Federal State Budgetary Educational Institution of Higher Education "North Ossetian State Medical Academy" of the Ministry of Health of the Russian Federation

Department of Otorhinolaryngology with Ophthalmology

APPROVED

minutes of the meeting of the Central Coordinating Educational and Methodological Council No. 5 of May 23, 2023

EVALUATION MATERIALS

in the discipline of Ophthalmology

the main professional educational program of higher education - the specialty program in the specialty 31.05.01 Medical care, approved on 24.05.2023.

for 4th year students

specialty 31.05.01 Medical care

Reviewed and approved at the meeting of the department "27" April 2023, protocol No. 9.

Head of the Department  Doctor of Medical Sciences E.T. Gappoeva

Vladikavkaz 2023

STRUCTURE OF EVALUATION MATERIALS

1. Title page
2. Structure of evaluation materials
3. Review of evaluation materials
4. Passport of evaluation materials
5. Set of evaluation tools:
   - questions to the module
   - questions to the offset
   - bank of situational tasks
   - standards of test tasks (with title page and table of contents)
   - tickets for the test

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СЕВЕРО-ОСЕТИНСКАЯ ГОСУДАРСТВЕННАЯ МЕДИЦИНСКАЯ АКАДЕМИЯ» МИНИСТЕРСТВА ЗДРАВООХРАНЕНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ

РЕЦЕНЗИЯ
на оценочные материалы по дисциплине Офтальмология для студентов 4 курса по специальности 31.05.01 Лечебное дело, частично реализуемое на иностранном языке

Оценочные материалы составлены на кафедре оториноларингологии с офтальмологией на основании рабочей программы дисциплины Офтальмология (2023), утвержденной 24.05.2023 г. и соответствуют требованиям ФГОС 3++ по специальности 31.05.01 Лечебное дело, частично реализуемое на иностранном языке.

Оценочные материалы включает в себя:

- вопросы к модулю
- вопросы к зачету
- банк ситуационных задач
- эталоны тестовых заданий (с титульным листом и оглавлением)
- билеты к зачету

Банк ситуационных задач включают в себя сами задания и шаблоны ответов. Все задания соответствуют рабочей программе дисциплины Офтальмология формируемым при ее изучении компетенциям, и охватывают все её разделы. Банк содержит ответы ко всем си туационным задачам.

Эталоны тестовых заданий включают в себя следующие элементы: тестовые задания, шаблоны ответов. Все задания соответствуют рабочей программе дисциплины Офтальмология формируемым при ее изучении компетенциям, и охватывают все её разделы. Сложность заданий варьируется. Количество заданий по каждому разделу дисциплины достаточно для проведения контроля знаний и исключает многократное повторение одного и того же вопроса в различных вариантах. Эталоны содержат ответы ко всем тестовым заданиям.

Количество билетов к зачету достаточно для его проведения и исключает неоднократное использование одного и того же билета во время зачета в течение одного дня. Билеты к зачету выполнены на бланках единого образца по стандартной форме, на бумаге одного цвета и качества. Билет к зачету включает в себя 3 вопроса. Формулировки вопросов совпадают с формулировками перечня вопросов, выносимых на зачет. Содержание вопросов одного билета относится к различным разделам рабочей программы дисциплины, позволяющее более полно охватить материал дисциплины.

Дополнительно к теоретическим вопросам предлагается банк ситуационных задач. Ситуационные задачи дают возможность объективно оценить уровень усвоения обучающимся теоретического материала при текущем контроле успеваемости и промежуточной аттестации. Сложность вопросов в билетах к зачету распределена равномерно.

Замечаний к рецензируемым оценочным материалам нет.

В целом, оценочные материалы по дисциплине Офтальмология способствуют качественной оценке уровня владения обучающимися профессиональными компетенциями.

Рецензируемые оценочные материалы по дисциплине Офтальмология могут быть рекомендованы к использованию для текущего контроля успеваемости и промежуточной аттестации на лечебном факультете у иностранных студентов 4 курса.

Рецензент:

Председатель ЦУМК хирургических дисциплин №1 *Цаллагова Л. В.*

М.П.
27.04.2023 г.

ВЕРНО: специалист по кадрам отдела кадров и документооборота ФГБОУ ВО СОГМА Минздрава России
_____ 20 ___ г.

ОТДЕЛ КАДРОВ И ДОКУМЕНТООБОРОТА

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ «СЕВЕРО-ОСЕТИНСКАЯ ГОСУДАРСТВЕННАЯ МЕДИЦИНСКАЯ АКАДЕМИЯ» МИНИСТЕРСТВА ЗДРАВООХРАНЕНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ

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Рецензент:

Директор ГАУЗ «Республиканский Офтальмологический центр МЗ РСО-А, к.б.н.,

Дзгоева И.С.

М.П.

27.04.2023

Passport of evaluation materials for the discipline Ophthalmology

№ №	Name of the supervised section (topic) of the disciplin /module	Code of the formed competence (stage)	Name of the evaluation tool
1	2	3	4
Type of control	**Interim certification**		
1.	Principles and methods of vision protection in children and adults. The role of the eye (part of the brain) in life. The role of light in the functioning of the optical-vegetative system of the photoenergetic system. The relationship of ocular pathology with common diseases in children and adults. Phylo-morphogenesis and anatomy of the visual organ. Developmental abnormalities.	GPC-4.	Test tasks, test tickets
2.	Methods of studying the eye and its appendages. The order of examination of the eye patient and the scheme of the medical history. Performing eye diagnostic and therapeutic manipulations.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
3.	Visual functions, starting at birth and in adults. Binocular nature of vision and its disorders.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
4.	The optical system of the eye. Actual problems of clinical refraction. Correction of ametropia (glasses, contact, laser, surgical).	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
5.	Diseases of the orbit, eyelids, conjunctiva and lacrimal organs.	GPC-4; PC-2; PC-3; PC-4. .	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
6.	Diseases of the cornea.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
7.	Diseases of the vascular membrane of the eye.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks,

			tickets for the assessment of practical skills, tickets for the test
8.	Diseases of the retina and optic nerve. Ocular manifestations of the most common common diseases of people of different ages, radiation damage.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
9.	Diseases of the lens.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
10.	Glaucoma.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
11.	Neoplasms of the visual organ.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
12.	Damage to the visual organ.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
13.	Occupational eye diseases.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
14.	Military and labor expertise.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
15.	Binocular vision. Strabismus.	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test

16. Module	Ophthalmology	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test
17. Set-off	Ophthalmology	GPC-4; PC-2; PC-3; PC-4.	Test tasks, situational tasks, tickets for the assessment of practical skills, tickets for the test

Questions about the module

1. Ophthalmology as a branch of surgery. Achievements of modern ophthalmology.
2. The structure of the visual analyzer. Its parts and their functions.
3. The structure of the fibrous capsule of the eye, its significance. Identification points on the eyeball.
4. Anatomy and histological structure of the cornea. Her nutrition. Features of the structure of the protein shell.
5. The vascular membrane of the eye, its parts, their functional features.
6. Anatomy and functions of the iris. Her congenital pathology.
7. Intraocular muscles, their function and innervation.
8. The structure of the ciliary body, its functional features. Choroid.
9. Anatomy and histology of the retina. A jagged line and a yellow spot. The ways of nutrition and functional features of the mesh shell.
10. Conducting nerve pathways and cortical visual analyzer. The importance of anatomical features in the topical diagnosis of the pathological process.
11. Front and rear camera eyes. Composition and functions of intraocular fluid. The value of the angle of the anterior chamber of the eye in the outflow of watery moisture.
12. Structure, anatomy and histology of the lens. Age-related features of the lens.
13. Anatomy and chemical composition of the vitreous body, its significance for the vital activity of the eye.
14. Blood supply and innervation of the eyeball.
15. Anatomy of the eye socket and its surrounding cavities, its contents. Fascia of the eye. The functional value of the orbit.
16. Anatomical features and congenital pathology of the eyelids, their functional purpose.
17. Structure and functional features of the connective membrane of the eye.
18. Anatomy and functional features of the tear-producing apparatus. The composition and functions of tears. Precorneal film.
19. Anatomy of the lacrimal apparatus.
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21. The concept of visual acuity. The angle of vision and its relationship with visual acuity. Methods of visual acuity research.
22. Theory of color perception. Methods of color vision research. Congenital and acquired color perception disorders.
23. Light perception and its research. Light and dark adaptation. Types of hemeralopia.
24. Field of view. Methods of investigation of this function. Boundaries and pathological changes in the visual field. Types of cattle.
25. Methods of investigation of the protective apparatus of the eye and its pathology.
26. Methods of investigation of the anterior segment of the eye and its pathology.
27. Methods of investigation of the posterior segment of the eye and its pathology.
28. The concept of diopter calculus. The eye as an optical system. Physical refraction of the eye.
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30. Methods of correction of refractive errors of the eye.Дальнозоркость.
31. Clinical features, severity and methods of correction.
32. Myopia. Clinical features, severity and methods of correction.
33. Progressive myopia. Diagnostics, medical examination, clinic and treatment.
34. Astigmatism, its types, diagnosis and correction.
35. Anisometropia and aniseikonia. Methods of correction of anisometropia. Special types of vision correction. Contact lenses.
36. Types of optical lenses and glasses. Indications for their use. Determination of the type and strength of optical glass.

37. Accommodation, its mechanism and age features. Paralysis and spasm of accommodation.
38. Inflammatory diseases of the eyelids. Etiology, clinic and treatment.
39. Diseases of the eyelids associated with the pathology of their muscular apparatus. Clinic and methods of treatment.
40. General symptoms of inflammatory diseases of the connective membrane of the eye. Principles of treatment.
41. Acute epidemic conjunctivitis. Etiology, clinical features, prevention and treatment.
42. Gonorrheic conjunctivitis. Etiology, prevention, clinical manifestations and treatment. Complications of geoplanner.
43. Diphtheria conjunctivitis. Etiology, prevention, clinic and treatment.
44. Diplobacillus (which restores) conjunctivitis. Etiology, clinic, treatment.
45. The main types of viral conjunctivitis. Features of the clinical picture. Principle of treatment.
46. Etiology, epidemiology, clinic and treatment of trachoma. Its complications and consequences.
47. Dacryoadenitis, causes, clinic and treatment of the disease. Schirmer's Sample. Mikulich and Sjogren syndromes.
48. Acute and chronic dacryocystitis. The reasons for the development. Functional tests for the patency of the lacrimal pathways. Principles of treatment of dacryocystitis.
49. Inflammatory diseases of the eye socket. Clinical manifestations and treatment principles. Exophthalmos.
50. General symptomatology of diseases of the cornea. Corneal syndrome. Infiltration of the cornea and its development. Types of vascularization of the cornea.
51. Corneal changes in shape and size. Classification of keratitis. The concept of corneal syndrome. Complications of keratitis.
52. Erosion and creeping ulcer of the cornea. Diagnosis, clinical manifestations, treatment principles. Methods of administration of antibiotics for corneal diseases.
53. Tuberculosis-allergic keratoconjunctivitis. Causes, clinic, diagnosis and treatment.
54. Deep parenchymal keratitis. Etiology, clinical course, differential diagnosis and treatment principles.
55. Superficial and deep viral keratitis. Clinical manifestations and features of the course. Diagnosis and treatment.
56. Outcomes of corneal diseases and their treatment. Principles of keratoplasty and keratoprosthetics.
57. Anterior uveitis. Etiology. Clinical picture. Principle of treatment. First aid for acute iridocyclitis. Complications of anterior uveitis and their treatment.
58. Choroiditis and chorioretinitis. Etiology, clinical manifestations and treatment.
59. Causes of lens opacity. Classification of cataracts according to the localization of the opacities. Diagnosis of cataracts.
60. Classification of cataracts By M.I. Averbach. Congenital and acquired cataracts. Principle of treatment.
61. Stages of development of age-related cataracts. Diagnosis and treatment. Types of cataract extraction.
62. Surgical treatment of cataracts. Secondary cataract. Aphakia. Signs of aphakia, ways to correct it. Implantation of an artificial lens.
63. Congenital cataract. The most common types of lens opacity. Principle of treatment.
64. Retinal changes in hypertension and kidney disease.
65. Changes in the retina in diseases of the blood. Leukemia, anemia, hemorrhagic purpura, erythremia.
66. Acute obstruction of the Central retinal artery. Causes, clinic, first aid and treatment.
67. Thrombosis of the retinal veins. Clinical manifestations and treatment principles.
68. Diabetic retinopathy. Classification, clinical manifestations, complications. Treatment of ocular manifestations of diabetes.

69. Retinal changes in rheumatoid arthritis. Clinical manifestations and treatment principles.
70. Retinitises. Central and metastatic retinitis. Diagnosis and clinical picture. Principle of treatment. Outcomes.
71. Toxoplasmosis of the retina. Diagnosis, clinic, treatment, and outcomes.
72. Pigmentary degeneration of the retina. Clinical implications. Treatment. Forecast.
73. Senile retinal dystrophy. Types of dystrophy, clinical manifestations.
74. Retinal detachment. The main causes of the pathology. Pathogenesis. Clinical picture and diagnosis. Principle of treatment.
75. Types of optic neuritis. Causes and clinical manifestations. Diagnosis and treatment principles.
76. Congestive optic disc. Ophthalmoscopic picture, differential diagnosis.
77. Optic atrophy. Clinical picture and treatment principles.
78. The concept of intraocular pressure. The circulation of intraocular fluid, the path of its outflow. Structure of the drainage system of the front camera angle.
79. Methods for studying intraocular pressure. Normal intraocular pressure and its changes.
80. The main types of glaucoma. General symptoms of glaucoma.
81. Congenital glaucoma. The main causes of the disease. Clinical manifestations and treatment principles.
82. Early diagnosis of primary glaucoma. Classification.
83. Acute attack of angle-closure glaucoma. Causes, pathogenesis and clinic. First aid for an acute attack. Differential diagnosis with iridocyclitis.
84. Types of glaucoma treatment. Secondary glaucoma.
85. The concept of binocular vision. Monocular and simultaneous vision. Methods of investigation of binocular vision.
86. Concomitant strabismus. Its causes, types and diagnostics. Principle of treatment.
87. Amblyopia. Pleoptic treatment.
88. Paralytic strabismus. Differential diagnosis with friendly strabismus. Principle of treatment.
89. Blunt injuries to the eye socket and appendages. Diagnosis, treatment principles.
90. Traumatic damage to the optical media and the contents of the eye of a non-penetrating nature. Diagnostics and clinic. Principle of treatment.
91. Damage to the posterior segment of the eye in blunt trauma. Their diagnosis and treatment.
92. Penetrating wounds of the eye. Classification according to the localization of damage. First aid.
93. Diagnosis of penetrating eye injuries. Determination of the presence of an intraocular foreign body and its localization.
94. Ways to remove intraocular foreign bodies. Metallosis of the eyes.
95. Complications of penetrating eye wounds. Sympathetic inflammation.
96. Eye burns, first aid and treatment. Electric light ophthalmia.
97. Benign and malignant neoplasms of the eye and appendage. Their diagnosis and treatment principles.
98. Types of glasses and their application.
99. Atropine, scopolamine, homatropine, adrenaline. Their effect on the eye, indications and contraindications to use.
100. Pilocarpine, armin, tosmilen, timolol, xalatan. Their effect on the eye, indications and contraindications to use.
101. The tetracaine, lidocaine, cocaine, inokain. Their effect on the eye, indications and contraindications to use.
102. Ways of introducing drugs into the eye. Indications for their use.

Questions for the test

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41. Acute epidemic conjunctivitis. Etiology, clinical features, prevention and treatment.
42. Gonorrheic conjunctivitis. Etiology, prevention, clinical manifestations and treatment. Complications of geoplanner.
43. Diphtheria conjunctivitis. Etiology, prevention, clinic and treatment.
44. Diplobacillus (which restores) conjunctivitis. Etiology, clinic, treatment.
45. The main types of viral conjunctivitis. Features of the clinical picture. Principle of treatment.
46. Etiology, epidemiology, clinic and treatment of trachoma. Its complications and consequences.
47. Dacryoadenitis, causes, clinic and treatment of the disease. Schirmer's Sample. Mikulich and Sjogren syndromes.
48. Acute and chronic dacryocystitis. The reasons for the development. Functional tests for the patency of the lacrimal pathways. Principles of treatment of dacryocystitis.
49. Inflammatory diseases of the eye socket. Clinical manifestations and treatment principles. Exophthalmos.
50. General symptomatology of diseases of the cornea. Corneal syndrome. Infiltration of the cornea and its development. Types of vascularization of the cornea.
51. Corneal changes in shape and size. Classification of keratitis. The concept of corneal syndrome. Complications of keratitis.
52. Erosion and creeping ulcer of the cornea. Diagnosis, clinical manifestations, treatment principles. Methods of administration of antibiotics for corneal diseases.
53. Tuberculosis-allergic keratoconjunctivitis. Causes, clinic, diagnosis and treatment.
54. Deep parenchymal keratitis. Etiology, clinical course, differential diagnosis and treatment principles.
55. Superficial and deep viral keratitis. Clinical manifestations and features of the course. Diagnosis and treatment.
56. Outcomes of corneal diseases and their treatment. Principles of keratoplasty and keratoprosthetics.
57. Anterior uveitis. Etiology. Clinical picture. Principle of treatment. First aid for acute iridocyclitis. Complications of anterior uveitis and their treatment.
58. Choroiditis and chorioretinitis. Etiology, clinical manifestations and treatment.
59. Causes of lens opacity. Classification of cataracts according to the localization of the opacities. Diagnosis of cataracts.
60. Classification of cataracts By M.I. Averbach. Congenital and acquired cataracts. Principle of treatment.
61. Stages of development of age-related cataracts. Diagnosis and treatment. Types of cataract extraction.
62. Surgical treatment of cataracts. Secondary cataract. Aphakia. Signs of aphakia, ways to correct it. Implantation of an artificial lens.
63. Congenital cataract. The most common types of lens opacity. Principle of treatment.
64. Retinal changes in hypertension and kidney disease.
65. Changes in the retina in diseases of the blood. Leukemia, anemia, hemorrhagic purpura, erythremia.
66. Acute obstruction of the Central retinal artery. Causes, clinic, first aid and treatment.
67. Thrombosis of the retinal veins. Clinical manifestations and treatment principles.
68. Diabetic retinopathy. Classification, clinical manifestations, complications. Treatment of ocular manifestations of diabetes.

69. Retinal changes in rheumatoid arthritis. Clinical manifestations and treatment principles.
70. Retinitises. Central and metastatic retinitis. Diagnosis and clinical picture. Principle of treatment. Outcomes.
71. Toxoplasmosis of the retina. Diagnosis, clinic, treatment, and outcomes.
72. Pigmentary degeneration of the retina. Clinical implications. Treatment. Forecast.
73. Senile retinal dystrophy. Types of dystrophy, clinical manifestations.
74. Retinal detachment. The main causes of the pathology. Pathogenesis. Clinical picture and diagnosis. Principle of treatment.
75. Types of optic neuritis. Causes and clinical manifestations. Diagnosis and treatment principles.
76. Congestive optic disc. Ophthalmoscopic picture, differential diagnosis.
77. Optic atrophy. Clinical picture and treatment principles.
78. The concept of intraocular pressure. The circulation of intraocular fluid, the path of its outflow. Structure of the drainage system of the front camera angle.
79. Methods for studying intraocular pressure. Normal intraocular pressure and its changes.
80. The main types of glaucoma. General symptoms of glaucoma.
81. Congenital glaucoma. The main causes of the disease. Clinical manifestations and treatment principles.
82. Early diagnosis of primary glaucoma. Classification.
83. Acute attack of angle-closure glaucoma. Causes, pathogenesis and clinic. First aid for an acute attack. Differential diagnosis with iridocyclitis.
84. Types of glaucoma treatment. Secondary glaucoma.
85. The concept of binocular vision. Monocular and simultaneous vision. Methods of investigation of binocular vision.
86. Concomitant strabismus. Its causes, types and diagnostics. Principle of treatment.
87. Amblyopia. Pleoptic treatment.
88. Paralytic strabismus. Differential diagnosis with friendly strabismus. Principle of treatment.
89. Blunt injuries to the eye socket and appendages. Diagnosis, treatment principles.
90. Traumatic damage to the optical media and the contents of the eye of a non-penetrating nature. Diagnostics and clinic. Principle of treatment.
91. Damage to the posterior segment of the eye in blunt trauma. Their diagnosis and treatment.
92. Penetrating wounds of the eye. Classification according to the localization of damage. First aid.
93. Diagnosis of penetrating eye injuries. Determination of the presence of an intraocular foreign body and its localization.
94. Ways to remove intraocular foreign bodies. Metallosis of the eyes.
95. Complications of penetrating eye wounds. Sympathetic inflammation.
96. Eye burns, first aid and treatment. Electric light ophthalmia.
97. Benign and malignant neoplasms of the eye and appendage. Their diagnosis and treatment principles.
98. Types of glasses and their application.
99. Atropine, scopolamine, homatropine, adrenaline. Their effect on the eye, indications and contraindications to use.
100. Pilocarpine, armin, tosmilen, timolol, xalatan. Their effect on the eye, indications and contraindications to use.
101. The tetracaine, lidocaine, cocaine, inokain. Their effect on the eye, indications and contraindications to use.
102. Ways of introducing drugs into the eye. Indications for their use.

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Department of Otorhinolaryngology with Ophthalmology
Faculty of Medical
Specialty medical business, partially implemented in a foreign language Course 4
Discipline Ophthalmology

Situational tasks

1. METHODS OF STUDYING THE ORGAN OF VISION

1. When viewed by side lighting, a white-gray opacity is visible in the cornea. The pericorneal injection of the eyeball is determined, which allows us to think about the inflammatory process in the cornea. What method of research can be used to clarify the localization and depth of the lesion of the cornea?

2. The doctor conducts a study of the patient's eye by the method of focal lighting. He gets the impression that there are newly formed vessels in the iris. However, they are very small and a larger visualization of them is needed for diagnosis. What examination can still be applied if working with a slit lamp is not available?

3. The patient has a small exophthalmus on the right. What research methods should be used to diagnose the process and determine the type of exophthalmos-true or false?

4. When estimating the width of the anterior chamber angle, a bright cross-section in the form of a spot with a diameter of 1.5-2 mm appeared in the area of the scleral part of the limb of the examined eye from the nasal side. What is the conclusion about the width of the front camera angle in this case?

5. When estimating the width of the angle of the anterior chamber, the glow in the nasal half in the scleral part of the limb of the examined eye is not caused. What is the conclusion about the width of the angle of the anterior chamber of this eye?

6. The patient was examined in transmitted light. Against the background of the red reflex, dark opacities are visible from the fundus. What processes can they be caused by? How to differentiate them? What additional research is needed for this?

7. The patient received a penetrating wound to the left eye with shards of glass. The wounds on the cornea are adapted and do not require surgical intervention. However, their nature suggests the presence of a foreign body (glass in the corner of the anterior chamber of the eye). On radiographs of the foreign body is not visible. What additional studies need to be carried out for a qualitative diagnosis?

8. When conducting a diaphanoscopic examination of the left eye in an elderly patient in the lower inner quadrant, the disappearance of the red reflex is determined. What kind of pathological process will allow you to think about the data of diaphanoscopy?

9. The patient complains of decreased vision in the right eye. The study of the optical status gives emmetropic refraction. Examination of the anterior segment of the eye revealed no pathological changes. What kind of research should be done?

10. In the emergency Department of a hospital appealed patient with complaints of foreign body sensation in the left eye. This feeling has appeared since yesterday's walk in a strong wind. After returning home, I washed my eye, but the feeling of mote did not disappear. When examining the cornea, the foreign body is not visible. What manipulations still need to be carried out to make sure that there is no foreign body?

Answers to situational problems.

1. Biomicroscopy of the eye is necessary.

2. It is possible to carry out a combined method by adding focal illumination by viewing the object through an additional 20.0 D lens or a binocular magnifier.

3. For the diagnosis of exophthalmos, exophthalmometry is necessary. To exclude false exophthalmos, a comparative ultrasound biometry of both eyes is performed. To clarify the process, it is necessary to conduct X-ray research methods, consult an endocrinologist.

4. The angle of the front camera is open, wide.

5. The front camera angle is closed or very narrow.

6. Opacities visible when examined in transmitted light may relate to transparent environments of the eye. Their presence in the moisture of the anterior chamber and vitreous body makes them mobile after the end of eye movement. Lens opacities and corneal opacities move with the movement of the eye. The decision on the position of opacities can be made after conducting a biomicroscopic study.

7. Gonioscopy, ultrasound, skeletal radiography.

8. Intraocular tumor.

9. Ophthalmoscopy.

10. Eversion of the eyelids.

2. VISUAL FUNCTIONS AND THEIR STUDY

11. When examining the patient's visual acuity according to the Sivtsev table, he does not see even the first line with his right eye from a distance of five meters. How can he continue the study of visual acuity?

12. During the examination of the patient, it was found that his left eye does not even see the doctor's fingers raised to the eye. Please indicate how to continue to conduct a study of visual acuity? What methods are available for this?

13. The patient after cataract extraction sees everything in blue. What are the causes of this phenomenon? What is it called?

14. After the blunt trauma of the left eye, the patient notes that everything around this eye sees in red, as if through a red light filter. What color perception disorder does the patient have? What are the possible causes? Therapeutic tactics.

15. During the perimetric examination, the patient was found to have right-sided hemianopsia. Perform a topical diagnosis of the pathological process. What are the further tactics in the treatment of the patient?

16. As a result of perimetry, it was revealed that the patient has a concentric narrowing of the boundaries of the visual fields of both eyes up to the tubular one. What diseases can give such a picture of the visual field?

17. When examining the field of vision for colors in the patient on the perimeter, it was found that the widest field of vision is available for blue, narrowing the field of vision for red, and especially for green. What pathology of the visual pathways can such a picture speak of?

18. The patient complains about the presence of a" curtain " in front of the right eye. She showed up a few days ago. When conducting perimetry, the loss of the upper half of the field of view is determined. What additional research needs to be done? What are the possible pathological processes that lead to such a change in the field of vision.

19. The patient underwent computer campimetry, which revealed the expansion of the blind spot boundaries and the appearance of relative cattle in the Bjerrum zone, which tend to merge. What disease, based on the data of perimetry, it is possible to suspect in the patient?

20. During campimetry, a central relative scotoma was detected in the patient. What diseases can give such changes in the field of vision?

21. In the neurological department there is a patient who needs to examine the boundaries of the visual fields, since the attending physician assumes that he has hemianopsia. Given the fact that the patient's condition is severe and he is not mobile, it is impossible to conduct perimetry and campimetry. What methods can be used to conduct this study?

22. The child came to the doctor's appointment with his mother. According to parents, with the onset of twilight, the child's vision deteriorates sharply. Objective research data. Visual acuity of both eyes = 1.0. The eyes are completely calm. The motor apparatus is not changed. Slight hyperemia of the eyelid edges. Anterior segment of the eyes without visible changes. The optical medium is transparent. The fundus was normal. Refractometrically-emmetropia. What additional research needs to be done? The intended diagnosis? Treatment?

Answers to situational problems.

11. It is necessary to bring the patient to the table until he sees the letters of the first line. It is possible to bring a table or use separate optotypes. Instead, you can show a different number of fingers. Visual acuity is calculated using the Snellen formula.

12. Examine light perception by directing light into the eye from different angles. It is possible to conduct tests of Meddoks.

13. *The removed natural lens has a yellow color. As a result, after the operation, there is a vision of the surrounding in blue – cyanopsia.*

14. *The patient has erythropsia. It may be the result of a hemorrhage. Resorption therapy is necessary.*

15. *Right-sided hemianopsia indicates a lesion of the left visual tract. MRT and CT scans, consultation and treatment of a neurologist are required.*

16. *Circulatory disorders in both posterior cerebral arteries, distant glaucoma, retinal pigment abiotrophy, etc.*

17. *Diseases of the optic nerve.*

18. *Loss of the upper half of the visual field can indicate various eye pathologies: retinal detachment, partial hemophthalmos, circulatory disorders, tumors, etc. It is necessary to conduct a biomicroscopic examination, thorough ophthalmoscopy, possibly ultrasound, fluorescent angiography.*

19. *Glaucoma.*

20. *Pathology of the retinal macula.*

21. *The control method.*

22. *Adaptometry is required. The child may have hemeralopia, against which there is a simple blepharitis. Hemeralopia is most likely functional in nature. Prescribe Group A vitamins.*

3. REFRACTION

23. A 28-year-old man came to see an optometrist with complaints of reduced vision in both eyes. With visometry, the visual acuity of both eyes is 0.3. There are no pathological changes in the eyes associated with their disease. How is it possible to determine the type of refractive error present in a patient if you only have a set of test optical glasses at your disposal?

24. When the child goes to the doctor, a decrease in visual acuity of both eyes is revealed. The child is 9 years old, studying in the second grade. When entering the school, he was examined by an optometrist. The visual acuity of both eyes was normal. Currently objectively. Visual acuity of both eyes = 0.1 with spherical glass –3.0 D = 1.0. Eyes are calm. Anterior segments of the eyes without visible pathology. The optical medium is transparent. The fundus was normal. Presumptive diagnoses? What additional research needs to be done? Treatment plan?

25. A 34-year-old patient went to the doctor with complaints of low vision in both eyes. Bad eyes for a long time, did not use glasses. In her school years, it was said that she had shortsightedness. Currently objectively. Visual acuity of the right eye = 0.09 with spherical glass –2.25. D = 0.3. Visual acuity of the left eye = 0.1 with spherical glass –2.0. D = 0.3. Eyes are calm. The front segments of the eyes are not changed. The optical medium is

transparent. The fundus was normal. What additional research needs to be done? What methods of vision correction can you offer the patient?

26. A 13-year-old child is observed for a long time by an optometrist at the place of residence. Taken on dispensary registration for myopia. Suffers from scoliosis. When taken into account at the age of 9, the degree of myopia was 1.5 D. The child does not wear glasses constantly. Currently objectively. Visual acuity of the right eye = 0.1 with a sphere-4.5. D = 0.8. Visual acuity of the left eye = 0.1 with a sphere – 5.0. D = 1.0. Eyes are calm. The front segments of the eyes are not changed. The optical medium is transparent. There are myopic cones on the fundus on both sides around the discs. On the periphery of the retina, dystrophic changes are outlined. After cycloplegia, refractometry was performed – myopia of both eyes up to 5.5 D. What additional studies should the child perform? A presumptive diagnosis? Recommended treatment?

27. A 23-year-old patient who has been suffering from progressive myopia since childhood. 10 years ago, she had scleroplasty on both eyes, after which myopia stabilized. Currently, the visual acuity of both eyes is 0.06 with a sphere of 7.5 D = 1.0. The patient does not want to wear corrective glasses. What other ways to correct the refractive error can be offered to her?

28. Parents brought a 9-year-old child to the optometrist at the request of the pediatrician. The child complains of headaches, especially in the evening after school. He doesn't complain about his eyesight. Visual acuity of both eyes = 1.0; but when corrected with positive lenses up to + 1.5 D, vision does not deteriorate. Eyes are healthy. Diagnosis? Additional research?

29. An 18-year-old student came to see an optometrist with complaints of poor vision in both eyes. Objectively: The vision of both eyes is 0.4, with skiascopy from 1 meter, it is found that the glass that neutralizes the shadow is equal to-3.0 D. What is the refraction of the student?

30. With an objective method of studying refraction in a patient using a shadow test, the shadow in the pupil area moves in the opposite direction of the movement of the mirror ophthalmoscope. What refraction was detected in the patient during this examination?

31. With an objective method of studying refraction in a patient using a shadow test, the shadow in the pupil area does not move. What does refraction correspond to in this case?

32. When examining the refraction of a 32-year-old patient in a subjective way, he with three glasses (–6.0 D, –6.5 D and –7.0 D) gives the same visual acuity. What is the refraction detected in a subjective way, in this case?

33. A 46-year-old patient complains of visual impairment when reading. He sees well into the distance. Visual acuity of both eyes = 1.0. The eyes are healthy. Diagnosis? Possible optical correction or therapeutic measures?

34. An engineer of the 51st year turned to an optometrist with complaints of fatigue, pain in the eyes, their redness in the evening, especially after long work with drawings. At this time, he notes that it is impossible to work with small objects at close range: their contours are blurred. Objectively. Visual acuity both eyes = 1,0. Eyes calm. The front segments are not changed. The optical medium is transparent. The fundus was normal. Diagnosis? Therapeutic measures?

35. A 26-year-old patient was consulted by an optometrist in the infectious diseases department. She complains that her vision is preserved in the distance, and the patient sees objects located near it is unclear. These complaints appeared two days ago. I felt bad about two days ago. About a week ago, I ate homemade canned mushrooms. Objectively: notes weakness, headache, dizziness, nausea, excessive vomiting, loose stools. Against the background of what infectious disease did visual disorders appear? What is the name of this visual pathology?

36. A 23-year-old patient complains of low vision in both eyes. Several times I went to the optometrist, but they can't pick up the glasses. Objectively. Visual acuity of the right eye = 0.3 with spherical glass –1.25. D = 1.0. Visual acuity of the left eye = 0.04 with spherical glass –5.5. D = 1.0. Eyes are calm. The front segments are not changed. The optical medium is transparent. The fundus of the right eye is normal. On the left, there is a myopic cone around the disc. When prescribing eyeglass correction, there are pain in the eyes and unpleasant sensations. Name the cause of asthenopia. How to help the patient?

37. An old woman who brought her grandson's broken glasses turned to the ophthalmologist's office. According to the woman, the young man can not come to an appointment with an optometrist, as he is being treated in a regional hospital. He badly needs glasses, as he can't read the text. Please ask the optometrist to prescribe glasses similar to the broken ones. How to help the old lady?

Answers to situational problems.

23. To determine the type of refraction, it is necessary to place a weak collective lens in front of the examined eye. With myopic refraction, the patient will notice a deterioration in the vision of this eye, and with hypermetropia-either an improvement or vision will remain the same.

24. In a child, it is possible to assume either true or false myopia, which occurred against the background of a spasm of accommodation. It is necessary to conduct an examination of the child in the conditions of cycloplegia by objective methods of studying refraction – skiascopy or refractometry. In the presence of myopia – optical correction, with spasm of accommodation-treatment of spasm.

25. Due to the fact that the spherical correction of myopia did not give a sufficient effect, and no visible changes were detected on the part of the eyes, it is necessary to assume the presence of astigmatism. For diagnosis, it is necessary to perform skiascopy or refractometry, as well as ophthalmometry. To conduct a spherocylindrical spectacle correction. If necessary, contact correction or refractive surgery.

26. It is necessary to perform ultrasound biometrics of the eye. The patient is expected to have progressive myopia. The operation is shown – scleroplasty.

27. The patient can be offered contact correction or refractive surgery.

28. The child can be assumed to have hidden farsightedness. To clarify the diagnosis, it is necessary to conduct a study of refraction by objective methods in conditions of cycloplegia.

29. *Myopia at 4.0 D.*

30. *Myopia.*

31. *Myopia in 1.0 D.*

32. *Myopia at 6.0 D.*

33. *The patient has initial manifestations of presbyopia. Eyeglass correction is required to work at close range with collective lenses +1.5 D.*

34. *The patient has presbyopia. Eyeglass correction is required to work at close range with +2.0 D collective lenses.*

35. *Against the background of botulism, the patient developed accommodation paralysis.*

36. *The patient has anisometropia accompanied by asthenopia. Full point correction is not possible. You can use glasses: for the right eye –1.25 D, and for the left –3.25 D. If the effect is insufficient, contact correction or refractive surgery should be recommended.*

37. *It is necessary to examine the type and strength of the optical lenses of broken glasses on a dioptrimeter. In its absence-to conduct a study by neutralization.*

4. DISEASES OF THE EYELIDS

38. A 14-year-old patient went to the doctor in connection with the appearance of edema of the eyelids of the right eye. The swelling appeared suddenly last night. He was not accompanied by any subjective complaints from the visual organ. The day before, the patient ate chocolate. Noted itching of the inner surfaces of the forearms. Currently objectively. Visual acuity of both eyes = 1.0. The eyelids of the right eye are swollen. The swelling is soft, the skin above it is not hyperemic, to the touch – normal temperature. The eye slit is narrowed. The conjunctiva is not injected. The eye is calm. The front segment has no visible changes. The fundus was normal. The left eye is healthy. The intended diagnosis? Treatment?

39. After a walk in the park, a 23-year-old patient complained of pronounced swelling of the eyelids of the left eye. Objective examination revealed: Visual acuity of both eyes = 1.0. The right eye is healthy. The eyelids of the left eye are swollen, more upper. Against the background of the edematous eyelid, a pale papule with a hemorrhagic point center is visible. Your presumed diagnosis? Therapeutic measures?

40. A two-month-old girl was brought to the oculist of the children's polyclinic for examination, who until recently grew and developed normally. A few days ago, she began to take her breasts badly, her movements were sluggish, and her temperature rose to 38.3°. The parents noticed a swelling in the upper eyelid area of the right eye. The eyelid does not rise well, its skin is tense, hyperemic, with a bluish tinge. The examination showed, in addition, that there were no external deviations from the norm on the part of the eyeball. As if there is no special difference in the visual ability of both eyes. What is the first disease to think about?

41. A 54-year-old patient suffers from furunculosis. Around Sundays ago, barley appeared on the lower eyelid of his right eye, for which he took heat treatments. The barley did not dissolve and did not open. Currently, edema of the lower eyelid is determined, the skin in this area is tense, hyperemic, hot to the touch. The eye slit is narrowed. Purulent discharge from the conjunctival sac. Shrunken crusts at the medial junction of the eyelids. Palpation of the outer third of the lower eyelid is sharply painful, fluctuation is determined. The conjunctiva of the eyeball is moderately injected according to the conjunctival type. The visual acuity of both eyes did not change. Make a diagnosis. What therapeutic measures are necessary?

42. A 19-year-old patient went to an optometrist with complaints of swelling and redness of the upper eyelid of the left eye. The day before was at the cosmetologist. He denies allergies to medicines and cosmetics. Objectively: Visual acuity of both eyes = 0.4 with a sphere – 1.5 D = 1.0. The upper eyelid of the left eye is swollen, the skin is tense, hyperemic, hot to the touch. Palpation is sharply painful. Yellowish pus shines through the skin. Diagnosis? Therapeutic measures?

43. A 19-year-old patient complains of redness and thickening of the eyelids, itching. Objectively. Visual acuity of both eyes = 0.8 with spherical glass +1.75 D = 1.0 (The patient does not wear glasses). The edges of the eyelids are hyperemic, thickened. Foamy discharge at the corners of the eye. Palpation of the edges of the eyelids is completely painless. Frequent blinking of the eyelids is noted. The conjunctiva of the eyeball, and especially the eyelids, is somewhat hyperemic. Thickened Meibomian glands shine through it. What diagnosis can the patient make? Diagnostic and therapeutic measures?

44. A 20-year-old student came to consult an optometrist. Complaints: redness of the edges of the eyelids, itching, a feeling of blockage in the eyes, eye fatigue during prolonged exercise, especially in the evening with artificial light. Objectively: the vision of both eyes is 0.1, with glass +3.0 D = 1.0. The edges of the eyelids are thickened, moderately hyperemic. Your diagnosis?

45. A 37-year-old patient turned to an optometrist with complaints of redness of the eyelids, heaviness in the eyelids, itching, lacrimation. From the anamnesis, it was found that the patient repeatedly took significant doses of antibiotics for somatic diseases. She was treated for dysbiosis. Objectively. Visual acuity of both eyes = 1.0. The edges of the eyelids are thickened, hyperemic, as if oiled. The patient often blinks. There is a foamy discharge at the corners of the eyes. The conjunctiva of the eyelids is hyperemic. Thickened Meibomian glands shine through it. Make a diagnosis. Plan the necessary diagnostic measures. Prescribe treatment.

46. A 6-year-old child suffers from helminthiasis, for which he is currently undergoing treatment. I turned to the optometrist with complaints of pronounced itching of the eyelids. Objectively. Visual acuity of both eyes = 0.9. The edges of the eyelids are hyperemic, thickened. The skin of the eyelids at the roots of the eyelashes is covered with small, bran-like scales of gray color. The edges of the eyelids are painless on palpation. Frequent blinking of the eyelids. There is a foamy discharge at the corners of the ocular fissure. Make a diagnosis of the disease. What medical and diagnostic measures should be carried out?

47. The disease began in a patient 36 years after his stay in Africa. Complaints of redness of the eyelids and eyes, incorrect growth of eyelashes. Objectively: visual acuity of both eyes = 0.3 with spherical glass –2.5 D = 1.0. The edges of the eyelids are hyperemic, thickened.

The eyelashes are shriveled into bunches, sometimes facing the eyeball, sometimes madarosis is noted. There are purulent crusts on the edges of the eyelids. When they are separated, a bleeding ulcerative surface appears. The conjunctiva of the eyelids and eyeball is smooth, moderately injected. Perform a differential diagnosis of the disease. What therapeutic measures should be recommended?

48. A 30-year-old patient complains of redness and thickening of the edge of the upper eyelid of the left eye, itching. His disease is not associated with anything. Objective: visual acuity of both eyes = 1.0. The upper eyelid is swollen, the skin is hyperemic, the costal edge is thickened. Palpation determines soreness at a certain point of the costal edge. There is no discharge from the conjunctival sac. The conjunctiva of the eyelids is hyperemic. A presumptive diagnosis? Therapeutic measures?

49. After suffering from hypothermia at work, a 40-year-old patient had a seal with reddening of the skin on the lower eyelid of the right eye. Within two days, it increased. The swelling also spread to the upper eyelid. Objective examination revealed: visual acuity of both eyes = 1.0. On the affected eyelid, an infiltrate with a purulent head at the apex is determined at the outer costal edge. The eyeball is intact. Diagnosis? Therapeutic measures?

50. A 24-year-old patient had a pea-sized tumor on the upper eyelid of her left eye a few weeks ago. The skin above the tumor is mobile. The formation itself is soldered to the underlying tissues. On the part of the conjunctiva, it shines through with a grayish color, around the conjunctiva it is thickened and hyperemic. Palpation of the tumor is painless. Visual acuity of both eyes = 1.0. Diagnosis? Treatment?

51. After a hypertensive crisis in a 68-year-old patient, the left eye slit does not close. There is an asymmetry of the face, smoothness of the nasolabial fold on the left. The lower eyelid does not adhere to the eyeball, the eversion of the lacrimal point. When you try to close your eyelids, the eye slit remains open. Visual acuity of both eyes = 0.5 (not corresponding). Eyes are calm. Partial opacities of the lens. On the fundus on both sides of the phenomenon of hypertensive retinopathy. Diagnosis? What research needs to be done? How to prevent the cornea from drying out?

52. A 55-year-old patient went to the polyclinic for an appointment with an optometrist. Complaints: lacrimation and eye irritation, which increases in the morning after sleep. Anamnesis: it was found out that 6 months ago an operation was performed on the eyelids – blepharoplasty. When viewed on the cornea is determined by the point keratopathy. The lacrimal points are submerged in the lacrimal lake. When asked to close the eye, incomplete closing of the eyelids is detected. Diagnosis?

53. In a 45-year-old patient who has applied to an optometrist, the objective status is as follows: Visual acuity of both eyes = 1.0. The upper eyelid of the left eye is lowered, covering the cornea almost half. At the same time, along with the lowering of the upper eyelid, there is a sinking of the eyeball and a narrowing of the pupil. How can you assess the existing state? What specialists do you need to consult? Principles of treatment of the patient?

54. A 26-year-old patient walks with his head thrown back high. The upper eyelids of both eyes are lowered. Visual acuity of both eyes = 1.0. The eyes are healthy. Diagnosis? Therapeutic measures?

55. A 62-year-old patient turned to an ophthalmologist with complaints of narrowing of the left eye slit. Objectively. Visual acuity of both eyes = 1.0. During external examination, a

decrease in the width of the eye slit on the left is determined due to the fact that the upper eyelid is slightly lowered. The mobility of the eyelid and the growth of eyelashes are not disturbed. The other appendages of the eye are not altered. Eyes calm. The pupil of the left eye is somewhat narrower than the right. The pupils ' response to light is preserved. Subject departments without visible changes. What are your tactics in diagnosing the disease? What pathology can be assumed? Additional research? Therapeutic measures.

56. A 34-year-old patient complained of narrowing of the right eye slit. These phenomena appeared two weeks ago. An objective study revealed the following. Simultaneously with the lowering of the upper eyelid, there is a sinking of the eyeball and a narrowing of the pupil. What is the name of the described symptom complex? What are the causes of its occurrence? Therapeutic measures?

57. A 42-year-old patient, who received a chemical eye burn at work about three years ago, was treated in a hospital, but after the burn, the vision of both eyes decreased. Currently complains of lacrimation, redness, feeling of a foreign body under the eyelid of the right eye, decreased vision of both eyes. Objectively. The anterior ciliated edge of the lower eyelid faces the eyeball. Eyelashes rub on the cornea. Visual acuity of the right eye = 0.2 (not correlated). Visual acuity of the left eye = 0.6 (not correlated). The right eyeball is injected according to the pericorneal type. On the cornea of the right eye, there are superficial erosions and old stromal opacities over the entire surface of the cornea. The cornea of the left eye paracentral of clouding in the stroma. Otherwise, the front segments are not changed. Other optical media are transparent. The fundus was normal. Diagnosis? Treatment?

58. A 76-year-old patient complains of lacrimation, redness of both eyes, decreased vision. He suffers from chronic conjunctivitis, for which he receives regular treatment. Objective data. Visual acuity of both eyes = 0.3 (not corresponding). The lower eyelids droop downwards. The costal edges do not adhere to the eyeball. The conjunctival surface of the eyelid is exposed. The conjunctiva is hypertrophied in the lower arch. Tear points are turned out. Conjunctival injection of the eyeball. Anterior segment of the eyes without visible changes. When examined in passing light, black spikes are visible against the background of the red reflex. The fundus was normal. Diagnosis? Treatment?

59. A 46-year-old patient suffers from renal failure with recurrent edema of the eyelids. Recently, I began to notice an "increase" in the upper eyelids. When contacting an optometrist objectively. Visual acuity of both eyes = 0.6 with sphere +1.0. D = 1.0. On the upper eyelids, at the outer corners of the eye slit, there is a hanging fold of thinned skin. Eyes calm. The front segments are not changed. The optical medium is transparent. The fundus was normal. Diagnosis? Treatment?

60. A newborn child has a skin semilunar fold at the inner corner of both eyes, passing from the upper eyelid to the lower one. In the form of a membrane, this fold partially covers the inner corner of the eye and, thereby deforming the configuration of the eye slit, gives the eyes a Mongoloid appearance. Name the pathology. Determine the possible treatment.

61. A newborn child was brought to the eye office of the children's polyclinic for consultation. On objective examination, it was found that between the upper and lower eyelids of both eyes there are quite thick skin bridges. Your diagnosis? Is treatment possible? If so, what are the therapeutic measures?

Answers to situational problems.

38. The patient has allergic Quincke's edema. Prescribe desensitizing drugs.

39. Insect bite. Treatment is usually not required: after a few hours, the swelling spontaneously disappears.

40. First of all, you should think about the possible phlegmon of the eye socket.

41. The patient has an abscess of the lower eyelid. It is shown that the abscess is opened and drained, and antibacterial therapy is performed.

42. The patient has an abscess of the upper eyelid. Its opening and drainage are shown. The holding of antibiotic therapy.

43. Against the background of hypermetropia, the patient developed simple blepharitis. Correction of refractive error is required. Treatment of the edges of the eyelids with alcohol, eyelid massage is shown. Instillation into the conjunctival sac of sulfacyl-sodium or zinc sulfate. For the eyelids and for the eyelids hydrocortisone ointment.

44. Simple blepharitis.

45. The patient has Meibomian blepharitis. Massage of the eyelids with evacuation of the contents of the Meibomian glands is shown. Possible applications on the eyelids of antibacterial drugs, instillation of antibiotics, sulfonamides, corticosteroids. Similar ointments on the edges of the eyelids.

46. The patient has scaly blepharitis. It is necessary to treat helminthiasis. Treatment of the edges of the eyelids with alcohol, eyelid massage is shown. Instillation into the conjunctival sac of sulfacyl-sodium or zinc sulfate. For the eyelids and for the eyelids hydrocortisone ointment.

47. The patient has mild myopia, ulcerative blepharitis, accompanied by trichiasis and madarosis. Carefully remove all crusts after softening them with fish oil, vaseline oil. The first 2-3 days of ulceration sites should be extinguished with alcohol or 1% alcohol solution of brilliant green. Quickly remove the phenomenon of inflammation of the application on the edges of the eyelids of cotton strips moistened with solutions of one of the antibiotics, if they are not allergic. Tampons are applied for 10-15 minutes up to 4 times a day. At night, the edges of the eyelids are smeared with 10-20% sulfacyl, 0.3% floxal or 0.5% hydrocortisone ointment. Incorrectly growing eyelashes to epill.

48. 48. The existing symptoms are likely to indicate inflammation of the sebaceous gland or hair follicle of the eyelash-barley. In the stage of incipient inflammation, it is sometimes enough to lubricate the skin at the site of infiltration 2-3 times with 70% alcohol or 1% solution of diamond green to 70% alcohol. In the eye, a 30% solution of sulfacyl-sodium, or solutions of antibiotics, is instilled 6-8 times a day. Dry heat, UHF therapy are shown.

49. The patient has barley of the upper eyelid. Inside antibiotics salicylates, topical antibacterial drops. With abscess formation – the opening of the abscess with drainage.

50. The patient has chalazion. In the initial stage, prolonged-acting corticosteroids are injected into the chalazion area, for example, kenalog, and the eyelid skin is lubricated

with 0.1% dexamethasone ointment (maxidex). In case of inefficiency, surgical removal is radical.

51. *A patient with left lagophthalmos, incipient age-related cataracts, hypertonic retinopathy of both eyes. Facial nerve paralysis is usually treated by neurologists. Ophthalmic care is to protect the eye from excessive drying and infection. To do this, several times a day, a 30% solution of sulfacyl-sodium, sterile vaseline oil, or ointments containing sulfonamides or antibiotics are instilled into the conjunctival cavity. With persistent lagophthalmos, surgical treatment is indicated – partial suturing of the eye slit (blepharoraphy) or pulling the atonic lower eyelid to the eye. About the beginning of cataracts prescribe the administration of drugs quinax, catachrom etc. Needs monitoring and treatment of a therapist about hypertension.*

52. *Lagophthalmos.*

53. *Gorner's syndrome. Consultation and treatment of a neurologist. Principles of treatment – carrying out rehabilitation treatment of paralysis of the cervical sympathetic node.*

54. *The head thrown back is called the "stargazer" pose. The patient has partial bilateral congenital ptosis. Treatment is surgical.*

55. *Ptosis may be caused by paralysis of the cervical sympathetic nerve. What can be indicated by the asymmetry of the pupils. Perhaps this is a manifestation of Gorner's Syndrome. We need to perform an exophthalmometry. You need to consult a neurologist.*

56. *The patient has Gorner's syndrome. We need to perform an exophthalmometry. It is necessary to consult and treat a neurologist.*

57. *Cicatricial inversion of the lower eyelid, erosion, stromal opacities of the cornea of the right eye. Opacity of the cornea of the left eye. Treatment – plastic surgery of the lower eyelid of the right eye, Laying antibacterial ointments in the right conjunctival sac. In the future, keratoplasty may be performed.*

58. *Spastic eversion of the eyelids, chronic conjunctivitis, incipient age-related cataract of both eyes. Seeding of the discharge from the conjunctival sacks on the microflora is carried out and antibacterial treatment is prescribed in accordance with the obtained data. In the absence of an effect, surgical treatment is performed. About the beginning of cataracts prescribe the administration of drugs quinax, catachrom etc.*

59. *The patient has mild hypermetropia, blepharochalasis of both eyes. Prescribe correction of hypermetropia, surgical treatment of blepharochalasis.*

60. *The child has epicanthus. Surgical treatment is necessary, which can be carried out in the long term.*

61. *Filiformis ankyloblepharon. The child needs early surgical treatment – dissection of adhesions and eyelid surgery.*

5. DISEASES OF THE CONJUNCTIVA

62. The disease in a 6-year-old child began first on one and then on the other eye. Complaints of blockage, itching and burning in the eye, redness and the presence of discharge from the eye. In the morning, the eyelids are glued together with dried pus. Objectively. Visual acuity of both eyes = 0.9 (not corresponding). The eyelids are somewhat edematous. On the eyelashes are single crusts of dried pus. Pronounced conjunctival injection of the eyeball. The conjunctiva is slightly swollen and thickened. On the upper eyelid hypertrophy of the papillae. There are streaks of pus in the conjunctival vault. The front segments of the eyes are not changed. The optical medium is transparent. The fundus was normal. Diagnosis? Medical and preventive measures?

63. A child of 8 years old, a few days ago there was redness, a feeling of blockage in both eyes. When contacting an optometrist objectively. Visual acuity of both eyes = 0.8 (not corresponding). Edema of the eyelids and spot hemorrhages on the conjunctiva of the sclera are noted. On the mucous membrane of the eyelids and lower arch there are whitish-gray films that are easily removed with wet cotton wool. After their removal, the loosened, but not bleeding conjunctival tissue is exposed. In the surface layers of the perilimbal region, small infiltrates, sometimes eroded. Subject parts of the eyes without visible pathology. Diagnosis? Treatment?

64. In kindergarten, a large number of children fell ill with conjunctivitis at once. Most are characterized by lacrimation and photophobia. There is a strong swelling of the conjunctiva in the lower transitional fold. Petechial hemorrhages in the conjunctiva. The conjunctiva of the eyeball is visible in the eye slit in the form of two edematous triangles of gray color. Small superficial infiltrates in the cornea. Subject areas of the eyes and visual acuity without pathology. There is malaise, fever, headache. Diagnosis? The causative agent of the disease? Prevention and treatment measures?

65. In the endocrinology department of the RKB, 4 people fell ill at the same time. Against the background of malaise, fever, runny nose, headache, redness of the eyes, lacrimation, photophobia appeared. Objectively: the conjunctiva is sharply hyperemic, there are petechial hemorrhages, follicles, point infiltrates on the cornea. A day later, 5 more people fell ill. Make a diagnosis and explain the treatment strategy.

66. In a 37-year-old patient, conjunctivitis began acutely, first on one and then on the other eye. The patient notes a general malaise. The eyelids are swollen, hyperemic, with a bluish tinge. On the conjunctiva of the eyelids and eyeball, white-gray films are tightly soldered to the conjunctiva. The cornea is intact. The subject parts of the eye are not changed. The fundus was normal. What additional data is needed to make a diagnosis? The possible diagnosis? Therapeutic measures?

67. Three days after birth, the child developed severe hyperemia and swelling of the eyelids of both eyes. The eyelids are tight. It is almost impossible to open the eye slit. From the eye slit there is a discharge of the color of meat slops. The conjunctiva is sharply hyperemic, loosened. The eyeball, with no visible changes. The possible diagnosis? Diagnostic and therapeutic measures?

68. On the 4th day after birth, the child had a sharp edema and hyperemia of the eyelids. The eye slit opened with difficulty, there sukrovichnye discharge from the conjunctival SAC. Make a diagnosis. Prescribe treatment. What is the prevention of the occurrence of this disease?

69. The newborn has an abundant purulent discharge from the left eye. The eye slit is narrowed. The eyelids are swollen. The conjunctiva of the eyelids is hyperemic, edematous. The right eye is healthy. What kind of eye disease can you think of? What studies should be carried out to clarify the diagnosis? What treatment does the child need?

70. A 32-year-old patient complains of severe edema and hyperemia of the eyelids of the left eye, purulent discharge and inability to open the eye. The patient notes a rise in temperature in the evening, muscle pain. Objectively. The right eye is healthy, visual acuity = 1.0. On the left, visual acuity is reduced to 0.2 and is not corrected by optical glasses. Pronounced edema and hyperemia of the eyelids. Eyelids soft to the touch, testovatoy. From the eye slit, an abundant purulent discharge of yellow color, creamy consistency. The conjunctiva is swollen, loosened. On the cornea surface erosion and small infiltration. Subject areas without visible pathology. Diagnosis? Additional research? Treatment?

71. A 34-year-old patient complains of severe itching, burning and pain in the eyes, frequent painful blinking. He has been ill for about two months. Objectively. Visual acuity of both eyes = 0.4 with sphere + 1.5. D = 1.0. On external examination, pronounced redness at the corners of the eye slit attracts attention. The skin here is macerated, eczematous altered, with wet cracks. The conjunctiva of the eyelids in the area of the corner of the eye slit is loosened and hyperemic. The discharge is scanty, in the form of viscous mucus. The eyeballs are intact. Diagnosis? Treatment?

72. After returning from a tourist trip to Asia, a 38-year-old patient had a feeling of "blockage" in his eyes, they turned red. When contacting a doctor objectively. Visual acuity of both eyes = 1.0. The eyelids are slightly swollen. On the conjunctiva of the eyelids, follicles and hypertrophied papillae are visible. The conjunctiva is infiltrated. Eyes calm. The front segments of the eyes are not changed. The optical medium is transparent. The fundus was normal. What additional research needs to be done? Possible diagnoses? Treatment?

73. In a 24-year-old black patient, there is redness in both eyes, slight swelling of the eyelids, mucous discharge from the eyes. Visual acuity of both eyes = 0.7 (not correlated). The conjunctiva of the eyelids and eyeball is moderately injected, hypertrophied. An inflammatory infiltrate in the form of a film permeated with blood vessels descends into the cornea from the upper half of the limb. The rest of the optical medium is transparent. The fundus was normal. What additional research needs to be done? Classify a possible disease? What types of treatment can be used?

74. A young man of 19 years turned to the optometrist. Complaints: a feeling of "sand", itching, redness in the eyes, mucous discharge from the eyes. Two days ago, when he woke up in the morning, he found it difficult to open his eyelids. Anamnesis: it was found out that before that he swam in the lake. Objectively: the conjunctiva of the eyes is edematous and hyperemic, moderate purulent discharge. The functions of the eye are preserved. The front and back segments are not changed. Diagnosis? Treatment? What are the possible complications?

75. On reception to the oculist's mother brought her son for 12 years. The boy had an increase in body temperature and nasopharyngitis. After that, first one, and then the other eye turned red. On objective examination, a small swelling and redness of the eyelids, a slight mucous discharge, lacrimation are determined. The conjunctiva of the eyelids and transitional folds is injected, edematous, with small follicles located mainly in the lower arch. Pinpoint hemorrhages in the conjunctiva. On the mucous membrane are delicate, grayish-white

films, easily removed with a wet cotton swab. Give the most appropriate possible diagnosis. Prescribe treatment.

76. A 42-year-old patient came to the consultation. My right eye got sick about a week ago. Then the left eye became inflamed. Complaints of redness of the eyes, pain, a feeling of blockage, lacrimation. Objectively: visual acuity of both eyes = 0.7 (not corresponding). Slight swelling of the eyelids, hyperemia and infiltration of the conjunctiva of the eyelids, especially in the lower arch. Hyperemia and edema also extend to the conjunctiva of the sclera. On the conjunctiva of the lower eyelid, multiple small, transparent follicles are detected. The detachable is insignificant. Enlargement and soreness of regional parotid lymph nodes. There are multiple, pinpoint, subepithelial opacities on the cornea. Make a diagnosis of the disease. Prescribe the necessary treatment.

77. In a 36-year-old patient, the disease began acutely with redness, sharp pain in the right eye, a feeling of a foreign body, photophobia, the appearance of lacrimation, mucopurulent discharge. Edema of the eyelids quickly appeared. In this case, the conjunctiva is sharply hyperemic, infiltrated, small follicles are visible. Almost the entire conjunctiva of the sclera is captured by hemorrhages from small multiple petechiae to extensive hemorrhages. Small-point epithelial infiltrates in the cornea. What kind of disease the patient has can be assumed. Prescribe adequate treatment.

78. A 40-year-old woman turned to the optometrist. Complaints: itching in the eyes. Anamnesis: it was found that the itch appeared a week ago. Before that, she was mowing the grass. Objectively: the vision of both eyes is 1.0. The conjunctiva of the eyelids is hyperemic, edematous, mucous discharge. Make a diagnosis. Make a treatment plan.

79. A 53-year-old patient turned to an optometrist with complaints of redness of the left eye, deterioration of the vision of this eye. On examination, it was established; visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.7 (not corresponding). The conjunctiva of the eyeball is injected, more from the inside. The conjunctiva of the eyelids is calm. On the inner side of the cornea in the form of a tongue, the conjunctiva creeps, tightly soldered to the corneal tissue and permeated with blood vessels. In other parts of the cornea is transparent. The front camera is of medium depth, with transparent moisture. The iris and the pupil without apparent pathology. In the plane of the pupil, gray opacities are visible at the periphery in side lighting. In the passing light, they look dark against the red reflex. The fundus of the eye without a visible pathology. Make a diagnosis of diseases. Outline a treatment plan.

80. A 45-year-old combine operator applied for an appointment with an optometrist at the RKB polyclinic. Complaints: redness of both eyes. Anamnesis: redness lasts for a long time, does not go away when drops are instilled. Objectively: the vision of both eyes is 1.0. On the conjunctiva of the eyeballs in the inner segment there is a thickening, penetrated by vessels, which extends to the cornea. Diagnosis? What are the causes of these films? Treatment?

81. A 47-year-old patient with complaints of redness of both eyes and the presence of secretions turned to the oculist at the reception. In addition, the patient is concerned about stomatitis, nasopharyngitis. There are inflammatory phenomena in the genital area. Objectively. Visual acuity of both eyes = 1.0. The conjunctiva of the eyelids and eyeball is sharply injected. Purulent discharge in the arches. Single precipitates on the cornea. What kind of syndrome can you think about in the presence of such a clinic? Diagnostic measures. Treatment.

82. A 30-year-old patient complained of sudden redness of the right eye, the appearance of photophobia, a feeling of "sand" in the eye, lacrimation, which appeared 3 days ago, and today similar symptoms, but not so pronounced, occurred in the left eye. Objectively: pronounced edema of the eyelids, hyperemia of the conjunctiva in the area of the transitional fold. Small petechial hemorrhages in the conjunctiva of the upper eyelid, slight Muco-purulent discharge. Diagnosis? Therapeutic measures?

Answers to situational problems.

62. Acute bacterial conjunctivitis. The patient needs to instill a 30% solution of sulfacyl sodium into the eyes three to four times a day. Laying in the conjunctival sac of 1% tetracycline ointment.

63. Pneumococcal conjunctivitis. The patient needs to instill a 30% solution of sulfacyl sodium into the eyes three to four times a day. Laying in the conjunctival sac of 1% tetracycline ointment.

64. Acute epidemic conjunctivitis. Is caused by Bacillus Koch-Weeks. The patient must be isolated. The patient should be instilled into the eyes every 2-4 hours 30% solution of sulfacyl-sodium, 0.3% solution or ointment of tobramycin, floxal. Those in contact with it are instilled with a 30% solution of sulfacyl-sodium 3-4 times a day.

65. Epidemic conjunctivitis. It is necessary to instill in the eyes every 2-4 hours a 30% solution of sulfacyl-sodium, 0.3% solution or ointment of tobramycin, floxal. Those in contact with it are instilled with a 30% solution of sulfacyl-sodium 3-4 times a day.

66. The patient has conjunctival diphtheria. To clarify the diagnosis, it is necessary to conduct bacteriological studies. The patient is immediately isolated in the infectious diseases department, where the entire complex of general treatment is carried out by an infectious diseases doctor. Ophthalmic appointments consist in washing the conjunctival cavity with antiseptic solutions (3% boric acid solution, 1:5000 potassium permanganate solution, 1:5000 furacillin), frequent instillation of 20% sodium sulfacyl solution or penicillin. At night, 1% erythromycin ointment or 0.3% floxal ointment is laid behind the eyelids. When the cornea is affected, drugs that improve its regeneration are used.

67. The child has gonoblennorrhea. The diagnosis should be confirmed by laboratory bacteriological studies of the discharge from the conjunctival cavity. Assign frequent instillation of penicillin solutions (20,000 units / ml): in the first 2 hours – every 15 minutes, then – every hour. In recent years, the use of instillation of Ocarina, the floksal – 6-8 times a day. At night, 1% erythromycin ointment is laid behind the eyelids. General treatment consists in the appointment of sulfonamides and antibiotics in doses appropriate to age.

68. The child has gonoblennorrhea. Assign frequent instillation of penicillin solutions (20,000 units / ml): in the first 2 hours – every 15 minutes, then – every hour. In recent years, the use of instillation of Ocarina, the floksal – 6-8 times a day. At night, 1% erythromycin ointment is laid behind the eyelids. General treatment consists in the appointment of sulfonamides and antibiotics in doses appropriate to age. Prevention of neonatal gnobleniya provided by law and is mandatory. Immediately after birth, the child is wiped with a cotton swab moistened with a 2% solution of boric acid, a 1% solution of silver nitrate (Matveev-Krede method) or a 20% solution of sulfacyl-sodium is instilled into the

eye once with an interval of 10 minutes, or 1% erythromycin or 1% tetracycline ointment is laid once for the eyelids.

69. *You can think of gonoblennorrhea of newborns. The diagnosis should be confirmed by laboratory bacteriological studies of the discharge from the conjunctival cavity. Assign frequent instillation of penicillin solutions (20,000 units / ml): in the first 2 hours – every 15 minutes, then – every hour. In recent years, the use of instillation of Ocarina, the floksal – 6-8 times a day. At night, 1% erythromycin ointment is laid behind the eyelids. General treatment consists in the appointment of sulfonamides and antibiotics in doses appropriate to age.*

70. *Gonoblennorrhea. The diagnosis should be confirmed by laboratory bacteriological studies of the discharge from the conjunctival cavity. Assign frequent instillation of penicillin solutions (20,000 units / ml): in the first 2 hours – every 15 minutes, then – every hour. In recent years, the use of instillation of Ocarina, the floksal – 6-8 times a day. At night, 1% erythromycin ointment is laid behind the eyelids. General treatment consists in the appointment of sulfonamides and antibiotics in doses appropriate to age.*

71. *The patient has angular blepharoconjunctivitis, mild hypermetropia. An effective remedy is a 0.5-1 % solution of zinc sulfate or a combination of it with boric acid, which is instilled 3-4 times a day for 1-1.5 months. Use 0.3% solution of gentamicin, 0.1% solution of diclofenac sodium (drops "Naklof"). At night, 1% tetracycline ointment is laid behind the eyelids.*

72. *Laboratory diagnostic tests are of crucial importance: microscopy of conjunctival scrapings to detect cytoplasmic inclusions, bacterioscopy by fluorescent antibodies, immunoassay of blood serum to detect chlamydia antigen. Possible diagnoses of trachoma and other chlamydial or follicular conjunctivitis. It is possible to apply conservative and surgical treatment.*

73. *It is necessary to examine the eyelids with their eversion. Laboratory diagnostic studies are of crucial importance: microscopy of conjunctival scrapings to detect cytoplasmic inclusions, bacterioscopy by fluorescent antibodies, immunoassay of blood serum to detect chlamydia antigen. Most likely, the patient has a stage II trachoma. It is possible to apply conservative and surgical treatment.*

74. *Epidemic chlamydial ("pool "or" bath") conjunctivitis. Treatment. Instillation of 0.3% okacin solution 4-6 times a day, laying 1 % tetracycline ointment behind the eyelid at night.*

75. *The child has adenovirus conjunctivitis or pharyngoconjunctival fever. Administered 6-8 times a day installation of ophthalmoferon and interferonogenic: Poludan, cycloferon, of Reaferon. An ointment of antiviral drugs is placed behind the eyelid. After a week, apply a 0.1 % dexamethasone solution, 1 % hydrocortisone ointment, non-steroidal anti-inflammatory drugs (0.1% diclofenac sodium solution).*

76. *The patient has "dry eye" syndrome. Given the presence of general symptoms, it is possible to assume Sjogren's disease. It is necessary to put a sample of the Schirmer. Treatment is symptomatic. Appointment of eye moisturizers.*

77. *Epidemic hemorrhagic keratoconjunctivitis. Frequent instillations of ophthalmoferon in combination with its interferon inducers (poludan, paraaminobenzoic acid), angioprotectors and corticosteroids are required (after 2 hours). To suppress concomitant*

bacterial infection, antibiotic drops are prescribed (0.25% levomycetin solution, 0.01% miramistin solution, 0.05% Vitabak drug, etc.). Inside askorutin, 1 tablet 2-3 times a day.

78. Pollinozy conjunctivitis. Topically applied instillation of patanol, Alameda, lekrolin, 0.1% solution of dexamethasone, diclofenac drops 3-4 times a day. General treatment consists in the appointment of hyposensitizing and antihistamines. The most effective method is specific hyposensitization with the appropriate pollen allergen, which is carried out by an allergist.

79. The creeping of the conjunctiva in the form of a tongue on the cornea from the inside, is called pterygium. Opacities on the periphery of the lens are a sign of incipient cataracts. Pterygium requires surgical treatment. Given the sufficiently high vision of this eye, it is possible to carry out conservative treatment with drugs that stimulate metabolic processes in the lens.

80. Pterygium usually develops in people of mature age who are long in the wind, or in an atmosphere containing harmful chemical irritants and dust particles. Pterygium removal is shown.

81. Possible ocular manifestation of Stevens-Johnson syndrome. You need to do a blood test, where leukocytosis with a shift to the left, eosinophilia, acceleration of ESR is possible. Prescribe general desensitizing therapy, corticosteroids, symptomatic treatment. In case of eye damage, corticosteroids (dexamethasone in the form of drops and ointments), antibacterial agents for the prevention and treatment of secondary antibacterial infection (boric acid, sodium sulfacyl, fucitalmic) are used. In connection with the development of dry keratoconjunctivitis, it is necessary to prescribe artificial tear preparations (lacrisin, oftagel, vidisik gel). In case of consequences-surgical intervention.

82. Acute epidemic conjunctivitis. Apply instillation in the eye of antimicrobial drugs every 2-4 hours for several days. As the inflammation subsides, the frequency of instillation is reduced to 3-5 times a day.

6. DISEASES OF THE LACRIMAL ORGANS

83. An 8-year-old child has a sore throat. Against the background of this disease, there was a pronounced swelling, and hyperemia in the outer part of the upper eyelid of the right eye. This area is somewhat painful on palpation. The conjunctiva of the eyeball is injected and somewhat edematous in the upper-outer part. The eyeball is displaced downwards and inwards, its mobility is somewhat limited. Visual acuity of the right eye = 1.0. The front segment is not changed. The optical medium is transparent. The fundus was normal. The child has a feverish condition. Diagnosis? Treatment?

84. A 42-year-old patient had a lacrimal gland removed after injury. Subsequently, there were no signs of a violation of tear production, why?

85. An ophthalmologist was contacted by a 34-year-old patient with complaints of swelling in the upper-outer corners of the orbits of both eyes. The swelling appeared about two weeks ago. Pain was not accompanied. The patient notes a slight diplopia. In addition, the patient is concerned about an increase in the parotid and submandibular lymph nodes, for which it is observed in the maxillofacial surgeon. Objectively. Visual acuity of both eyes = 1.0.

Swelling and swelling of the tissues at the upper-outer corner of the orbit, its palpation is painless. A small exophthalmos with a mixture of eyeballs inside and down. With the eversion of the eyelids, enlarged and somewhat hyperemic palpebral parts of the lacrimal glands are visible. Eyeballs without visible pathology. What diagnostic measures should be carried out? Diagnosis? Treatment?

86. A 64-year-old woman turned to an ophthalmologist with complaints of dry eyes, a feeling of pain, burning, "sand" in the eyes, the presence of a viscous mucous discharge at the corners of the eyes in the morning. This condition has been bothering the patient for about a year, but she could not turn to an optometrist due to the fact that she was receiving treatment for polyarthritis. The patient is concerned about dry mouth, cough, about which she turned to an endocrinologist and therapist. Objectively. Visual acuity of both eyes 0.5 (not corresponding). There is a slight photophobia, hyperemia of the eyelids with thickening of their edges. The conjunctiva is somewhat loosened. In the conjunctival cavity, mucus is separated in the form of thin grayish threads. The lacrimal meniscus is absent. The cornea is rough, with epithelial "threads"on its surface. What additional research is necessary for the patient? Treatment?

87. A 56-year-old patient is concerned about constant lacrimation. The tear state is objectively determined. The eyelids are in the correct position, calm. Visual acuity both eyes = 1,0. Eyes calm. The front segments of the eyes are not changed. The optical medium is transparent. The fundus was normal. What additional studies should be performed to diagnose the disease? Possible diagnoses for different study outcomes?

88. A 48-year-old patient complained of redness and lacrimation of the left eye. The complaints appeared about a week ago. The patient independently began to instill drops of ciprolet into the eye, but the condition did not improve. The disease is associated with getting into the eye of a speck when cleaning the room. When treated objectively: visual acuity of both eyes = 1.0. On the left, redness of the inner half of the eyelid is determined, purulent discharge. In the area of inflammation, there is swelling, redness of the skin. The lacrimal papilla is sharply protruding. When pressing on the area of the lacrimal tubule, a purulent discharge with an admixture of a thick mush-like mass is squeezed out of the lacrimal point. Make a diagnosis. Therapeutic measures?

89. Patient 30 years old, plasterer. I went to the clinic with complaints of lacrimation, purulent discharge from the right eye, swelling of the skin at the inner corner of the eye. Ill for 2 years. Objectively: redness of the skin, tumor-like formation in the area of the lacrimal sac on the right. When pressed on it – purulent discharge from lacrimal points. The nasal test on the right is negative. When washing the lacrimal tracts on the right, the liquid flows out through the upper lacrimal canal. The X-ray shows the shadows of the lacrimal tubules, connecting with the shadow of the enlarged lacrimal sac, sharply narrowed at the entrance to the nasolacrimal canal. ENT doctor's consultation: curvature of the nasal septum. Diagnosis? Treatment?

90. A 61-year-old patient complains of persistent lacrimation on the right, purulent discharge from the eye. Suffers from right-sided sinusitis. Visual acuity of both eyes = 1.0. On examination, the tear state on the right is determined. Bean-shaped soft protrusion of the skin under the inner cleavage of the eyelids. When pressed on it, pus is released from the tear points. Diagnosis? Diagnostic and therapeutic measures?

91. Almost from the moment of birth, the child is 8 months old, suffering from conjunctivitis of the left eye. Periodically treated with short-term improvement. Purulent discharge from

the eye almost does not disappear completely. The current antibacterial and anti-inflammatory treatment is ineffective. Objectively. Slight swelling and hyperemia of the edges of the eyelids. The cilia are glued into bundles with dried pus (more at the medial corner of the eye). Purulent discharge from the eye. Tear state. The conjunctiva of the eyelids is moderately injected. The eye is almost calm. The optical medium is transparent. The fundus was normal. What additional research needs to be done? Diagnosis? Treatment?

92. A 45-year-old patient complains of constant lacrimation from the right eye, especially on the street. Lacrimation has been bothering for 2 years. Objectively. Visual acuity of the right eye = 1.0. The position of the eyelids and lacrimal points is correct, when pressing on the area of the lacrimal sac-there is no discharge. There is a tear state. The color tear-nose test is negative. When washing the lacrimal tract, the fluid does not pass into the nose, it returns through the upper lacrimal point. The eye is calm. The optical medium is transparent. The fundus of the eye without pathology. TOD = 21 mmHg. Visual acuity of the left eye = 1.0. The eye is healthy. The tear-nose test is positive, when rinsed, the liquid passes freely into the nose. TOS = 21 mm Hg. Diagnosis? Treatment?

93. Within a few days, a 52-year-old patient with a medial junction of the eyelids of the left eye developed pronounced edema and hyperemia of the tissues, accompanied by sharp pain when touched. There is an increase in temperature, general malaise, headache. Objectively: pronounced edema and hyperemia of tissues in the medial junction of the eyelids of the left eye is determined. The swelling spreads to the eyelids, cheek and back of the nose. Palpation of tissues is painful, local temperature is elevated. The eye slit is closed. Enlarged submandibular lymph nodes. When opening the eye slit, a small hyperemia and swelling in the lower transitional fold are visible. Visual acuity is not reduced. Eyes calm. Diagnosis? Additional research? Therapeutic measures?

94. A 23-year-old patient complains of redness of the eyes, a feeling of a foreign body, lacrimation. Complaints appeared after working in production with a computer. Objectively. Visual acuity of both eyes = 0.7 (not corresponding). Moderate edema of the eyelids. Mixed injection of the conjunctiva. The posterior rib of the lower eyelids has practically no lacrimal meniscus. Lingering thick discharge in the conjunctiva. Papillae are hypertrophied. The surface of the cornea is rough. On it in the form of threads epithelial outgrowths. Subject parts of the eyes without visible changes. Diagnosis? Therapeutic measures?

Answers to situational problems.

83. Right-sided dacryoadenitis. Prescribe dry heat, UHF therapy, inside-sulfonamides, antipyretics, analgesics; intramuscularly and topically-injections of antibiotics. With suppuration, an incision is made, followed by drainage of the abscess and the application of dressings with a hypertensive solution.

84. In the normal state, the lacrimal fluid produced by the conjunctival accessory lacrimal glands is used to wet the eyeball. The lacrimal gland comes into action only when crying.

85. To diagnose the disease, it is necessary to perform an X-ray of the eye sockets. In the absence of indications of a neoplastic process, you can think of Mikulich's syndrome. Short-focus radiotherapy of the lacrimal glands is indicated.

86. Sjogren's syndrome. Treatment is symptomatic. Apply kettleshulme medications of different viscosity: teardrop natural lakrisin, oftagel, vidisic, lubricant will ecrivit (gemodez). The blockade of the lacrimal tubules with silicone obturators is becoming widespread.

87. It is necessary to put the tubular and nasal samples. If both tests are negative, narrowing of the lacrimal points or tubules should be assumed. With a negative nasal test - obstruction of the nasolacrimal canal.

88. Canaliculitis – inflammation of the lacrimal tubule. Conservative treatment is ineffective. Shown: splitting of the tubule along its back wall, removal of the contents, treatment of the cavity with a 1% solution of diamond green or methylene blue, the appointment of disinfectant drops.

89. Chronic dacryocystitis Surgery is indicated – dacryocystorinostomy.

90. Chronic dacryocystitis. Conduct a tubular and nasal test. Washing of the lacrimal ducts. Perform their contrast radiography. In the absence of permeability of fluids in the nose are shown surgery – dacryocystorhinostomy.

91. Long-term presence of purulent discharge from the eye can speak in favor of dacryocystitis of newborns. The child should be given a tubular and nasal test. In the absence of patency of fluid in the nose, massage the lacrimal sac. If the manipulation is unsuccessful-washing of the lacrimal ducts or probing of the lacrimal nasal canal.

92. The patient has an obstruction of the lacrimal nasal canal. X-ray examination of the skull and contrast radiography of the lacrimal ducts are performed. Consult the patient with an otorhinolaryngologist. As a medical event shows the operation dacryocystorhinostomy.

93. Phlegmon of the lacrimal sac. Functional tests are carried out for the patency of the lacrimal ducts. In the midst of inflammation, general treatment with the use of antibacterial agents is prescribed. Locally recommended: dry heat in different types, UHF therapy, quartz irradiation. Timely treatment prevents spontaneous opening of the phlegmon. When a fluctuating abscess is formed, it is opened with drainage and washing of the purulent cavity with antibiotics. After the acute symptoms subside perform a dacryocystorhinostomy.

94. The patient has "dry eye" syndrome. Treatment is symptomatic: the appointment of artificial tears.

7. DISEASES OF THE CORNEA

95. A 17-year-old patient complained of visual impairment in both eyes, which was more pronounced on the right side. Vision began to decline about four years ago, the disease is not associated with anything. Objectively. Visual acuity of the right eye = 0.06 with a sphere –7.0 D and a cylinder –2.0 D axis 95° = 0.3. The eye is calm. The cornea is slightly clouded in the center and appears "pointed". Front camera is of medium depth with a transparent moisture. Subject parts of the eye without visible pathology. Visual acuity of the left eye = 0.1 with a sphere –2.0 D and a cylinder –2.0 D = 0.7. The eye is calm. There are no visual changes in the eyeball. Refractometry of right eye is not possible because of the blurring of labels. Complex reverse myopic astigmatism is defined on the left. What additional research needs to be done? Diagnosis? Therapeutic measures?

96. A 32-year-old patient came to see an ophthalmologist with complaints of low vision in both eyes. Visual acuity of the right eye = 0.1 (not corr.). Visual acuity of the left eye = 0.09 (not correlated). During external examination of the patient, some shortening of the eye slit attracts attention. The eyelids cover part of the pupil. The eyeballs are constantly twitching in a horizontal direction. The cornea is reduced in size to 8 mm. The front camera seems a bit too small. The optical medium is transparent. The fundus of the eye without a visible pathology. With ultrasound biometry, the anteroposterior axis of the eyeballs is 18.1 mm. Diagnose the existing pathology. Identify therapeutic measures.

97. A 37-year-old patient came to an ophthalmologist for a follow-up examination after suffering from viral keratitis of the left eye more than a month ago. Complaints of reduced vision in this eye. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.7 (not corr.). The eye is calm. At 4 o'clock on the cornea creep from the conjunctiva, passing through the limb branching vessels of bright red color. In the same place, there is a gentle stromal peripheral opacity of the cornea. Subject areas without visible pathology. What is the name of the newly formed vessels and the existing turbidity? Therapeutic measures?

98. A 16-year-old patient complains of lacrimation, feeling of a foreign body in the left eye. In the morning, I accidentally "hooked" my eye with my fingernail. Objectively. Mild edema of the eyelids with blepharospasm. Visual acuity of the left eye = 0.6 (not corr.). Lacrimation. The eyeball is weakly injected according to the pericorneal type. The surface of the cornea appears rough. Subject departments and the fundus of the eye without a visible pathology. The right eye is healthy. What additional diagnostic manipulations should be performed? Diagnosis? Treatment?

99. The patient is 35 years old and has consulted an optometrist. Complaints: photophobia, lacrimation, feeling of a foreign body, decreased vision in the right eye. Development of the present disease: three days ago, while walking in the forest, I received an injury to my right eye with a branch. Objective: visual acuity of the right eye 0.1, not corrected, photophobia, lacrimation, blepharospasm. Mixed injection of the eyeball. On the cornea, the infiltrate is yellow. The infiltrate zone is stained with 1% fluorescein solution. Your intended diagnosis? Treatment?

100. A 60-year-old patient complained of pain and decreased vision in her right eye. From anamnesis - 3 days ago accidentally got a branch on the eye, I did not go to the doctor and was not treated. Objectively. Visual acuity of the right eye = 0.1 (not corr.). The right eye slit is sharply narrowed. Pronounced mixed injection of the eyeball. In the center of the cornea, a grayish-yellow infiltrate with a diameter of 4-5 mm with a loose surface is visible. In the anterior chamber, a whitish strip of pus is 2 mm high. The iris pattern is blurred, the pupil is narrow. Reflex from the fundus is not visible. Intraocular pressure palpation Tp. Visual acuity of the left eye = 0.5 sph. + 1.0 D= 1.0. The eye is healthy. Diagnosis? Treatment?

101. A 52-year-old patient came to see an ophthalmologist. He complains of low vision in his right eye. From the anamnesis, it was found out that three years ago he suffered ulcerative keratitis, for which he was treated in an ophthalmological hospital. The treatment was prolonged. Currently, objectively: Visual acuity of the right eye = 0.1 (not corr.). The eye is calm. On the cornea paracentrally at 7 o'clock there is a rather rough opacity of the cornea, to which the pupillary edge of the iris is pulled up. Due to this, the pupil is deformed. When instilling mydriatics, the existing spike does not break, the pupil expands

unevenly. Iris without signs of inflammation. Near the spike is atrophic. In the plane of the pupil, the lens with the presence of minor cortical opacities. In the passing light, a red reflex, against which opacities of the lens in the form of black spokes are visible. The fundus of the eye without features. Visual acuity of the left eye = 1.0. The eye is healthy. Make a diagnosis. What therapeutic measures are necessary?

102. A 62-year-old patient is treated by an ophthalmologist for ulcerative keratitis of the left eye. Currently objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.4 (not corr.). The eye is almost calm. Paracentrically on the cornea at the site of the former ulcer, there is a depression that is not stained with fluorescein. Parallel vessels of brick color, appearing as if from under the limb, stretch to it at the limb. What is the name of this condition of the cornea and the existing type of corneal vascularization?

103. A 61-year-old patient, while working on a plot of land, got a piece of earth in his right eye. When contacting an optometrist a few days ago, a foreign body was removed from the conjunctiva of the upper eyelid. However, the feeling of a foreign body continues to bother. Decreased vision, there were pains in the eye. Objectively. Visual acuity of the right eye = 0.09 (not corr.). Slight edema and hyperemia of the eyelids. Pericorneal injection of the eyeball. The cornea is edematous. Paracentral on the cornea is a sickle-shaped ulcer with a covered edge. In the anterior chamber, pus fills it by 1/3. The iris is edematous, its pattern is blurred. The pupil is narrow, does not react to light. In the passing light, the red reflex. The fundus cannot be seen. Diagnosis? Treatment?

104. A 38-year-old patient turned to an optometrist. Complaints: feeling of a foreign body in the left eye, decreased vision, photophobia, lacrimation. The development of a real disease: a week ago, something got into the left eye. I tried to remove the foreign body myself. I didn't bury any drops. I didn't go to the doctor right away. Objectively: the visual acuity of the right eye is 0.01, not corrected. Photophobia, lacrimation. Pronounced mixed injection. In the center of the cornea, ulceration with a purulent-infiltrated bottom and a covered edge facing its center. At the bottom of the anterior chamber, the level of pus is determined. Diagnosis? What additional research should be done? Where did the pus form in the anterior chamber? What is the treatment strategy in this case?

105. Patient R., 48 years old, went to the optometrist with complaints of redness of the right eye, pain in the eye and a feeling of a foreign body. Ill for about a week. I didn't go to the doctor. Objectively. Visual acuity of the right eye = 0.05 (not corr.). Moderate edema and hyperemia of the eyelids. The eyeball is sharply injected in a mixed type. The cornea in the center is ulcerated, at the bottom of the ulcer is a small black bubble. The edges of the ulcer are infiltrated. The cornea is swollen. At the bottom of the anterior chamber is a strip of pus. The iris pattern is blurred. The pupil is narrow, weakly reacts to light. The underlying parts of the eye are not visible due to reduced corneal transparency. Visual acuity of the left eye = 1.0. The eye is healthy. Diagnosis? Treatment?

106. A 56-year-old patient is treated in a hospital for an ulcer of the cornea of the right eye. During the morning examination by the attending physician, the patient complained that at night she had severe lacrimation and pain in her right eye. On examination, a pronounced mixed injection of the right eye is determined. The ulcer located paracentrically at 17 o'clock still has edges covered with purulent discharge. In the center of the ulcer, a part of the iris that has fallen into the opening of the cornea is visible. Folding of the descemet shell. The front camera is very small. The hypopion that was present the day before is not visible. The pupil is deformed, pulled up to the opening of the cornea. In the passing light,

the red reflex. What happened to the patient? What further therapeutic measures are needed?

107. When contacting a doctor, a pronounced photophobia in a 5-year-old child is evident. He tries to turn away from the light, to cover his eyes with his hands, almost constantly squinting. It is not possible to check visual acuity in such conditions. Objectively. Severe blepharospasm. Moderate swelling of the eyelids of the right eye and weakly expressed-on the left. Pericorneal injection of the right eyeball. On the cornea at 7 o'clock a grayish translucent nodule with a diameter of about 3 mm, separated from the limb by 4 mm. A bundle of superficial vessels extends to the nodule. Anterior chamber and subject parts of the eye without visible pathology. The left eye is healthy. Diagnosis? Treatment?

108. Parents brought a 10-year-old girl to consult a pediatric ophthalmologist. Complaints of photophobia, lacrimation. These symptoms do not occur for the first time. Objective: Visual acuity of the left eye is 0.6, not corrected. Eyelids are swollen, pronounced blepharospasm, pericorneal injection. On the cornea near the limb of a rounded shape, a surface infiltrate of grayish color. The child is pasty, the skin is pale in color. A presumptive diagnosis? On the basis of what data can a final diagnosis be made?

109. A 57-year-old patient is treated by an optometrist for a long time for blepharitis. Two days ago, pinpoint infiltrates appeared on the left eye along the edge of the cornea. There was a corneal syndrome – photophobia, lacrimation, pericorneal injection, more pronounced according to the areas of corneal infiltration. Infiltrates have a tendency to merge and ulcerate. Make a diagnosis. Recommend the treatment.

110. A 38-year-old patient complains of lacrimation, photophobia of the right eye. A history of hypothermia, frequent colds, bronchitis. Objectively. Visual acuity of the right eye = 0.03 (not corr.). The eyeball is injected according to the mixed type. The cornea is almost diffusely cloudy. Against the background of general turbidity in the deep layers, large yellowish-gray foci are distinguished. Combined vascularization of the cornea. The underlying parts of the eye are almost invisible. The left eye is healthy. A presumptive diagnosis? Additional research? Therapeutic measures?

111. An 11-year-old child has mild photophobia, moderate lacrimation. Visual acuity of both eyes = 0.6 (not corr.). Weak pericorneal injection of both eyes. In the corneal stroma at the limb, diffuse infiltration of grayish-white color is symmetrical in both eyes, respectively, at 5 and 7 hours. The infiltrate consists of individual dots, dashes, and strokes. Deep corneal vascularization. Subject parts of the eyes without visible changes. A presumptive diagnosis? Additional research? Treatment? Forecast?

112. A 56-year-old patient complains of lacrimation, photophobia and a feeling of a foreign body in the right eye. The disease started about a week ago. The patient does not associate the onset of the disease with anything. Objectively. Visual acuity of the right eye = 0.8 (not corr.). Pronounced pericorneal injection of the eyeball. On the cornea, the infiltrate is gray in the form of a tree branch, stained with fluorescein. Biomicroscopy shows that the infiltrate consists of small vesicles located in the epithelium. Subject parts of the eye without visible pathology. The left eye is healthy. Diagnosis? Treatment?

113. A 40-year-old patient turned to an optometrist. Complaints: feeling of a foreign body in the left eye, photophobia, lacrimation, decreased vision in this eye. The development of this disease: two weeks ago I had the flu on my feet, and yesterday there were complaints from the eye. Objectively: The visual acuity of the left eye is 0.2, not corrected.

Blepharospasm, a mixed injection of the eyeball with a predominance of pericorneal. On the cornea, an infiltrate resembling the shape of a tree, located in the surface layers. Corneal sensitivity is reduced. Make a diagnosis. What drugs are prescribed for local treatment?

114. 2 days after the flu with a high fever, a 42-year-old patient noted the appearance of a foreign body sensation in the left eye, photophobia, and lacrimation. I went to the clinic to see an optometrist. On examination: blepharospasm, mixed injection of the eyeball with a predominance of pericorneal. On the cornea – infiltrate, resembling the shape of a tree and located in the surface layers of the cornea. In the lower part of the infiltrate – small bubbles. The infiltration zone is stained with fluorescein. Corneal sensitivity is reduced. Diagnosis? Therapeutic measures?

115. The disease of the right eye in a 29-year-old patient began with a decrease in the vision of the left eye. When examining the patient, the ophthalmologist revealed the following changes: Edema of the epithelium in the central part of the cornea extending to the stroma, in which a clearly defined rounded focus of grayish-white color with an intensely white spot in the center was formed. The cornea is thickened according to the focus, and the rest of the normal length. Folds of the descemet membrane and thickening of the posterior epithelium. Precipitates on the posterior surface of the cornea are localized according to the infiltrate. What disease does an ophthalmologist deal with? Recommend the treatment.

116. A 45-year-old patient went to the polyclinic at the place of residence to see an optometrist. Complaints: reduced vision in the right eye, photophobia, lacrimation, pain in this eye. Objective: Visual acuity of the right eye is 0.02, not corrected. Blepharospasm, photophobia, lacrimation. Pronounced mixed injection of the eyeball. In the deep layers of the central part of the cornea – gray, disc-shaped infiltrate. The iris is changed in color. Diagnosis? Treatment?

117. A 47-year-old patient suffered viral keratitis of the left eye 4 years ago. He was treated for a long time, relapses of the disease were observed. Currently objectively. Visual acuity of the right eye = 0.5 with spherical glass-1.75 D = 1.0. The eye is healthy. Visual acuity of the left eye = 0.08 (not corresponding). The eyeball is not injected. From the limb to the center, vessels of bright red color grow into the cornea, which branch and anastomose with each other. In the center of the cornea there is a limited opacity of gray-white color, irregular shape. The peripheral parts of the cornea are transparent. The subject parts of the eye are not changed. Diagnosis? Treatment?

118. A 28-year-old patient complained of a feeling of blockage, photophobia, redness and decreased vision of the right eye to the oculist of the district hospital. Ill for 4 days. The right eye hurt for the first time. He did not notice any injuries to his right eye, but about 10 days ago he suffered an acute respiratory illness. Objectively: visual acuity of the right eye = 0.5 (not corr.); visual acuity of the left eye = l,0. The right eye – a mixed injection of the eyeball, in the optical zone of the cornea – a superficial infiltrate in the form of a "twig". Deep-lying parts of the eye without pathology. Left eye without pathological changes. Formulate a diagnosis, justify it. What additional research methods should be used to confirm the diagnosis? Doctor's tactics.

119. A 54-year-old patient is treated for a long time without much effect for keratitis of the right eye. Currently objectively. Visual acuity of the right eye = 0.1 (not corr.). The right eyeball is moderately injected according to the mixed type. There is a limited infiltrate of grayish-white color on the cornea. On its surface, "nodules" are visible, giving it a curd-like appearance. Edema and infiltration of the cornea has the appearance of circles. The first

circle is jagged, saturated with pus, the second is translucent and narrow, the third is in the form of a narrow roller with a sharp transition to healthy tissue. In front of the camera pyramid-shaped, hypopyon. Subject parts of the eye without visible pathology. Visual acuity of the left eye = 1.0. The eye is healthy. What kind of keratitis should you think about in this case? Prescribe the necessary treatment.

120. An objective examination of the left eye of a 44-year-old patient revealed that the sensitivity of the cornea is completely absent, the disease proceeds without the phenomena of photophobia, lacrimation, but with a pronounced pain syndrome. Eye irritation is insignificant, does not correspond to the severity of corneal manifestations. Edema of the surface layers and exfoliation of the epithelium. Erosion engulfs almost the entire cornea. In the center of the infiltration with ulceration of the stroma. A presumptive diagnosis? Treatment?

121. A 29-year-old patient has been suffering from facial acne for many years. Treated by a dermatologist. At present, the limbus of the left eye has slightly raised above the level of the cornea, sharply limited grayish-white infiltrates with superficial vessels. They slowly spread under the epithelium, the vessels are located near the limb in the form of a basket, surrounding the infiltrate. What corneal lesion can be assumed in the patient? Treatment?

122. An ophthalmologist was contacted by a 46-year-old patient with complaints of decreased vision in the right eye. An objective study revealed the following. Visual acuity of the right eye = 0.1 (not corresponding). There are pains of a neuralgic nature. Hyperesthesia of the skin of the eyelids and forehead. Corneal sensitivity is almost nonexistent. The patient notes deterioration of vision within one and a half months. The same amount of time there are neuralgic pains. I didn't go to an ophthalmologist. On the cornea, a peripheral ulcer in the form of a half-moon. The ulcer has a covered edge and a clear border with healthy tissue, its surface is abundantly vascularized. Subject departments without visible changes. Visual acuity of the left eye = 1.0. The eye is healthy. Diagnosis? Therapeutic measures?

123. During the professional examination, a 25-year-old patient was found to have low vision in his left eye. The development of this disease: ten years ago, in a chemistry lesson, he received an acid burn to his eye. He was treated in the eye department. At discharge, the vision in this eye was lower than in the right. Objective: Visual acuity of the left eye is 0.02. The eye is calm. In the center of the cornea, a whitish-gray opacity of a rounded shape, with a diameter of 9 mm, is determined, the surface of the opacity is smooth, shiny. Diagnosis. Treatment tactics?

124. A woman, 84 years old, who complains of pain in her left eye, was brought from a distant village. On examination, the phenomena of irritation of both eyes are noted: photophobia, lacrimation, blepharospasm, however, hyperemia is expressed only in the left eye. Redness is located around the limb, in the direction of the arches, it clearly weakens. Corneal sensitivity is preserved. Against the background of diffuse opacity of the entire surface of the cornea, an intense yellowish spot is noticeable in its optical center. To better consider the opacity of the cornea and determine the safety of its cover, what solution should be dropped into the conjunctival sac?

Answers to situational problems.

95. The patient is prescribed refractometry and ophthalmometry. The diagnosis is keratoconus. In the initial stages, cross-linking is performed. With pronounced changes – kerraring or keratoplasty.

96. Blepharophimosis. Horizontal rocking nystagmus, Microcornea. Microphthalmos. Pathology is not subject to treatment.

97. Superficial vascularization of the cornea. Peripheral spot of the cornea. Given the high visual acuity of this eye, treatment is impractical

98. The patient is treated with corneal staining with a 2% fluorescein solution. The defect of the cornea turns green, which indicates the presence of erosion. Prescribed antibiotics, createproducer, antibiotic ointment.

99. Traumatic keratitis. Assign instillation of antibacterial eye drops 6-8 times a day, with severe processes-every hour. In addition to drops, antibiotics are locally prescribed in the form of ointments, medicinal films, and subconjunctival injections. Sulfanilamide preparations are used (20% solution of sulfacyl sodium). It is recommended to use 2-3 drugs at the same time, alternating them with each other. Instillations of mydriatics are prescribed for the prevention or treatment of iridocyclitis. Instillations of non-steroidal anti-inflammatory drugs are carried out 3-4 times a day. General therapy includes intramuscular administration of antibiotics, and intravenous administration of antibacterial drugs. Diclofenac is administered intramuscularly, antihistamines are administered orally or intramuscularly. In the reparative stage, keratoplastic agents are prescribed.

100. Purulent keratitis, hypopion of the right eye. Mild hypermetropia of the left eye. Assign instillation of antibacterial eye drops 6-8 times a day, with severe processes-every hour. In addition to drops, antibiotics are locally prescribed in the form of ointments, medicinal films, and subconjunctival injections. Sulfonamide preparations (20% solution of sulfacyl-sodium) are used. It is recommended to use 2-3 drugs at the same time, alternating them with each other. Instillations of mydriatics are prescribed for the prevention or treatment of iridocyclitis. Instillations of non-steroidal anti-inflammatory drugs are carried out 3-4 times a day. General therapy includes intramuscular administration of antibiotics, and intravenous administration of antibacterial drugs. Diclofenac is administered intramuscularly, antihistamines are administered orally or intramuscularly. In the reparative stage, keratoplastic agents are prescribed.

101. Soldered corneal cataract, incipient age-related cataract of the right eye. Surgical treatment is possible-keratoplasty with iris plasty. If necessary, cataract extraction.

102. Facet, deep corneal vascularization.

103. Diagnosis – creeping ulcer of the cornea. Immediate hospitalization of the patient. Assign instillation of antibacterial eye drops 6-8 times a day, with severe processes-every hour. In addition to drops, antibiotics are locally prescribed in the form of ointments, medicinal films, and subconjunctival injections. Sulfonamide preparations (20% solution of sulfacyl-sodium) are used. It is recommended to use 2-3 drugs at the same time, alternating them with each other. Instillations of mydriatics are prescribed for the prevention or treatment of iridocyclitis. Instillations of non-steroidal anti-inflammatory drugs are carried out 3-4 times a day. General therapy includes intramuscular administration of antibiotics, and intravenous administration of antibacterial drugs. Diclofenac is administered

intramuscularly, antihistamines are administered orally or intramuscularly. In the reparative stage, keratoplastic agents are prescribed.

104. *Diagnosis – creeping ulcer of the cornea. It is necessary to scrape off the progressive edge of the ulcer and study the flora for sensitivity to antibiotics. Pus in the anterior chamber is the product of a pathologically altered ciliary body. Assign instillation of antibacterial eye drops 6-8 times a day, with severe processes-every hour. In addition to drops, antibiotics are locally prescribed in the form of ointments, medicinal films, and subconjunctival injections. Sulfanilamide preparations are used (20% solution of sulfacyl sodium). It is recommended to use 2-3 drugs at the same time, alternating them with each other. Instillations of mydriatics are prescribed for the prevention or treatment of iridocyclitis. Instillations of non-steroidal anti-inflammatory drugs are carried out 3-4 times a day. General therapy includes intramuscular administration of antibiotics, and intravenous administration of antibacterial drugs. Diclofenac is administered intramuscularly, antihistamines are administered orally or intramuscularly. In the reparative stage, keratoplastic agents are prescribed.*

105. *A patient with a corneal ulcer has a descemetocele. Hospitalization is required. Applying a contact lens as a bandage, Covering the cornea with a conjunctiva or keratoplasty.*

106. *The patient had a perforation of the cornea ulcer with emptying of the anterior chamber of the eye. Surgical treatment is necessary-keratoplasty or covering the perforation with a conjunctiva.*

107. *The child suffers from flictenular keratitis. It is necessary to conduct tuberculin tests, X-ray examination, blood analysis. Phlyctenules treatment of keratitis should be comprehensive, including General and local effects. General treatment is carried out in contact with the phthisiologist. Locally used corticosteroids in drops and subconjunctivally, mydriatics, magnetophoresis with an anti-inflammatory mixture, irradiation with a helium-neon laser.*

108. *Phlyctenular keratitis. It is necessary to conduct tuberculin tests, X-ray examination, blood analysis.*

109. *Marginal keratitis caused by diseases of the eyelids. First of all, intensive treatment of blepharitis. For the treatment of keratitis in the eye, antibacterial drops and ointments, keratoplastic drugs.*

110. *The presumed diagnosis is hematogenic deep tuberculous keratitis. A reliable criterion for tuberculous metastatic keratitis is a focal reaction in the affected eye to subcutaneous administration of tuberculin (Mantoux reaction). Treatment of tuberculous metastatic keratitis is carried out in conjunction with a phthisiologist. Instillations of 3% tubazide solution, 5% saluside solution, subconjunctival injections of 5% saluside solution are performed. Additionally, corticosteroids and mydriatics are used locally.*

111. *The presumed diagnosis is syphilitic parenchymal keratitis. Positive serological reactions, family history allow you to establish the correct diagnosis early. Treatment should be aimed at eliminating the underlying cause, which has a beneficial effect on the outcome of the general disease and the local process. General treatment is carried out in conjunction with a dermato-venereologist. Locally used corticosteroids, mydriatics, magnetic therapy, irradiation with a helium-neon laser. Infiltration of the cornea has a tendency to resorption.*

112. Tree-like herpetic keratitis. Antiviral agents are used for treatment: 5-iodine-2-deoxyuridine (IDU), 3% acyclovir ointment (zovirax, virulex). Prescribe frequent instillation of ophthalmoferon. Solutions are buried in the conjunctival sac every 1-2 hours, ointments are laid in the lower conjunctival vault up to 5 times a day at intervals of 4 hours. It is advisable to combine the use of these drugs with immunotherapy.

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115. Discoid viral keratitis. Prescribe frequent instillation of ophthalmoferon. Used interferonogene – Poludan, pirogenal. In deep forms of keratitis, acyclovir is used in tablets of 200 mg 3-5 times a day for 5-10 days or intravenous administration of 10 ml of a solution containing 250 mg of the drug for one hour every 8 hours for 5 days. It is advisable to combine the use of these drugs with immunotherapy (timalin, T-activin, levomizole, anti-measles immunoglobulin). In herpetic keratitis, corticosteroids should be used with great caution. Used non-steroidal anti-inflammatory drugs (naclof, diclof, intecolor). Drugs are prescribed to stimulate the process of corneal regeneration. Electrophoresis or magnetophoresis with an anti-inflammatory mixture, irradiation with a helium-neon laser are useful. To prevent secondary infection, instillation of a 20% solution of sulfacyl-sodium, laying an ointment with antibiotics behind the eyelids is necessary. The phenomena of iridocyclitis, which are mandatory for deep forms of herpetic keratitis, require instillation of mydriatics.

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117. The patient has mild myopia of the right eye, a vascularized spot of the cornea of the left eye. For treatment, keratoplasty is performed.

118. Tree-like herpetic keratitis. Viral corneal damage occurred as a result of hypothermia. The location of bubbles and infiltrates in the cornea in the form of a twig speaks in favor of

tree-like keratitis. Diagnosis of herpetic keratitis is based not only on the clinic, but also on virological and cytological studies. The most common cytological diagnosis is based on the study of scrapings from the conjunctiva and cornea. The method of immunofluorescence among other cytological methods is the most promising in the diagnosis of herpetic lesions. For superficial forms of herpetic keratitis, antiviral agents are used: 5-iodine-2-deoxyuridine (IDU), 3% acyclovir ointment (zovirax, virulex). Prescribe frequent instillation of ophthalmoferon. Solutions are buried in the conjunctival sac every 1-2 hours, ointments are laid in the lower conjunctival vault up to 5 times a day at intervals of 4 hours. Used interferonogene – Poludan, pirogenal. In deep forms of keratitis, acyclovir is used in tablets of 200 mg 3-5 times a day for 5-10 days or intravenous administration of 10 ml of a solution containing 250 mg of the drug for one hour every 8 hours for 5 days. It is advisable to combine the use of these drugs with immunotherapy (timalin, T-activin, levomizole, anti-measles immunoglobulin).In herpetic keratitis, corticosteroids should be used with great caution. Used non-steroidal anti-inflammatory drugs (naclof, diclof, intecolor). Drugs are prescribed to stimulate the process of corneal regeneration. Electrophoresis or magnetophoresis with an anti-inflammatory mixture, irradiation with a helium-neon laser are useful. To prevent secondary infection, instillation of a 20% solution of sulfacyl-sodium, laying an ointment with antibiotics behind the eyelids is necessary.

119. Fungal keratitis. Local therapy: instillation of 4% solution of nizoral, 1% solution of methylene blue, 3% solution of potassium iodide, 5% solution of ascorbic acid, 2% solution of boric acid, colbiocin up to 6-8 times a day, with severe degrees of purulent process – every hour, simultaneously applying 2-3 drugs, alternating them; scarification of the pathological area of the cornea, instillation of 5% solution of ascorbic acid or 2% solution of boric acid, then quenching the cornea with 1% solution methylene blue; laying in the lower arch at night 0.4% amphotericin-B ointment; instillation of mydriatics or, if necessary, myotics, nonsteroidal anti-inflammatory drugs. General therapy. Inside 200 mg of ketocanazole, flukonazole (diflucan), nizoral 1 time a day for 5-7 days; diclofenac 3.0 ml intramuscularly up to 5 injections; intravenous injections of 5% ascorbic acid solution of 5 ml. Administration of antihistamines orally or intramuscularly. If there is no effect from the treatment, a therapeutic corneal transplant is performed. Drugs are prescribed to stimulate the process of corneal regeneration. Electrophoresis or magnetophoresis with an anti-inflammatory mixture, irradiation with a helium-neon laser are useful. To prevent secondary infection, instillation of a 20% solution of sulfacyl-sodium, laying an ointment with antibiotics behind the eyelids is necessary.

120. Neuroparalytic keratitis. Prescribe keratoplastic drugs, pain – analgesics, novocaine blockade. To prevent infection, a 30% solution of sulfacyl-sodium, 1% tetracycline ointment is used. Often have to resort to bio-coating of the cornea with simultaneous crosslinking eyelids.

121. Rosacea-keratitis. Treatment is carried out in conjunction with a dermatologist. Topically prescribed antibacterial, keratoplastic and non-steroidal anti-inflammatory drugs. With a significant destructive process in the cornea, its amniotic membrane is bio-coated with a donor cornea or a soft contact lens. If there is a threat of corneal perforation, layer-by-layer keratoplasty is performed.

122. Corrosive ulcer of the cornea of the Moray eel. It is recommended to perform layer-by-layer keratoplasty for therapeutic purposes.

123. Central spot of the cornea of the left eye. Keratoplasty is shown.

124. Fluorescein solution.

8. DISEASES OF THE SCLERA

125. A patient suffering from an open form of pulmonary tuberculosis and being treated in an antitubercular dispensary two days ago, a limited swelling appeared on the left eye between the limb and the equator, accompanied by pain and hyperemia of the conjunctiva. Lacrimation and photophobia are weakly expressed. The inflammatory focus has a bright red color with a purple tinge, is relatively localized, but without clear boundaries, slightly rises above the surface of the unchanged sclera. The conjunctiva above it is mobile. Palpation of this area is painful. The possible diagnosis? Local and general treatment?

126. A 40-year-old patient complains of redness of the right eye. About a week without effect is treated for conjunctivitis. Currently objectively. Visual acuity of both eyes = 1.0. Slight swelling of the eyelids of the right eye. In side lighting, redness and thickening of the conjunctiva, mixed injection of the eyeball is determined. Redness is local in nature. The focus of inflammation of the size of 1, 5x2, 0 cm is bright red, with a purple tint, as if raised above the surface of the sclera. His palpation is painful. The other parts of the eye are not changed. Diagnosis? A survey? Treatment?

127. A six-year-old girl complains of pain in her left eye, lacrimation, photophobia, blepharospasm. When examining this eye, a limited area of conjunctival hyperemia is noted. It rises above the rest of the surface of the eyeball. When the conjunctiva is shifted, it becomes clear that under the hyperemic mucosa, the sclera has a diffuse bluish-red hue. If you touch the tip of a glass stick through the eyelid to the eyeball, it turns out that the area of swelling is sharply painful. The girl's visual acuity remains normal. What diagnosis would you make? Schedule an examination and treatment.

128. A 53-year-old patient turned to an optometrist with complaints of severe pain in the right eye, redness of the eye, decreased vision. The complaints appeared two days ago. The disease is not associated with anything. Visual acuity of the right eye = 0.1 (not corr.), visual acuity of the left eye = 1.0. The left eye is healthy. On the right, edema and hyperemia of the eyelids are determined. Swelling of the conjunctiva. Mixed injection of the eyeball. On the sclera on the inner side, retreating from the limb of 5 mm, there is a limited swelling of dark red color with a yellowish tinge, sharp soreness when finishing it through the eyelid. The cornea is swollen, its transparency is reduced, and there are multiple precipitates on the posterior surface. At the bottom of the anterior chamber is a strip of pus. The pupil is narrow. In the passing light, the red reflex. It is not possible to see the fundus in detail. Diagnosis? Therapeutic measures?

129. A 36-year-old patient complained of reduced vision in the left eye and the appearance of protrusion in the eye. Repeatedly treated for scleritis of this eye. Suffers from rheumatism, heart disease. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.3 (not corresponding). The eye is almost calm. In the area of the limb from above, bumpy protrusions of black-asp color due to the translucence of the pigment of the vascular tract. The cornea and the underlying parts are without visible changes. What pathology is observed in the patient? What can be associated with reduced vision? Additional research? Therapeutic tactics?

130. A 45-year-old patient, a few days ago, had redness of the right eye, accompanied by soreness when touching the eye through the eyelid, this is accompanied by blurred vision. The left eye is also somewhat hyperemic, however, there is no soreness. For several days from the beginning of the disease, albucid was instilled into the eyes, but there was no visible effect from this. In an objective study, the visual acuity of the right eye = 0.5 (not corr.), the visual acuity of the left eye = 1.0. On the right side of the sclera in the outer half, two spilled red-purple foci are defined, rising above the level of the sclera. There are single precipitates on the posterior surface of the cornea. The iris is changed in color, the pupil is somewhat narrowed, reacts sluggishly to light. In the passing light, the red reflex. The fundus of the eye without a visible pathology. On the left, in the outer half of the sclera, the focus of inflammation is 0.5x1.0 cm in size, red, with a slight purple tint, raised above the surface of the sclera. Palpation is painless. The other parts of the eye are not changed. Diagnosis? Examination? Treatment?

131. A 55-year-old patient was admitted to the hospital for redness of the left eye, minor pain in this eye. This redness was already observed two months ago, but passed after the treatment. From the anamnesis, it was found out that the patient has been suffering from deforming polyarthritis for several years against the background of rheumatism. Treatment of rheumatism is carried out irregularly. Objectively: the right eye. Visual acuity of 1.0. There is no visible pathology. Left visual acuity = 0.6 (not corr.). Mixed eyeball injection. The cornea is transparent, somewhat edematous. At 12 o'clock under the eyelid on the sclera there is a yellowish-gray necrotic focus with initial decay phenomena. Subject parts of the eye without visible pathology. Diagnosis? Principles of treatment?

132. A 4-year-old child was brought to the oculist for examination. Parents are concerned about the change in the color of the white membrane of both eyes, more pronounced on the right. The child has deafness, diseases of the articular apparatus, frequent fractures and dislocations in the joints. Congenital heart disease. Objectively. Visual acuity of both eyes = 1.0. The sclera of both eyes are blue. Embryotoxon. Subject parts of the eye without visible pathology. Diagnosis? Possible therapeutic measures?

133. A 7-year-old child was brought to an ophthalmologist for examination. Parents noticed the dark spots that appeared on the eye. Objectively. Visual acuity of both eyes = 1.0. On the sclera of both eyes are dark spots of varying intensity and size. His eyes are completely calm. Other pathological changes of the eye have not been identified. Diagnosis? Doctor's tactics?

134. The ophthalmologist was contacted by the parents of a 3-year-old child with complaints about the presence of education in the right eye. It was noted almost from birth, but recently it has been increasing. Objectively. The eye is calm. At the limb at 8 o'clock, a formation the size of a small pea, having a wide base, is motionlessly fixed, filled with transparent watery contents. Approximately equally extends to the cornea and sclera. Diagnosis? Treatment?

Answers to situational problems.

125. Episcleritis of the left eye. Prescribe antibiotics, salicylates, corticosteroids, antihistamines. Continue anti-TB treatment.

126. Diagnosis – scleritis of the right eye. Inflammatory diseases of the sclera often occur against the background of systemic diseases, allergic manifestations, viral lesions, such

chronic infections as tuberculosis and syphilis. Treatment depends on the etiology of the process. It is necessary to take into account the role of immune factors. It is recommended to prescribe antibiotics, salicylates, corticosteroids, antihistamines, thermal procedures, magnetotherapy, magnetophoresis with an anti-inflammatory mixture, irradiation with a helium-neon laser.

127. Scleritis. It is necessary to examine the somatic status of the child for the presence of diseases. Inflammatory diseases of the sclera often occur against the background of systemic diseases, allergic manifestations, viral lesions, such chronic infections as tuberculosis and syphilis. Treatment depends on the etiology of the process. It is necessary to take into account the role of immune factors. It is recommended to prescribe antibiotics, salicylates, corticosteroids, antihistamines, thermal procedures, magnetotherapy, magnetophoresis with an anti-inflammatory mixture, irradiation with a helium-neon laser.

128. Scleral abscess, purulent iridocyclitis of the right eye. Prescribe antibiotics, salicylates, corticosteroids, antihistamines, mydriatics. According to the indications, an autopsy of the sclera abscess is performed.

129. Staphyloma of the sclera. With extensive staphylomas, surgical treatment is performed – anti-glaucoma surgery, scleroplasty with the use of various donor materials.

130. Scleritis, iridocyclitis of the right eye. Episcleritis of the left eye. Inflammatory diseases of the sclera often occur against the background of systemic diseases, allergic manifestations, viral lesions, such chronic infections as tuberculosis and syphilis. Treatment depends on the etiology of the process. It is necessary to take into account the role of immune factors. It is recommended to prescribe antibiotics, salicylates, corticosteroids, antihistamines, thermal procedures, magnetotherapy, magnetophoresis with an anti-inflammatory mixture, irradiation with a helium-neon laser. Given the presence of iridocyclitis of the right eye, it is necessary to prescribe mydriatics.

131. Scleromalacia on the background of rheumatism. Therapy of the underlying disease is necessary. Local anti-inflammatory therapy. Treatment is almost unsuccessful. With the emergence of fistula or the collapse of the sclera shows a scleroplasty.

132. Blue sclera syndrome. This congenital family-inherited disease is associated with an anomaly in the development of the mesenchyme.

133. Melanosis of the sclera. Patients with this congenital anomaly should be systematically monitored by an ophthalmologist due to the possibility of malignancy of the process.

134. Congenital cyst of the sclera of the right eye. Treatment of the cyst is surgical.

9. DISEASES OF THE CHOROID

135. After suffering from hypothermia, a 43-year-old patient developed pain in her right eye at night. His eye was red, and his vision was slightly impaired. Objectively. Visual acuity of the right eye = 0.4 (not corr.). Slight edema and hyperemia of the upper eyelid. The eyeball is injected according to the pericorneal type. The cornea is transparent. Front camera is of medium depth with a transparent moisture. The pattern of the iris is blurred. The pupil of the right eye is narrower than the left. In the passing light, the red reflex. The fundus was

normal. Visual acuity of the left eye = 1.0. The eye is healthy. Diagnosis? Therapeutic measures?

136. A 52-year-old patient is treated for conjunctivitis for a long time. Currently, she is concerned about pain in her right eye, its redness and a decrease in the vision of this eye. Objectively. Visual acuity of the right eye = 0.2 (not corr.). Moderate edema and hyperemia of the upper eyelid. The eyeball is sharply injected in a mixed type. The cornea is transparent, on its posterior surface small dots of gray color, located in the form of a triangle with the vertex to the center. The iris is changed in color, its pattern is smoothed. The pupil is moderately dilated, irregular in shape. In the passing light, the red reflex is not quite clear. The fundus was normal. The eyeball is sharply painful on palpation. Left eye. Visual acuity = 0.7 (not corr.). The eye is calm. Anterior segment without visible pathology. In the transmitted light, even stripes are visible against the red glow from the periphery to the center of the pupil. The fundus was normal. Diagnosis? Additional research? Treatment?

137. On reception to the oculist asked the patient 42 years. Complaints of redness of the left eye, severe pain, increasing at night. In the anamnesis, it was found out that the father had glaucoma. Objective: visual acuity of the left gas is 0.7, not corrected, pericorneal injection of the eye vessels. There are small precipitates on the cornea, the anterior chamber is of medium depth, the moisture is cloudy, the pupil is narrowed. IOP by palpation was normal. Palpation of the eye is painful. Make a diagnosis? With what disease is it necessary to conduct a differential diagnosis?

138. Complaints of a 38-year-old patient with severe pain in the left eye and the left half of the head. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.07 (not corr.). The eyelids are edematous. The eyeball is sharply injected in a mixed type. Sharply twisted and expanded branches of the anterior ciliary arteries (a symptom of "cobra"). The cornea is edematous, translucent. The anterior chamber is small, uneven, as if drawn into the pupil area. The iris pattern is blurred. The pupil is round, narrow, drawn up to the lens. In the passing light, a dull red reflex. The fundus cannot be seen. Left intraocular pressure = 38 mm Hg. Diagnosis? Therapeutic measures?

139. The parents of a 6-year-old child noticed redness in his right eye. We turned to a children's optometrist. On examination: visual acuity of the right eye - counting fingers by 30 cm; left eye – 1.0. The right eye is slightly hyperemic. There is a gray band of opacity on the cornea within the eye slit. On the endothelium of the cornea, precipitates are noted. The pattern of the iris is blurred, the color is changed. The pupil is irregular in shape. The lens is cloudy. The fundus is not visible. In the study of blood, leukocytosis is noted, ESR 20 mm/h. CRP +. Diagnosis? Make a treatment plan.

140. A 45-year-old patient was taken to the emergency department of the hospital by ambulance with complaints of severe pain in the left side of the head. An optometrist was called for a consultation to examine the fundus of the eye. On examination: visual acuity of the left eye is 0.05, not corrected. The cornea is edematous, and precipitates are detected on the endothelium. The pupil is slightly narrowed IOP 50 mm Hg. The angle of the anterior chamber is open. The lens and vitreous body are transparent. The fundus of the eye without pathology. The right eye is normal. Diagnosis? Treatment tactics?

141. A 16-year-old girl was referred to an ophthalmologist for consultation. Complaints: floating "flies" and light fog in front of the left eye. Objectively: right eye-no changes. The left eye is calm, the cornea is transparent. Pupil in the center, irregular shape. The color of

the iris is slightly different from the right eye. In the vitreous body-pronounced destruction. The fundus was normal. Concomitant diseases: frequent angina. Diagnosis? Treatment tactics?

142. A 42-year-old woman complained of slight redness, visual impairment, and photophobia of the right eye in the emergency department of the eye hospital. These phenomena appeared 3-4 days ago, their manifestations are increasing. Objectively. Visual acuity of the right eye = 0.5 (not corr.). Mild blepharospasm, mild pericorneal injection. There are small precipitates on the posterior surface of the cornea. If gonioscopy determines the unit of Geisenheim. In the field of the basis of the vitreous body with cycloscope detected local cluster of yellow exudate. The left eye is healthy. Diagnosis? Treatment?

143. When collecting certificates for admission to kindergarten, a 4-year-old child was found to have low vision in both eyes. The mother has 3 pregnancies (the previous two ended in spontaneous miscarriages). The mother has poor vision in her right eye due to the presence of a chorioretinal focus on the fundus. Objectively, when examining the child's eyes, atrophic foci with the inclusion of pigment were found on the fundus in the macular zone. What tests should be performed to determine the cause of these foci? Is surgical treatment indicated for the child?

144. A 45-year-old patient with complaints of reduced vision in the left eye applied to the eye office of the polyclinic. The disease started about a month ago. The beginning of it does not connect with anything. At first, the patient had the impression that all the objects that he looks at with this eye are smaller than their image in the right eye. Soon, the curvature of objects was added to this, and then vision began to decrease. Currently objectively. Right eye. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.08 (not corresponding). The eye is calm. The optical medium is transparent. Fundus of the eye. The optic disc is pale pink, with clear borders. In the area of the macula, an inflammatory focus of a rounded shape, with indistinct borders, yellowish-gray color is determined. The size of the focus is about one diameter of the optic disc. What are the phenomena of image reduction and distortion called? Diagnosis? Treatment?

Answers to situational problems.

135. A patient with iritis of the right eye. Prescribe means that dilate the pupil, anti-inflammatory and anti-allergic agents-corticosteroids (instillation of 0.1% dexamethasone solution at least 6 times a day, parabulbar or subconjunctival injections of 0.4% dexamethasone solution). Nonsteroidal anti-inflammatory drugs, parabulbar and intramuscular injections of broad-spectrum antibiotics, antihistamines are used. To reduce inflammatory phenomena, thermal procedures are prescribed.

136. A patient with iridocyclitis of the right eye, incipient age-related cataract of the left eye. The pupil of the right eye is dilated, possibly medically, since the patient is being treated for conjunctivitis for a long time. Given the possibility of increasing intraocular pressure in the case of glaucomocyclic crisis, the pressure of the right eye is measured. Prescribe means that dilate the pupil, anti-inflammatory and anti-allergic agents-corticosteroids (instillation of 0.1% dexamethasone solution at least 6 times a day, parabulbar or subconjunctival injections of 0.4% dexamethasone solution). Nonsteroidal anti-inflammatory drugs, parabulbar and intramuscular injections of broad-spectrum antibiotics, antihistamines are used. To reduce inflammatory phenomena, thermal procedures are prescribed.

137. The patient has iridocyclitis. It is necessary to make a differential diagnosis with an acute attack of angle-closure glaucoma.

138. The patient has iridocyclitis, pupil fusion, bombed iris, secondary glaucoma of the left eye. It is necessary to prescribe instillations of 1% atropine solution and 0.1% epinephrine solution against the background of diuretics. In the absence of dilation of the pupil and preservation of the bombage of the iris, an iridectomy is performed. Prescribe anti-inflammatory and anti-allergic agents-corticosteroids (instillation of 0.1% dexamethasone solution at least 6 times a day, parabulbar or subconjunctival injections of 0.4% dexamethasone solution). Nonsteroidal anti-inflammatory drugs, parabulbar and intramuscular injections of broad-spectrum antibiotics, antihistamines are used. To reduce inflammatory phenomena, thermal procedures are prescribed.

139. Still's disease. Eye treatment is carried out against the background of general therapy of the disease. Instillations of mydriatics, forced instillation of dimexide, vitamins B, C, PP, E with glucose, dibazole, amidopyrine, novocaine, etc. are shown. In the remission stage, instillations of dionine, lidase, protease, and papain (lekozim) are performed to improve trophic and resorption of opacities in the cornea, lens, and vitreous body. Prescribe corticosteroids, oxygen, etc. In the torpid process, drugs are administered parabulbarno-under the conjunctiva, in the episcleral (tenon) space, as well as suprachoroidally (dexazone). Surgical treatment is indicated: partial non-through keratectomy, cataract extraction. The outcomes of operations are not always favorable. Anti-relapse treatment in hospital conditions, which is carried out annually, is indicated.

140. Uveitis of the left eye. Prescribe means that dilate the pupil. Anti-inflammatory and anti-allergic agents-corticosteroids. Nonsteroidal anti-inflammatory drugs, broad-spectrum antibiotics, and antihistamines are used. In addition, distracting therapy is indicated. To reduce inflammatory phenomena, thermal procedures are prescribed. On the extent of subsiding of inflammatory phenomena in uveitis, resorption therapy is enhanced.

141. Uveitis of the left eye. Prescribe means that dilate the pupil. Anti-inflammatory and anti-allergic agents-corticosteroids. Nonsteroidal anti-inflammatory drugs, broad-spectrum antibiotics, and antihistamines are used. In addition, distracting therapy is indicated. To reduce inflammatory phenomena, thermal procedures are prescribed. On the extent of subsiding of inflammatory phenomena in uveitis, resorption therapy is enhanced.

142. Peripheral uveitis. Prescribe means that dilate the pupil, corticosteroids in the form of instillations, parabulbar or subconjunctival injections, and in severe processes – corticosteroids inside and intravenously. Nonsteroidal anti-inflammatory drugs, parabulbar and intramuscular injections of broad-spectrum antibiotics, antihistamines are used. All these local measures should be carried out against the background of general therapy, taking into account the etiology of the process.

143. Uveitis of toxoplasmosis etiology. A number of immunological laboratory and laboratory-clinical methods are used for diagnosis. The most commonly used and widespread reactions at present are complement binding reactions (RSCs) with toxoplasmosis antigen, fluorescing antibody reaction (RFA), passive hemagglutination reaction (RPGA), microprecipitation reaction in agar, blast transformation reaction (RBT) of peripheral blood lymphocytes under the action of toxoplasmin, detection of specific IgM and IgG antibodies. Surgical treatment is not indicated.

144. Micropsia. Metamorphopsia. Prescribe means that dilate the pupil. Nonsteroidal anti-inflammatory drugs, parabulbar and intramuscular injections of broad-spectrum antibiotics, antihistamines are used. Corticosteroids. Diuretics. All these local measures should be carried out against the background of general therapy, taking into account the etiology of the process. Of particular importance is general therapy in the treatment of peripheral and posterior uveitis.

10. DISEASES OF THE RETINA

145. A 41-year-old patient complained of a sharp decrease in the vision of the right eye, distortion of the shape and size of objects. These complaints appeared 2 days ago, I did not go to the doctor. Objectively. Visual acuity = 0.08 (not corr.). TOD =23 mm Hg. Right eye is calm. The cornea is transparent and spherical. The front camera is of medium depth, the moisture is transparent. The iris in color and pattern is not changed. The pupil is well-shaped and responds well to light. The lens is transparent. Fundus: the optic disc is pale pink, the borders are clear, the excavation is physiological, the arteries are slightly dilated. In the macular zone, a rounded focus of yellowish-gray color, 0.5 mm in size, with indistinct borders and a reddish rim around is visible. The retina around the lesion is slightly swollen. Visual acuity of the left eye = 1.0. TOS = 21 mm Hg. The eye is healthy. Diagnosis? Treatment?

146. A 30-year-old patient went to the polyclinic to see an optometrist. Complaints of flashes and flickering in front of the right eye. The development of this disease: A month ago, the patient was in the hospital for viral pneumonia. After discharge, I noticed that my right eye sees worse, and when reading newspapers, the letters became distorted. There were flashes in front of that eye. Objective: visual acuity of the right eye 0.5, does not correct; visual acuity of the left eye 1.0. The right eye is calm, the cornea is not changed. The lens is transparent. On the fundus in the macular zone, a focus with indistinct borders, up to ½ the diameter of the disc, yellowish-gray in color is determined. Diagnosis? The possible complications?

147. A 32-year-old patient complains of impaired vision in the right eye, flashes in front of the eye, and curvature of the objects under consideration. The deterioration of vision occurred about two weeks ago. The disease is not associated with anything, is not accompanied by pain. Objectively. Visual acuity of the right eye = 0.2 (not corresponding). The adnexal apparatus of the eye is not changed. The eye is calm. Anterior segment of the eye without visible pathology. The optical medium is transparent. On the fundus paramacularly there is a yellowish-gray focus of a rounded shape, measuring up to one diameter of the optic disc. The boundaries of the hearth are indistinct. The retina in the central parts is edematous. Macular and foveal light reflexes are absent. Left eye. Visual acuity = 1.0. The eye is healthy. Diagnosis? Additional research? Treatment?

148. A 46-year-old man went to the clinic with complaints of sudden loss of vision in his left eye. In the morning, my vision was normal. While washing, I noticed that my left eye suddenly began to see poorly. The decrease in vision was not accompanied by pain. For 5-10 minutes, the eye is completely blinded. The patient suffers from hypertension. Objectively. Visual acuity of the right eye = 1.0. The eye is calm. Anterior segment of the eye without visible changes. The optical medium is transparent. There is a picture of hypertensive angiosclerosis on the fundus. Visual acuity of the left eye = 0. The left eyeball is not injected. Anterior segment of the eye without visible changes. The optical medium is transparent. On the fundus, a cloudy pale retina is determined. Against its background,

a bright red central fossa stands out in the area of the yellow spot. The arteries are sharply narrowed. There are intermittent columns of blood in the small arteries. The veins are practically unchanged. The disc of the optic nerve is pale, with a gray tinge. Diagnosis? First aid? Therapeutic measures?

149. A 60-year-old man complains of a sudden loss of vision in his right eye, which he discovered in the morning immediately after waking up. Suffers from hypertension, atherosclerosis. When examined by an oculist, there was a decrease in vision in the right eye to 0.01, there is no correction, in the left eye the vision is equal to 1.0. The intraocular pressure of both eyes is 22 mm Hg. The anterior segment of the right eye is normal. On the fundus, the optic nerve disc is pink, the borders are clear, the arteries are sharply narrowed, the macular zone is pale, a round red spot is marked in the center. On the fundus of the left eye, there is a narrowing of the arteries, an unevenness of their caliber. In the macular zone, corkscrew-like tortuosity of the vessels, a symptom of Salus II. The veins are almost unchanged. Diagnosis? What should be the first medical care for such patients?

150. After a hypertensive crisis, a 77-year-old patient had decreased vision in her right eye. The decrease in vision occurred quickly, painlessly. Objectively. Visual acuity of the right eye = 0.04 (not corr.). The adnexal apparatus of the eye is normal. The eyeball is not injected. Anterior segment of the eye without visible pathology. Against the background of the red reflex, black needle-like stripes are visible from the fundus, directed with the tip to the center of the pupil. On the fundus, edematous, red is visible, its contours are blurred, poorly visible due to numerous hemorrhages that resemble flames. The veins are dark, dilated, convoluted, sometimes lost in the edematous tissue of the retina. The arteries are narrow. Numerous streaked and large hemorrhages all over the fundus of the eye. Left eye. Visual acuity = 0.6 with spherical glass –3.0 D. = 0.8. The adnexal apparatus of the eye is normal. The eyeball is not injected. The front segment has no visible changes. In the passing light, black strokes are visible against the red reflex, similar to those on the right. There is a picture of hypertonic retinal angiosclerosis on the fundus. Diagnosis? Therapeutic measures?

151. Female, 50 years old. A week ago, I noticed a fog in front of my left eye. My eye doesn't hurt. She did not go to the doctors, she feels healthy. Objectively: the vision of the right eye is 1.0; the left eye is 0.08. Intraocular pressure on the right = 21 mm Hg, on the left – 27 mm Hg. When viewed, the left eye is calm, the cornea is not changed, the lens is transparent. On the fundus: the borders of the disc are slightly blurred, the arteries are narrowed, the veins are dilated, twisted. In the course of the inferior temporal vein, there are multiple hemorrhages of various shapes and sizes. Diagnosis? Treatment?

152. In a 27-year-old patient, against the background of changes in the fundus vessels of both eyes (periflebitis), there is tortuosity and dilation of the veins, unevenness of their caliber. In some places the veins are interrupted by small or larger retinal hemorrhages and plasmorrhea. Vascular microaneurysms. There are recurrent hemorrhages in the vitreous body. What kind of disease can you think about in the presence of such clinical manifestations? Principles of treatment? Forecast?

153. An ophthalmologist was contacted by a 21-year-old patient with complaints of reduced vision in both eyes. The decrease in vision has been noted since childhood, but he did not go to the doctor, believing that he was progressing myopia, for which he did not want to wear glasses. Especially noticeable is the deterioration of vision at dusk. Objectively. Visual acuity of both eyes = 0.1 not corresponding. The fields of view are concentrically narrowed to 20-30°.On the fundus along the retinal vessels, starting from the periphery,

pigment deposits of dark brown color, resembling bone bodies of various sizes and shapes. Diagnose the patient's disease. Give recommendations for treatment.

154. A young girl complains of poor vision at dusk. On examination, the visual acuity of both eyes is 0.6 with a correction of sph. –1.0 D = 1.0. The anterior segment of both eyes is not changed. The lenses are transparent. Fundus: the optic nerve discs are pale, with clear borders. The arteries are narrow, the veins are normal. On the periphery of the retina, there is a mass of pigment deposits of the "bone bodies" type. The macula is not changed. The visual fields in both eyes are concentrically narrowed to 40°. IOP = 18-20 mm Hg Diagnosis? Treatment?

155. A 65-year-old patient complains of curvature of objects in front of the right eye during the last month. Suffers from hypertension. The visual acuity of the right eye of 0.3 is not corrected. The anterior segment is not changed, the optic disc is normal, the arteries are narrowed, the veins are moderately dilated. In the macular area there are yellowish-whitish foci, there is no reflex. Relative central scotoma in the field of view. Left eye: vision =1.0, arteries evenly narrowed, veins moderately full. There is no reflex from the macula. Diagnosis? What research needs to be done? Treatment?

156. When referring to an optometrist, a 68-year-old patient complains of a decrease in vision in both eyes, more pronounced on the left. Reduced vision is not associated with anything. Objectively. Visual acuity of the right eye = 0.4 (not corr.). Visual acuity of the left eye = 0.2 (not corr.). Eyes are calm. Anterior segments of the eyes without visible changes. In the transmitted light, against the background of the red reflex from the fundus along the periphery of the pupil, black spoke-like opacities are visible, directed with the apex to the center of the pupil. On the fundus, the optic disc is pale pink, with clear borders. In the macular area, small-focal dyspigmentation, yellowish-pink foci on its background, around which uneven cellular pigmentation is visible. What additional studies can help you with your diagnosis? The intended diagnosis? Treatment?

157. A 27-year-old patient suffering from myopia, after lifting the weight, had a sharp decrease in the vision of the left eye. The patient complains about the presence of a dark "curtain" on top. Objectively. Visual acuity of the right eye = 0.04 with a sphere – 7.5 D = 1.0. The eye is calm. Anterior segment without visible pathology. The optical medium is transparent. A circular myopic cone is visible on the fundus around the optic disc. Peripheral vitreochorioretinal distrophy. Visual acuity of the left eye = 0.01 (not corr.). The eye is completely calm. Anterior segment without visible pathology. The optical medium is transparent. In the passing light, against the background of the red reflex in the lower parts of the eye, a veil-like film of gray color is visible, which sways when the eyeball moves. A funduscopic examination. From below, you can see a bubble-like translucent formation, on which the vessels climb. Additional research? Diagnosis? Principles of treatment?

158. A 40-year-old patient complained about the appearance of a curtain in front of her right eye. The curtain appeared a week ago on the background of full health. Objectively: the vision of the right eye 0,6 is not corrected. On the fundus of this eye, a retinal bubble is defined, occupying the entire lower half of the eyeball. Dark spots are visible on the bubble. The disc and macular area are not changed. The vitreous body is transparent. IOP – 27 mm Hg. Diagnosis? Treatment?

159. The ophthalmologist was contacted by the parents of a 10-year-old child with complaints that their son clearly sees worse with his right eye. At objective inspection it is revealed.

Visual acuity of the right eye = 0.02 (not corr.). The right eye is calm. The front segment has no visible changes. The optical medium is transparent. On the fundus, the optic disc is pale pink, with clear borders. In the macular area, a cystic focus is yellow, regular rounded shape, with clear borders, the size of about one diameter of the optic disc. This hearth resembles the yolk of a raw egg in appearance. Visual acuity of the left eye = 1.0. The eye is healthy. Diagnosis?

160. A 70-year-old patient turned to an optometrist with complaints of decreased vision in both eyes, which occurred several months ago and progressed gradually and painlessly. Reduced vision is not associated with anything. Objectively. Visual acuity of the right eye = 0.1 (not corr.), the left – 0.08 (not corr.). The eyes are calm. Anterior segments without visible pathology. During biomicroscopy, there are gentle opacities under the posterior capsule of the lens. In the vitreous body, filamentous destructive changes. On the fundus, the optic nerve discs are pale pink, with clear borders. In the macular areas of both sides is determined by the retinal edema. The retina is thickened with a grayish hue. Exudate deposits lubricate the course of small paramacular vessels, dashed and pinpoint hemorrhages. What additional research is needed? Diagnosis? Recommended treatment?

161. When examining a 16-year-old patient, a mottled oval edema with a brownish color is detected in the macular area on the fundus of the left eye, which has a visual acuity of 0.5 (not corr.). There is a reflection of the retina outside the zone of dystrophic lesion. Determine a possible diagnosis. With what diseases is it necessary to differentiate this pathology? Principles of treatment.

162. A 4-year-old child was brought to see an optometrist. Parents noticed that the child does not see well with his right eye. Visual acuity of this eye = 0.05 (not corresponding). Anterior segment without visible pathology. The optical medium is transparent. Fundus: on the periphery of the retina, cherry-colored formations such as vascular glomeruli or nodes are visible. The glomeruli are immured in branching anastomoses between the arterioles and the retinal venules. Hemorrhages and foci of exudate of white color. What kind of disease in a child can you think about? What additional research is needed? Principles of treatment. Forecast.

163. During a professional examination in a 26-year-old patient, it was revealed: Visual acuity of both eyes = 1.0. The eyes are calm. Anterior segments without visible pathology. The optical medium is transparent. On the fundus, on both sides near the optic disc, there are white shiny strips of tissue growth in the form of flames. Make a diagnosis. What treatment should be carried out?

164. A 19-year-old student noticed the appearance of a curtain on the outside of her left eye a week ago. Suffers from nearsightedness in 5.0 D. From the anamnesis, it was possible to find out that a month ago I helped my parents to clean potatoes. Objective: Visual acuity of the right eye = 0.2 sph. – 5.0 D=1.0; Visual acuity of the left eye = 0.08 is not corrected. Right eye: the front segment is not changed. The lenses are transparent. The optic disc is pink, the borders are clear, the myopic cone. There are no changes in the macular area. Left eye: the front segment is not changed. The lens is transparent, there are floating opacities in the vitreous body. The optic disc is pink, the borders are clear. Myopic cone. At 17 o'clock, the retinal bubble is visible, turning into a fold. IOP of both eyes 20 mm Hg Diagnosis? What additional examinations should be performed? Treatment?

165. A 74-year-old patient complains of deterioration of vision in the left eye, curvature of objects when viewing them with this eye. Objectively. Visual acuity of the right eye = 0.6

with a sphere + 1.5 D = 0.9. The eye is calm. The front segment has no visible changes. In the passing light on the background of the red reflex, single black stripes in the form of "spikes". The fundus is within the age norm. Visual acuity of the right eye = 0.1 (not corresponding). The eye is calm. The front segment has no visible changes. In the passing light on the background of the red reflex, single black stripes in the form of "spikes". Fundus: the optic disc is pale pink, with clear borders. The stroke and gauge of the vessels are not changed. In the macular area, retinal edema is detected with a small speckling on the periphery. More research? The possible diagnosis? Therapeutic measures?

Answers to situational problems.

145. Central chorioretinitis of the right eye. Treatment of central serous chorioretinitis should be comprehensive with mandatory consideration of the etiology of the process. The pathogenetic treatment is the blockade of basal plate defects by laser coagulation. In all cases, you should use angioprotektory, antioxidants, inhibitors of prostaglandins, corticosteroids in the form of retrobulbar injections.

146. Central chorioretinitis of the right eye. Dystrophic changes with reduced vision.

147. Central chorioretinitis of the right eye. Treatment of central serous chorioretinitis should be comprehensive with mandatory consideration of the etiology of the process. The pathogenetic treatment is the blockade of basal plate defects by laser coagulation. In all cases, you should use angioprotektory, antioxidants, inhibitors of prostaglandins, corticosteroids in the form of retrobulbar injections.

148. Acute obstruction of the central artery of the retina of the left eye. Prescribe a tablet of 0.5 mg or 2-3 drops of 1% nitroglycerin solution on sugar and inhalation of amyl nitrite or carbogen; 0.5 ml of 0.1% atropine solution, 0.3-0.5 ml of 15% xanthinol nicotinate solution retrobulbarno; nicotinic acid 0.1 g orally and in injections, 10 ml of 2.4% eufillin solution in the form of intravenous infusions; intravenous or intramuscular administration of 5-10 thousand UNITS of heparin, trombolitiki, of fibrinolysin which can also be used subconjunctival and retrobulbar. Intraocular pressure is reduced by instillation of beta-blockers, the appointment of glycerol, diacarb. For the same purpose, massage the eyeball, paracentesis of the cornea.

149. Acute obstruction of the central artery of the retina of the left eye. Prescribe a tablet of 0.5 mg or 2-3 drops of 1% nitroglycerin solution on sugar and inhalation of amyl nitrite or carbogen; 0.5 ml of 0.1% atropine solution, 0.3-0.5 ml of 15% xanthinol nicotinate solution retrobulbarno; nicotinic acid 0.1 g orally and in injections, 10 ml of 2.4% eufillin solution in the form of intravenous infusions; intravenous or intramuscular administration of 5-10 thousand UNITS of heparin, trombolitiki, of fibrinolysin which can also be used subconjunctival and retrobulbar. Intraocular pressure is reduced by instillation of beta-blockers, the appointment of glycerol, diacarb. For the same purpose, massage the eyeball, paracentesis of the cornea.

150. Thrombosis of the central vein of the retina of the right eye. Mild myopia, hypertonic angiosclerosis of the retina of the left eye. Incipient age-related cataract in both eyes. In the treatment of central retinal vein thrombosis, anticoagulants, enzymes, angioprotectors, antispasmodics, corticosteroids, drugs that improve microcirculation are used.

151. Thrombosis of the lower temporal branch of the central retinal vein of the left eye. In the treatment of central retinal vein thrombosis, anticoagulants, enzymes, angioprotectors, antispasmodics, corticosteroids, drugs that improve microcirculation are used.

152. Periflebit The Eels'. To establish the etiology of this disease, comprehensive studies should be conducted. In all circumstances, regardless of the etiology of the process, it is necessary to prescribe symptomatic treatment in the form of vitamin therapy, tissue preparations, corticosteroids, ultrasound treatment; diathermocoagulation and cryopexy are also recommended. The method of laser coagulation of the affected vessels to prevent bleeding, as well as irradiation of hemorrhage zones in order to resolve them, has become widespread.

153. Pigmentary degeneration of the retina. It is recommended to wear glasses with light filters to avoid the damaging effect of light. Of the many proposed methods of treatment, the most pathogenetically justified are those that are aimed at vasodilation, improving the trophism of the retina, choroid and optic nerve (pentoxifylline, vinpocetine). It is advisable to prescribe antioxidants (emoxipin, histochrome). Useful vitamins: C, B_2, E, PP; anthocyanosides, trace elements: zinc, selenium. From surgical procedures, revascularization is used in the form of partial transplantation of strips of oculomotor muscles into the perichoroid region in order to improve blood circulation in the vascular membrane.

154. Pigmentary degeneration of the retina. It is recommended to wear glasses with light filters to avoid the damaging effect of light. Of the many proposed methods of treatment, the most pathogenetically justified are those that are aimed at vasodilation, improving the trophism of the retina, choroid and optic nerve (pentoxifylline, vinpocetine). It is advisable to prescribe antioxidants (emoxipin, histochrome). Useful vitamins: C, B2, E, PP; anthocyanosides, trace elements: zinc, selenium. From surgical procedures, revascularization is used in the form of partial transplantation of strips of oculomotor muscles into the perichoroid region in order to improve blood circulation in the vascular membrane.

155. Dry form of age-related macular dystrophy. To clarify the diagnosis is carried out a study of the field of view, the research using the Amsler grid, optical coherence tomography of the retina. Treatment of age-related degeneration is ineffective. Usually used antioxidants (emoxipin, histochrome), vitamins A, B1, B2, B6, carotenoids, trace elements (selenium, zinc), anticoagulants, corticosteroids, angioprotectors, lipotropic agents, peptide bioregulators (retinalamine). The use of laser coagulation and laser stimulation methods in the treatment of so-called dry forms of macular degeneration is also promising.

156. Incipient age-related cataract. Dry form of age-related macular dystrophy. To clarify the diagnosis is carried out a study of the field of view, the research using the Amsler grid, optical coherence tomography of the retina. Treatment of age-related degeneration is ineffective. Usually used antioxidants (emoxipin, histochrome), vitamins A, B_1, B_2, B_6, carotenoids, trace elements (selenium, zinc), anticoagulants, corticosteroids, angioprotectors, lipotropic agents, peptide bioregulators (retinalamine). The use of laser coagulation and laser stimulation methods in the treatment of so-called dry forms of macular degeneration is also promising.

157. The patient has retinal detachment of the left eye on the background of complicated myopia of a high degree of both eyes. Perform surgical treatment.

158. The patient has a retinal detachment of the left eye. Surgical treatment is indicated.

159. Best's yolk dystrophy. Treatment consists in the appointment of angioprotectors, antioxidants and a prostaglandin inhibitor, which are many in the contents of the cyst in the macular area.

160. Incipient age-related cataracts. Destruction of the vitreous body. Wet form of age-related macular dystrophy. To clarify the diagnosis is carried out a study of the field of view, the research using the Amsler grid, optical coherence tomography of the retina. Treatment of age-related degeneration is ineffective. In recent years, intravitreal injections of avastin and lucentis have been used for treatment.

161. Stargardt's dystrophy. Treatment consists in the appointment of neurotrophic drugs with the predominant use of an irrigation system in the retrobulbar space for maximum and long-term local therapy of the retina and optic nerve. Prescribe drugs that improve microcirculation in the retina, optic nerve and vascular membrane: trental, cavinton, halidor. It is advisable to use ENCAD (a complex of ribonucleotides), a 4% solution of taufon, cerebrolysin and antioxidants. Recently, revascularization methods have been used in the form of partial transplantation of oculomotor muscle strips into the perichoroid space in order to improve blood circulation in the vascular membrane.

162. The Disease Is Hippel-Lindau. In the early stages, treatment consists in the destruction of the angiomatous node and feeding vessels using laser coagulation, diathermocoagulation, photocoagulation, cryopexy. With secondary glaucoma, exudative retinal detachment, an operation is performed. The complex of symptomatic therapy includes corticosteroids and angioprotectors.

163. Myelin fibers of the retina. No treatment is required.

164. Retinal detachment of the left eye. It is necessary to conduct an echoophthalmography. Treatment is surgical.

165. For the diagnosis of the disease, a study of the central field of vision, fluorescence angiography and optical coherence tomography of the eye are performed. The diagnosis is central involutional dystrophy of the retina of the left eye. Incipient age-related cataract in both eyes. Laser treatment is possible.

11. DISEASES OF THE OPTIC NERVE

166. A 31-year-old patient complains of low vision in his right eye. Vision decreased gradually, painlessly. The disease is not associated with anything. Objectively. Visual acuity of the right eye = 0.3 (not corr.). The adnexal apparatus of the eye is normal. The eye is calm. Anterior segment without visible pathology. The optical medium is transparent. On the fundus, the optic disc is hyperemic, its borders are blurred. The arteries and veins are dilated, the latter convoluted. On disk plasmorrhea and hemorrhage. Left eye. Visual acuity = 1,0. your eyes healthy. A presumptive diagnosis? Additional research? Therapeutic measures?

167. A 40-year-old installer turned to an optometrist with complaints about a sharp decrease in the vision of the right eye, which he noticed 2 days ago. A week ago, he suffered acute right-sided sinusitis. Objectively. Visual acuity of the right eye = 0.2 (not corr.). The right

eye is calm, the optical media are transparent. Fundus: the disc of the optic nerve is hyperemic, its borders are blurred, swollen, somewhat penetrates into the vitreous body, the arteries are dilated, the veins are convoluted, the vascular funnel is filled with exudate. The macula and periphery of the retina without the disease. TOD = 22 mm Hg Visual acuity of the left eye = 1.0. The eye is healthy. TOS = 23 mm Hg. Additional studies? Diagnosis? Treatment?

168. A young man, 28 years old, turned to the oculist for an appointment. Complaints of decreased vision in the right eye. From the anamnesis, it was possible to find out that a month ago he suffered a severe flu. Objectively: the vision of the right eye 0.2 is not corrected, the left eye 0.7 with a correction of –1.0 D =1.0. The anterior segment of both eyes is not changed. Fundus on the right: the optic disc is hyperemic, the borders are indistinct, there are isolated hemorrhages along the course of the vessels. The field of view on the white color is narrowed, it was not possible to determine the colors. The fundus of the left eye is normal. Diagnosis? Treatment?

169. On the third day after a cold, a 26-year-old patient noticed a decrease in the vision of both eyes. Objective: Visual acuity of the right eye = 0.7 (not corrected); visual acuity of the left eye = 0.2 (not corrected). The anterior segment of both eyes is not changed. DZN are hyperemic, borders are blurred. A field of vision constricted to 20 ° in all meridians on white. Diagnosis? Treatment?

170. A 28-year-old patient complains of a sharp decrease in the vision of the right eye, slight pain when moving the eyeball. Complaints appeared the night before. Just had the flu, was treated at home. Objectively. Visual acuity of the right eye = 0.08 (not corr.). The right eye is calm, when pressing on it, there is a slight pain in the depth of the orbit. The optical medium is transparent. Fundus: the optic disc is pale pink, the borders are clear, physiological excavation. The stroke and caliber of the vessels are not changed. The macula and periphery of the retina without the disease. In the field of view – the central scotoma. TOD = 20 mm Hg. Visual acuity of the left eye = 1.0. The eye is healthy. Diagnosis? Therapeutic measures?

171. An ophthalmologist was contacted by a 56-year-old patient with complaints of sudden deterioration of vision in both eyes. The disease is not associated with anything. In appearance and behavior, it seems that the patient suffers from alcoholism. According to the wife accompanying the patient, the patient had been drinking with friends the day before. The wife of one of them called in the morning. My husband's eyesight also dropped dramatically. When examining the patient objectively: visual acuity of both eyes = 0.02 (not corr.). The eyes are completely calm. On the cornea of both eyes from the inside in the form of a tongue, the conjunctiva creeps. In the rest of the front segments without any visible changes. The optical medium is transparent. On the fundus on both sides of the optic nerve discs with a grayish tinge, with clear borders. The stroke and gauge of the vessels are not changed. There is no focal pathology. What additional research needs to be done? The possible diagnosis? Therapy?

172. A 21-year-old patient is referred to an oculist by a neurologist to examine the fundus. Patient's complaints: headaches that appeared three months ago. Blood pressure 110 and 70 mm Hg, visual acuity of both eyes 1.0. Right eye: the anterior segment and fundus are normal. Left eye: the front segment is not changed. On the fundus, there is an increase in the optic nerve disk, its prominence, the borders are indistinct, the color of the disk is not changed. Vessels slide off the disc. The veins are dilated, convoluted, and there are striated

hemorrhages along some of them. The macular area is unchanged. Diagnosis? What examinations should be carried out to confirm it? Treatment?

173. A 61-year-old patient complains of periodic blurred vision of the left eye, headaches. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 1.0. The adnexal apparatus of the eye is not changed. The eye is calm. The front segment has no visible changes. When viewed in passing light against the background of the red reflex in the plane of the pupil, triangular strokes are visible, with the vertex directed to the center. On the fundus, the disc of the optic nerve is enlarged in size, mushroom-shaped bulges into the vitreous body. The vessels seem to climb up on it. The disc color is pinkish-gray, the borders are indistinct. Pronounced peripapillary edema with isolated hemorrhages. A presumptive diagnosis? Additional research? Therapeutic measures?

174. A 34-year-old patient was consulted in the neurological department. Complaints of temporary complete loss of vision for a few seconds. The patient is worried about a headache. Visual acuity does not suffer. The eyes are calm, the anterior segments without visible pathology. The optical medium is transparent. On the fundus on both sides, the optic nerve discs are slightly enlarged (larger on the right) and mushroom-shaped bulge into the vitreous body. The vessels of the retina seem to climb on it, making bends. The color of the discs is pinkish-grayish. Their borders are not quite clear. Peripapillary edema is more pronounced on the right, and individual vessels are lost in it. The veins are dilated, twisted. A few retinal hemorrhages in the peripapillary area of the right eye. What additional research are you interested in? The intended diagnosis? Therapeutic measures?

175. A 64-year-old patient turned to an optometrist due to a sudden decrease in vision of the left eye that occurred the day before. Reduced vision is not associated with anything. Objectively. Visual acuity of the right eye = 0.2 with a sphere-1.5 D = 0.8. The eye is calm. The front segment has no visible changes. In the passing light, the red reflex. When examining the eye in the state of mydriasis, black spines are visible along the periphery in the transmitted light, directed with the apex to the center. The fundus of the eye without visible changes. Visual acuity of the left eye = 0.01 (not corresponding). The eye is calm. The front segment has no visible changes. In the passing light, the red reflex. When examining the eye in the state of mydriasis, black spines are visible along the periphery in the transmitted light, directed with the apex to the center. On the fundus, the optic nerve disc is swollen, enlarged, penetrates into the vitreous body, its boundaries are blurred. There are small hemorrhages near the disc. The arteries are sharply narrowed, of uneven caliber. In the study of the field of view determined by the upper hemianopsia. The intended diagnosis? Therapeutic measures?

176. A 17-year-old patient is referred for consultation to an optometrist. Complaints about poor vision in the right eye. Objectively: the visual acuity of the right eye 0.3 is not corrected; the visual acuity of the left eye 1.0. The anterior segment of both eyes is not changed. The field of vision of the right eye is narrowed, the left eye is normal. Fundus of the right eye: the optic disc is monotonously pale, the borders are clear, the vessels are not changed, there is no pathology in the macular zone. The fundus of the left eye is normal. Emmetropic refraction. Diagnosis? Treatment?

Answers to situational problems.

166. The presumed diagnosis is optic neuritis on the right. They explore the fields of vision and color perception. The causes of optic neuritis can be inflammatory diseases of the brain

and its membranes, the eyeball and eye socket, ear, throat and nose, acute and chronic infections, general diseases of toxic-allergic genesis-an examination is necessary. General anti-inflammatory and hyposensitizing (antibiotics, corticosteroids retrobulbarno and inside, nonsteroidal anti-inflammatory, antihistamines, vitamins C, B_1, B_6, B_{12}), detoxification (40% glucose solution with ascorbic acid intravenously), dehydration (lasix, calcium chloride intravenously, acetazolamide, glycerin inside) therapy.

167. *Neuritis of the optic nerve on the right. They explore the fields of vision and color perception. The causes of optic neuritis can be inflammatory diseases of the brain and its membranes, the eyeball and eye socket, ear, throat and nose, acute and chronic infections, general diseases of toxic-allergic genesis-an examination is necessary. General anti-inflammatory and hyposensitizing (antibiotics, corticosteroids retrobulbarno and inside, nonsteroidal anti-inflammatory, antihistamines, vitamins C, B_1, B_6, B_{12}), detoxification (40% glucose solution with ascorbic acid intravenously), dehydration (lasix, calcium chloride intravenously, acetazolamide, glycerin inside) therapy.*

168. *Neuritis of the optic nerve on the right. General anti-inflammatory and hyposensitizing (antibiotics, corticosteroids retrobulbarno and inside, nonsteroidal anti-inflammatory, antihistamines, vitamins C, B_1, B_6, B_{12}), detoxification (40% glucose solution with ascorbic acid intravenously), dehydration (lasix, calcium chloride intravenously, acetazolamide, glycerin inside) therapy.*

169. *Neuritis of the optic nerves. General anti-inflammatory and hyposensitizing (antibiotics, corticosteroids retrobulbarno and inside, nonsteroidal anti-inflammatory, antihistamines, vitamins C, B_1, B_6, B_{12}), detoxification (40% glucose solution with ascorbic acid intravenously), dehydration (lasix, calcium chloride intravenously, acetazolamide, glycerin inside) therapy.*

170. *Retrobulbar neuritis. They explore the fields of vision and color perception. The causes of optic neuritis can be inflammatory diseases of the brain and its membranes, the eyeball and eye socket, ear, throat and nose, acute and chronic infections, general diseases of toxic-allergic genesis-an examination is necessary. General anti-inflammatory and hyposensitizing (antibiotics, corticosteroids retrobulbarno and inside, nonsteroidal anti-inflammatory, antihistamines, vitamins C, B_1, B_6, B_{12}), detoxification (40% glucose solution with ascorbic acid intravenously), dehydration (lasix, calcium chloride intravenously, acetazolamide, glycerin inside) therapy.*

171. *It is necessary to conduct a visual field study, MRI. It is possible to assume that the patient has retrobulbar neuritis, which developed with methyl alcohol poisoning. At the first stage, general anti-inflammatory and hyposensitizing (antibiotics, corticosteroids retrobulbarno and inside, non-steroidal anti-inflammatory, antihistamines, vitamins C, B_1, B_6, B_{12}), detoxification (40% glucose solution with ascorbic acid intravenously), dehydration (lasix, calcium chloride intravenously, acetazolamide, glycerin inside) therapy is carried out.*

172. *Congestive disc of the optic nerve. It is necessary to conduct perimetry, fluorescent angiography, consultations with a neurologist and neurosurgeon, examine the pressure and composition of the cerebrospinal fluid. CT, MRI, and X-ray data are obtained. Treatment is aimed at the underlying disease.*

173. *Presumptive diagnosis of congestive optic nerve discs?, incipient age-related cataracts in both eyes. Conduct fluorescent angiography, consult a neurologist and neurosurgeon,*

examine the pressure and composition of the cerebrospinal fluid, Get CT, MRT, X-ray data. Treatment is aimed at the underlying disease.

174. It is necessary to conduct perimetry, fluorescent angiography, consultations of a neurologist and neurosurgeon, examine the pressure and composition of the cerebrospinal fluid. CT, MRT, and X-ray data are obtained. Treatment is aimed at the underlying disease.

175. Incipient age-related cataract of both eyes. Congestive disc of the optic nerve on the left in patients with brain tumors. With unilateral stagnation, local causes should always be excluded – orbital pathology, hypotension of the eyeball, etc. Neurological symptoms, pressure and composition of the cerebrospinal fluid, CT, MRI results, and X-ray data are also important for the diagnosis of the cerebral volumetric process. In some cases, a stagnant disk can be combined with characteristic changes in the fields of vision in the form of hemianopsias. This is observed when the tumor process is located in the chiasm and visual tracts. The long-term existence of a stagnant optic disc leads to a decrease in visual functions due to compression of nerve fibers.

176. Partial atrophy of the optic nerve. Apply vasodilators, angioprotectors, drugs that improve microcirculation, osmotherapy, vitamin therapy, electrical stimulation.

12. EYE AND GENERAL PATHOLOGY OF THE BODY

177. When consulting a 64-year-old patient in the therapeutic department, the following picture is determined on the fundus of both eyes. Retinal veins are dilated, convoluted. The arteries are somewhat narrowed, of uneven caliber. Positive symptoms of Gwist and Salus are I. Mild hyperemia of the optic disc. Single point hemorrhages in the retina. Diagnosis? What or what stages of hypertension do these changes correspond to?

178. In a 68-year-old patient suffering from hypertension, dilation and tortuosity of the veins are determined on the fundus of both eyes. The arteries are narrowed, their walls are thickened, individual stems are obliterated (a symptom of silver wire). Corkscrew-like tortuosity of venous stems in the macular region. At the intersection of the veins with the arteries, the vein before the cross bends and becomes sharply thinned (Salus II). Diagnosis? What stage of hypertension do these changes correspond to?

179. A 70-year-old patient came to see an optometrist, from a therapist, to examine the fundus of the eye. Objectively, the visual acuity of both eyes is 0.6 with a sphere of +2.0 D = 1.0. In the lens of both eyes, there are gentle opacities in the cortical layers. Fundus of both eyes: Optic nerve discs of normal color, clear borders. The arteries are narrow, sometimes of uneven caliber. Salus-Gong symptom II. There is a symptom of "copper wire". There is no reflex from the macula. A symptom of Gwist. The veins are slightly full-blooded. What disease is characterized by these symptoms? What do they mean? Diagnosis? Treatment?

180. When examining the fundus of both eyes, a 72-year-old patient complaining of decreased vision shows convoluted and dilated veins. The arteries are narrow, obliterated in places. At the points where the artery intersects the vein, the latter becomes invisible. Focal opacities in the retina. Multiple hemorrhages along the course of the vessels. In the area of the yellow spot, there are yellow-white foci and plasmorrhagia that form the shape of a star. Discoid macular edema of the retina. Diagnosis? What stage of hypertension does such changes correspond to? Therapeutic measures?

181. A 43-year-old patient is consulted by an optometrist about hypertension. Excerpt from the consultant's record: on the fundus on both sides of the optic nerve discs are gray-pink, edematous. The vessels are sharply narrowed, without sclerotic changes. The Salus II-III. Numerous flaky white spots on the retina. The retina is grayish. The posterior pole has multiple hemorrhages of various shapes and sizes. In the area of the yellow spot, the figure of a star. The intended diagnosis? More research? Therapeutic measures?

182. A 54-year-old patient complains of decreased vision in both eyes. Objectively. Visual acuity of both eyes = 0.7 (not corr.). The adnexal apparatus is normal. His eyes are calm. The front segments without any visible changes. In the transmitted light, against the background of the red reflex from the fundus along the periphery of the pupil, black spoke-like opacities are visible, directed with the apex to the center of the pupil. On the fundus, the optic disc is pale pink, with clear borders. Microaneurysms are visible on the terminal venules. The uneven caliber of the veins. Along the course of the vessels, small-point hemorrhages and waxy exudates. Macular and foveal reflexes are absent. A presumptive diagnosis? Additional research? Therapeutic measures?

183. A 50-year-old patient from an endocrinologist came to study the fundus. He has been suffering from diabetes for 10 years. Objectively: the vision of the right eye is 0.04 not corrected, the cornea is edematous. There is blood in the anterior chamber, the fundus is poorly visible. IOP 30 mm Hg. Visual acuity of the left eye 0.6 is not corrected, the cornea is transparent. The anterior chamber is of medium depth, the lens is transparent. On the fundus: the optic disc is not changed. In the macular area of microaneurysms, hemorrhages. In the paramacular zone, cotton wool-like exudates. IOP = 24 mm Hg. Diagnosis? Treatment?

184. A 31-year-old patient is referred for consultation to an oculist from the physiotherapy department of the hospital, where she is undergoing another course of treatment for recurrent gonitis on the left. During ophthalmoscopic examination, grayish compact couplings are found on the fundus on both sides around the vessels for some distance. Along the course of the affected vessels, there are grayish proliferative foci. Isolated small retinal hemorrhages. Diagnosis? Therapy?

185. A 29-year-old patient was consulted by an ophthalmologist in the therapeutic department. He doesn't complain about his eyesight. Ophthalmoscopy revealed that the contours of the optic nerve discs merge with the surrounding retina, the veins are almost indistinguishable from the arteries. On the periphery, yellowish-white rounded formations are visible, somewhat prominating above the level of the retina, surrounded by a ring of hemorrhages. There are white couplings around the vessels. Diagnosis? Treatment?

186. A 56-year-old patient is consulted by an optometrist in an oncological dispensary. A funduscopic examination revealed the following changes of the ocular fundus. The fundus has a pale background. There are multiple hemorrhages around the edematous disc of the optic nerve and in the central area of the retina. Single small white foci on the periphery. The arteries and veins are very pale, almost the same color. Diagnosis? Treatment?

Answers to situational problems.

177. Hypertensive angiopathy of the retina. Changes in the fundus usually correspond to the Ib-IIa stages of hypertension.

178. The patient has hypertonic retinal angiosclerosis. Changes in the fundus usually correspond to stage II hypertension.

179. The patient has hypertonic retinal angiosclerosis. The symptom of Salus-Hun arterio-venous depression indicates the presence of irreversible changes caused by organic damage to the arterial walls. The symptom of Gwista – corkscrew-like tortuosity of small veins in the macular area corresponds to the stage of unstable increase in blood pressure. Treatment of hypertension.

180. The patient has hypertensive retinopathy. Changes in the fundus usually correspond to stage III hypertension.

181. The presumed diagnosis is renal retinopathy. It is necessary to study the functions of the urinary system. Treatment by a nephrologist.

182. Presumptive diagnosis: diabetic retinopathy?, incipient age-related cataract of both eyes. Examine the blood sugar level. Consultation and treatment of an endocrinologist. Angioprotectors and antioxidants are used. After fluorescence angiography, laser coagulation of the retina is performed.

183. Hyphema, partial hemophthalmos, secondary glaucoma of the right eye. Preproliferative diabetic retinopathy of the left eye. Instillation of antihypertensive drugs into the right eye. Hemostatic therapy, diuretics. Left after improving the condition of the right eye – laser coagulation of the retina.

184. Rheumatic retinovascular. Consultation and treatment of a rheumatologist.

185. Fundus changes are characteristic of chronic myeloid leukemia. Treatment by a hematologist.

186. The ophthalmoscopic picture is characteristic of progressive secondary anemia due to intoxication (possibly cancerous cachexia). Treatment by an oncologist and hematologist.

13. NEOPLASMS OF THE VISUAL ORGAN

187. A 32-year-old woman turned to an optometrist with complaints of a neoplasm on the lower eyelid of the right eye. The formation appeared about four months ago, gradually increasing. Objectively. On the lower eyelid of the right eye there is a papillary growth of a cylindrical shape. The color is grayish-yellow with a dirty coating. It has a thin leg. It looks like a skin formation. Diagnosis? Treatment?

188. The parents of a two-month-old girl complained to the children's polyclinic about the presence of a red spot on the lower eyelid of the left eye. The spot was noticeable from birth, but recently it has increased. Objectively. On the lower eyelid of the left eye, a tumor is determined in the form of nodes of bright red color, measuring 2x1 cm. Palpation is painless. The neoplasm is soft to the touch. Diagnosis? Tactics in treatment?

189. A 47-year-old woman complained about the presence of a neoplasm on the lower eyelid of the left eye. Problems with the eyelid appeared about six months ago, after a stay at sea. At first, redness of the skin appeared, which was hardly reduced when smeared with

corticosteroid ointments. However, soon in the place of redness appeared peeling on the surface of the seal. About a month later, a depression with an ulcerated surface developed in the center, the area of which is steadily increasing. Objectively. On the skin of the lower eyelid of the left eye, an ulcerated seal about one centimeter in size. Tightly soldered to the underlying tissues. The ulcer bleeds easily enough. There are phenomena of conjunctivitis. The right eye is healthy. Diagnosis? Treatment?

190. A 56-year-old man came to see an ophthalmologist with complaints about the presence of a neoplasm on the right eyeball. The neoplasm appeared about a month ago, gradually increased. The patient suffers from hypertension, osteochondrosis. Works at a petrochemical plant. Objectively. Visual acuity of both eyes = 1.0. On the right side of the conjunctiva in the upper-outer quadrant of the limb, a plaque with clear borders slightly protruding above the surface. The tumor spreads to the cornea by 2 mm. The color of the tumor is grayish, soldered to the underlying tissues. The left eye is healthy. Diagnosis? Treatment?

191. A 23-year-old student of the medical Academy turned to an ophthalmology teacher for advice. She has a spot of brown color on her right eye, which has not increased or become inflamed for a long time. At objective inspection it is revealed. Visual acuity of both eyes = 0.6 with a sphere –1.0 D = 1.0. Eyes are calm. On the conjunctiva of the right eyeball near the limb there is a spot of light brown color, almost triangular in shape, slightly vascularized. Its surface is smooth. The boundaries are clear. Diagnosis? Treatment?

192. A 46-year-old woman with complaints of the presence of neoplasms in the left eye socket, displacement of the left eyeball, double vision, decreased vision of this eye, lacrimation, minor pain in this eye. The tumor appeared a few months ago, gradually increased. With an objective examination, it is determined. Visual acuity of the right eye = 1.0. TOD = 20 mm Hg. The eye is healthy. Visual acuity of the left eye = 0.1 (not corr.). TOS = 20 mm Hg. The upper eyelid is unevenly lowered. The upper transition fold is smaller than on the right. Exophthalmos with a shift of the eye downwards and inwards. The palpable tumor is lumpy, practically not displaced in relation to the underlying tissues. Eye movements are limited in the direction of localization of the tumor, reposition is sharply difficult. A presumptive diagnosis? The necessary research? Treatment? Prognosis for life and vision?

193. A 57-year-old woman complained of reduced vision in her right eye to an optometrist at the polyclinic. Vision began to decline about a year and a half ago, but within the last 3 months-quite quickly. Of the previously transferred diseases, he notes osteochondrosis, calculous cholecystitis. It does not indicate any other diseases. All my life I worked in the assembly shop of a mechanical plant. On examination, it was revealed objectively. Acuity of the right eye = 0.09 (not corr.). Visual acuity of the left eye = 0.9 (not corr.). The right eye is weakly injected due to dilated scleral vessels at 10-11 hours. The cornea is transparent, shiny. The anterior chamber is somewhat uneven: smaller in the above meridians. Through the medically dilated pupil, a clearly delineated, dark-colored, rounded tumor node is clearly visible here. The lens is partially clouded, slightly displaced in the direction opposite to the tumor. The folds of the iris, concentric tumor, about iridodialysis. The pupil is irregular in shape and reacts sluggishly to light. The fundus of the eye without a visible pathology. The left eye is healthy. TOU = 22 mm Hg. Diagnosis? Treatment?

194. An engineer of 50 years of age, applied for an appointment with an optometrist with complaints of reduced vision in the left eye. These complaints appeared about 2 months ago. The disease is not associated with anything. Objectively. Visual acuity of the right eye = 1.0. TOD = 24 mm Hg. The eye is healthy. Visual acuity of the left eye = 0.1 (not corr.).

TOS = 24 mm Hg. The eye is calm. Anterior segment without pathology. When ophthalmoscopy with a narrow pupil, in the lower inner quadrant of the eye, the presence of a dark formation is detected. After dilation of the pupil, a large brown prominating formation with clear borders and foci of hemorrhage on its surface was found in the same zone. Retinal edema in the macular area. Diagnosis? More research? Therapeutic measures?

195. In a 4-year-old child, the vision of the left eye sharply decreased for several months. Parents drew attention to the broad "glowing" pupil of the eye. Pain does not bother the child. When viewed objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 1/∞ p. l. inc. The appendage of the eye is not changed. The eye is calm. The front segment has no visible changes. The pupil is round, dilated, practically does not react to light. The optical medium is transparent. Ophthalmoscopically, a yellowish-golden lumpy formation is visible on the fundus of the eye. A presumptive diagnosis? More research? Treatment?

196. To ophthalmologist patient turned 55 years with complaints of pain in the right eye, slight protrusion of the eye. The protrusion appeared about 2 months ago, was completely painless and insignificant, but gradually increased. About a week ago there were pains. The patient suffers from acquired immunodeficiency syndrome. Objectively. Visual acuity of the right eye = 0.4 (not corresponding). Exophthalmos, reposition of the eye is impossible. Red chemosis. On the fundus – a stagnant disc of the optic nerve. The left eye is healthy. Exophthalmometry: right eye 27 mm, left eye 18 mm. Additional research and advice? The possible diagnosis? Treatment? Forecast?

Answers to situational problems.

187. Papilloma of the lower eyelid of the right eye. Treatment is surgical.

188. Capillary hemangioma of the lower eyelid of the left eye. The first 6 months of the child's life, the tumor grows rapidly, then a period of stabilization occurs. By the age of 7, 75% of children may have complete regression of hemangioma. If this does not happen, cryodestruction of the neoplasm is possible, with a nodular form, immersion diathermocoagulation with a needle electrode is effective.

189. Scaly cell carcinoma of the lower eyelid of the left eye. Treatment is surgical. Brachytherapy, short-range radiotherapy or cryodestruction are possible.

190. Bowen's epithelioma. Treatment is surgical.

191. Stationary nevus of the conjunctiva. The presence of a triad of signs: a change in pigmentation (strengthening or weakening it), vascularization of the nevus and indistinctness of the boundaries makes it possible to differentiate the true progression of the tumor from its increase due to reactive epithelial hyperplasia. Treatment is indicated when signs of growth appear and consists in excision of the nevus.

192. Presumptive diagnosis of lacrimal gland cancer. Necessary tests: X-ray of the orbit, computed tomography, ultrasound, fine needle aspiration biopsy. Treatment is surgical. The prognosis for life and vision is poor, as the tumor is not only prone to relapse with germination into the skull cavity, but also metastasizing to the lungs, spine or regional lymph nodes.

193. *Melanoma of the ciliary body, complicated cataract of the right eye. Treatment for localized melanomas of the ciliary body may be limited to local removal (partial lamellar scleroveectomy). Radiation treatment is possible. In large tumors (occupying more than 1/3 of the circumference of the ciliary body), only enucleation is indicated.*

194. *The patient has a pigmented neoplasm of the choroid of the left eye, possibly melanoma. Additional methods of examination (ultrasound scanning, fluorescence angiography, computed tomography, fine needle aspiration biopsy) help in clarifying the diagnosis. Before deciding on the nature of treatment, a patient with uveal melanoma should be carefully examined by an oncologist in order to exclude metastases. For treatment, organ-preserving methods of treatment are used. Such methods include laser coagulation, hyperthermia, cryodestruction, and radiation treatments. When prekatrina located tumors may local remove. In severe cases – enucleation.*

195. *The presumed diagnosis is retinoblastoma of the left eye. Perform ophthalmoscopy with the maximum dilated pupil. Ultrasound scanning complements the diagnosis of retinoblastoma, allows you to determine its size, confirm or exclude the presence of calcifications. Computed tomography of the orbits and brain is indicated for children older than 1 year of life. Treatment – cryodestruction, laser coagulation and radiation therapy. In severe cases – enucleation.*

196. *Ultrasound scanning, computed tomography and fine needle aspiration biopsy with cytological examination. Malignant lymphoma(non-Hodgkin's). It is necessary to be examined by an oncologist and hematologist to exclude a systemic lesion. External irradiation of the orbit is an almost non-alternative highly effective method of treatment. Polychemotherapy is connected with a systemic lesion. The prognosis for primary malignant lymphoma is favorable for life and vision (83% of patients survive a 5-year period). The prognosis for life deteriorates sharply with disseminated forms.*

14. DISEASES OF THE LENS

197. The ophthalmologist of the children's polyclinic during the examination of a 4-year-old child drew attention to the following. Checking the visual acuity of both eyes without optical correction gave a result of 0.8. The child's eyes are completely calm. Anterior segments without visible pathology. When examined in transmitted light, black dots are visible on both sides of the center against the background of the red reflex, which are motionless if the child does not move his eyes and move with the movement of the eye. The fundus was normal. After dilation of the pupils and examination with a slit lamp, local opacities of the lens in the center near the posterior capsule were revealed. Diagnosis? Therapeutic measures?

198. The parents brought a 2-year-old boy to the children's eye doctor's office. Complaints of sharp pain in the left gas. On the part of the general condition, there is asthenia, slight elongation of the fingers and thickening of the terminal phalanges. Visual acuity of the right eye = 0.04 with a spherical glass –15.0 D = 0.1; Objectively: the eye is calm, hypoplasia of the iris, iridodenesis. The lens is displaced upwards. The fundus was normal. Visual acuity of the left eye = 1/∞ p. l. incerta. Expressed phenomena of irritation, stagnant injection of the vessels of the eyeball. The cornea is cloudy due to edema of the epithelium. The front camera is small. Hypoplasia of the iris, iridodenesis. A small lens is inserted in the pupil area. The fundus was normal. IOP left 45 mm Hg. Diagnosis?

199. Patient Zh., 56 years old, complains of deterioration of vision in both eyes, more pronounced on the right. I noticed this about a week ago, after suffering from the flu. Previously, I did not pay attention to the decrease in vision. Objectively. Eyes calm. Visual acuity of the right eye = 0.1 (not corr.). Visual acuity of the left eye = 0.7 (not corr.). The front segments without any visible changes. In the passing light, against the background of the red reflex, black spikes are visible from the fundus, directed with the top to the center. The fundus was normal. Additional research? The possible diagnosis? Treatment?

200. A 58-year-old patient complains of "smoke" in front of his right eye. He sees with this eye several (instead of one) objects at once, especially luminous ones. Visual acuity of the right eye = 0.4 with a spherical glass –2.0 D = 0.8. The eye is calm. The front segment has no visible changes. When viewed in passing light against the background of the red reflex in the plane of the pupil, triangular strokes are visible, with the vertex directed to the center. The fundus was normal. Visual acuity of the left eye = 1.0. The eye is healthy. The possible diagnosis? Additional research? Treatment?

201. A 69-year-old patient complains of decreased vision in both eyes, more pronounced on the left. Vision decreased gradually and painlessly, the disease is not associated with anything. Objectively. Eyes calm. Visual acuity of the right eye = 0.8 (not corr.). Anterior segment without visible pathology. In the passing light, against the background of the red reflex, black spikes are visible from the fundus, directed with the top to the center. Fundus is within normal limits. Visual acuity of the left eye = 0.09 (not corr.). The eye is calm. The cornea is smooth, shiny, transparent. The front camera is smaller than the one on the right eye. The pattern and color of the iris are not changed. The pupil is round, of medium size. When viewed by focal illumination in the plane of the pupil, an unevenly clouded gray-white lens is visible. On the lens there is a semilunar shadow from the iris. The fundus is not visible in detail. Diagnosis? Additional research? Treatment?

202. A 70-year-old patient turned to an ophthalmologist with complaints of low vision in his left eye, which he discovered accidentally by closing his right eye, due to a speck of dust falling into it. During the examination, the following data were obtained: the acuity of the right eye with a correction of 0.6, the left eye 0.03. Objectively: in side lighting, the pupils are 2.5 mm, the pupil area of both eyes has a grayish tint, especially the left one. In the transmitted light on the right, against the background of the red reflex, dark spots in the form of (spokes) are visible in the area of 3-5 hours, the fundus is without pathology, on the left, the reflex from the fundus is visible at the extreme periphery when looking up, the fundus is not ophthalmoscoped. The field of vision of both eyes is normal, color perception is preserved. IOP = 23 mm Hg. Formulate a diagnosis for each eye separately. What do you recommend to the patient?

203. A 70-year-old patient has recently begun to notice a gradual, painless decrease in the vision of both eyes. The right eye does not distinguish objects. The vision of the right eye also decreased noticeably. Previously, the eyes did not hurt, the eye injury denies. He wasn't sick. He denies diabetes mellitus (he was examined by an endocrinologist). IOP of both eyes with repeated measurement of 21-22 mm Hg. What studies should an ophthalmologist conduct? Make a possible diagnosis.

204. A 65-year-old patient complains of a gradual decrease in the vision of both eyes, more than the right one. I noticed it a year ago. Objectively. Visual acuity of the right eye = 0.02 (not corr.). TOD=19 mm Hg. The right eye is calm. The cornea is transparent, spherical. The front camera is of medium depth, the moisture is transparent. The iris in color and pattern

is not changed. The lens has a grayish tinge. After dilation of the pupil, diffuse opacity of the central and lower parts of the lens is visible. On the rest of the periphery, the reflex is clearly visible. Visible part of the fundus without pathology. Visual acuity of the left eye = 0.1 sph. +2.0 D = 0.7. The eye is calm, the front segment is normal. Against the background of the red reflex from the fundus in the lens, black spikes are visible, directed with the tip to the center. The fundus was normal. Diagnosis? Therapeutic measures?

205. A 65-year-old patient consulted an optometrist. Complaints of reduced vision in both eyes, especially the left one. My vision began to deteriorate 4 years ago. In the last 2-3 months, I stopped reading, my left eye sees light poorly, does not distinguish objects. It can not link the decrease in vision with any cause. IOP with constant monitoring at the level of 21-24 mm Hg, the field of vision of both eyes is normal. What research methods should be used to establish a diagnosis? What is the nature of this disease?

206. A 76-year-old patient with a diagnosis of incipient age-related cataract of the right eye (visual acuity 0.6) and mature age – related cataract of the left eye (visual acuity-light perception with the correct projection) will undergo cataract extraction surgery in the left eye. What kind of correction after surgery of the left eye would be optimal for this patient?

207. A 23-year-old patient accidentally noticed that his right eye could not see. I turned to the optometrist. From the anamnesis, it was found out that during the return from work from the night shift, the patient was struck with a blunt object on the right side of the face and head. He worked as a turner in a factory. Objectively: the visual acuity of the right eye is reduced to light perception with proper light projection. When examined by lateral illumination, the pupil area of the right eye is uniformly gray: there is no reflex from the fundus in the transmitted light. Vision of the left eye 1.0. What is the presumed diagnosis? Can this patient to work as a Turner at the present time? How to help the patient?

208. A 25-year-old patient turned to an ophthalmologist with complaints of a gradual decrease in the vision of the right eye, which he noticed shortly after a blunt trauma to the right side of the face and head. The patient works as a driver. Objectively: the visual acuity of the right eye is light perception with the correct projection. When viewed by side lighting, the pupil area of the right eye is gray-white, there is no reflex from the fundus in the transmitted light. The left eye is healthy, visual acuity is 1.0. What is the presumed diagnosis? Can this patient currently work as a driver? If not, how do I get him back to his previous job?

209. A 30-year-old patient turned to an ophthalmologist. Complaints of low vision in the right eye. From the anamnesis, it was possible to establish that a year ago, when falling, he received a severe bruise of the head, a fracture of the upper tibia and 2 ribs. Visual acuity of the right eye is 0.01, not corrected, the left eye is 1.0. Objectively: the right eye is calm, in side lighting the pupil area has a grayish-white color, there is no reflex from the fundus. The field of view is normal, it distinguishes colors. IOP=20 mm Hg. At ultrasonic echography of pathological teeth it is not revealed. The left eye is healthy. Formulate a diagnosis. Can I help the patient?

210. A 70-year-old patient complains of the lack of objective vision of the right eye and a decrease in the vision of the left eye. Vision decreased gradually over 2 years. I didn't go to the doctor. Objectively. Visual acuity of the right eye = correct light perception. TOD = 20 mm Hg. The conjunctiva of the right eye is calm, the cornea is transparent, spherical. The front camera is of medium depth, the moisture is transparent. The iris is subatrophic, the pigment border is preserved. The pupil is round and reacts to light. The lens is unevenly cloudy, gray in color with a pearlescent tinge. There is no reflex from the fundus. Visual

acuity of the left eye = 0.04 (not corr.). TOS = 20 mm Hg. The cornea is transparent, the anterior chamber is of medium depth, the moisture is transparent. The iris is subatrophic, the pigment border is preserved. The pupil reacts to light. The lens is cloudy in the central parts, red reflex on the periphery. In this area of the fundus of the eye without pathology. Diagnosis? Therapeutic tactics?

211. During a routine inspection of hot shop workers (steelworkers), it was found that out of 900 examined, 3 had opacity in the posterior layers of the lens, which has the shape of a "bowl". The average age of workers is from 25 to 40 years. Work experience at this company is 6-15 years. What is the etiology of diseases?

212. During a professional examination at the enterprise in a 68-year-old patient, the following changes in the right eye were revealed. Visual acuity of the right eye = 1.0. The eye is completely calm. The cornea is smooth and transparent. The front chamber is deep, with clear moisture. The pattern and color of the iris are not changed. In places, areas of atrophy. When the eye moves, the iris fluctuates. At 12 o'clock, there is a hole in the iris. The pupil is irregular-hexagonal in shape. In the plane of the pupil is a rounded biconvex completely transparent foreign body. Three transparent pins extend from the end of it. In the passing light, the red reflex. The fundus was normal. Visual acuity of the left eye = 1.0. The eye is healthy. Diagnosis?

213. A 47-year-old patient with diabetes mellitus for 7 years is under the supervision of an endocrinologist. Systematically receives insulin. A year ago, there was a fog in front of my eyes, vision deterioration. The endocrinologist recommended an ophthalmologist's consultation. On examination, the ophthalmologist noted turbidity in the posterior layers of the lens, which have the shape of a"bowl". What diagnosis should I make? What is the nature of this disease?

214. An examination of an 86-year-old patient revealed the following ophthalmological picture. The visual acuity of the right eye is equal to the light perception with an incorrect projection. The right eye is calm. The cornea is smooth transparent, shiny, but at the periphery it is clouded in the form of a ring. Between the annular opacity and the sclera is a transparent ring of the cornea. The front chamber is deep, with clear moisture. When the eye moves, the tremor of the iris and lens is determined. The cortex of the lens is enlightened. The brown smooth core sank down. The fundus is not visible in detail IOP = 25 mm Hg. Visual acuity of the left eye = 0.02 (not corr.). The eye is calm. The cornea is smooth transparent, shiny, but at the periphery it is clouded in the form of a ring. Between the annular opacity and the sclera is a transparent ring of the cornea. Front camera is of medium depth with a transparent moisture. The pattern and color of the iris are not changed. The pupil is round, medically dilated to 5 mm. In the passing light, against the background of the red reflex, black spikes are visible from the fundus, directed with the top to the center. On the fundus in the macular area, dystrophic foci in the form of whitish spots with pigment deposition. IOP = 20 mm Hg. Additional research? The possible diagnosis? Treatment?

215. A 68-year-old patient complains of reduced vision in the distance with relatively preserved vision near. He began to read fluently without glasses. Visual acuity of both eyes = 0.1 with a sphere – 4.0 D = 0.6. Eyes are calm. The front segments without any visible changes. In side lighting, the lenses have a light green tint. In the transmitted light, the pink reflex is preserved, against which fine-grained opacities are visible. When you turn the ophthalmoscope, a ring-shaped shadow is captured. The greenish or slightly brownish tint of the clearly contoured core is especially clearly visible on the optical section during

biomicroscopy. Visible parts of the fundus without pathology. TOU= 23 mmHg Possible diagnosis? Treatment?

216. An 81-year-old patient complains of low vision in her left eye. Vision decreased gradually, painlessly. Objectively. Eyes calm. Visual acuity of the right eye = 0.04 with a sphere +10.0 D = 0.9. The cornea is transparent. The front chamber is deep, with clear moisture. The pattern and color of the iris are not changed. Iridecent. The pupil is round. In the passing light, the red reflex. On the fundus of the phenomenon of hypertonic retinal angiosclerosis. Visual acuity of the left eye – light perception with the correct projection. The front segment has no visible changes. In the plane of the pupil, the cloudy lens is gray-white. The subject parts of the eye are not visible. Diagnosis? Additional research? Therapeutic measures?

217. A 27-year-old patient, who suffered an injury to his right eye two years ago, was operated on. Currently, the low vision of the right eye, the inability to use two eyes at the same time, is a concern. Objectively. Visual acuity of the right eye = 0.03 with spherical glass +8.0 D and cylindrical +1.5 D axis 165° = 1.0. The eye is calm. On the periphery of the cornea, at 4 o'clock, an irregular scar with a size of up to 8 mm. The anterior chamber is uneven due to the anterior synechia, deep, with transparent moisture. The iris is atrophic in places. The pupil is irregular in shape, pulled up to the scar. In the passing light, the red reflex. Fundus is within normal limits. Visual acuity of the left eye = 1.0. The eye is healthy. Diagnosis? Methods of correction? Possible therapeutic measures?

218. A 71-year-old patient was taken to an ophthalmological hospital in the evening with severe pain in her left eye. From the anamnesis, it was found that the vision of this eye worsened during the day, when the patient helped her son to rearrange the wardrobe. The patient did not pay attention to the decrease in vision, believing that it would recover on its own. However, after a few hours, the eye turned red, there were first minor pains, and then they turned into unbearable. The patient was taken to the hospital by an ambulance. On examination, it is determined that the right eye is healthy. On the left, visual acuity is equal to light perception with an incorrect projection. The eyeball is sharply injected in a mixed type. Painful on palpation. The cornea is edematous, translucent. The entire front chamber seems to be filled with an oily liquid and seems to be deep. The iris behind it is not clearly visible. The pupil is round, slightly dilated. In the passing light, a vague red reflex. The fundus cannot be seen. Palpation T_{+3}. Determine further studies, possible diagnosis, and necessary treatment.

219. The patient is 22 years old. Complaints of sharp pain in the left eye. Objectively, Visual acuity of the right eye = 0.04 with a corresponding –15.0 D = 0. l; Visual acuity of the left eye= 1/∞ pr. 1. incerta. marked hypoplasia of the iris, iridodenesis. The lens on the right is shifted upwards, on the left there are pronounced phenomena of irritation, stagnant injection of the vessels of the eyeball. The cornea is cloudy due to edema of the epithelium. The front camera is small. A small lens is inserted in the pupil area. The fundus of both eyes is normal. Intraocular pressure on the left is 45 mm Hg. On the part of the general condition, there is asthenia, slight elongation of the fingers and thickening of the terminal phalanges. What diagnosis can be made based on this clinical situation?

Answers to situational problems.

197. A child has bilateral posterior polar cataracts. In the presence of high visual acuity, no treatment is required.

198. A child with Marfan syndrome on the right has a subluxation of the lens (possibly in combination with microspherophakia), myopia of a high degree. Left microspherophakia with subluxation of the lens, an attack of secondary glaucoma.

199. The patient should be examined in a dilated pupil. If no additional data is obtained, then he has an incipient age-related cataract in both eyes. Instillation of drugs that improve metabolic processes in the lens is prescribed. If the low vision of the right eye presents sufficient difficulties, then it is possible to carry out surgical treatment-phacoemulsification with the implantation of an intraocular lens.

200. Incipient age-related cataract, myopia of the right eye. The patient should be examined in a dilated pupil. Instillation of drugs that improve metabolic processes in the lens is prescribed.

201. Incipient age-related cataract of the right eye, immature age-related cataract of the left eye. Dilate the pupil, conduct biomicroscopy and tonometry. Surgical treatment – cataract extraction with implantation of an intraocular lens in the left eye.

202. Incipient age-related cataract of the right eye, immature age-related cataract of the left eye. Surgical treatment – cataract extraction with implantation of an intraocular lens in the left eye.

203. The patient should undergo visometry, biomicroscopy, ophthalmoscopy. A possible diagnosis is cataract.

204. Immature age-related cataract of the right eye, mild hypermetropia, incipient age-related cataract of the left eye. Surgical treatment – cataract extraction with implantation of an intraocular lens in the right eye.

205. To diagnose the disease, it is necessary to perform a biomicroscopy. Most likely, the patient has a clouded lens-cataract. Cataract is a multifactorial disease. As the opacity progresses, the amount of total and especially soluble proteins decreases. The activity of lactate dehydrogenase significantly weakens and there is a shift in the isoenzyme spectrum, which indicates a slowdown in the rate of glycolysis, a decrease in tissue oxygenation, and the development of metabolic acidosis. Protein conglomerates are formed in the lens, and the content of glutathione and potassium decreases. The concentration of calcium and sodium increases. The harmonious interrelation of exchange processes is broken.

206. Intraocular correction of aphakia.

207. Traumatic cataract of the right eye. Due to cataracts, the patient does not have binocular vision. He can't work as a turner in this condition. Cataract extraction with intraocular lens implantation is shown.

208. Traumatic cataract of the right eye. Currently, the patient cannot work as a driver. Cataract extraction with intraocular lens implantation is required.

209. Traumatic cataract of the right eye. Cataract extraction with intraocular lens implantation is required.

210. Mature age-related cataract of the right eye, immature age-related cataract of the left eye. Surgical treatment – cataract extraction with implantation of an intraocular lens in the right eye.

211. Professional "fire" cataract.

212. Pseudophakia of the right eye. It does not need treatment.

213. Complicated posterior capsular diabetic cataract. The reason is diabetes mellitus.

214. Senile arch of the cornea of both eyes. Aphakia, hypertonic angiosclerosis of the right eye, mature age-related cataract of the left eye. Surgical treatment – cataract extraction with implantation of an intraocular lens in the left eye. Later-implantation of IOL in the right eye.

215. Immature nuclear cataract of both eyes. Treatment – cataract extraction with intraocular lens implantation.

216. Aphakia, hypertonic angiosclerosis of the retina of the right eye. Mature age-related cataract of the left eye. Surgical treatment – cataract extraction with implantation of an intraocular lens in the left eye. Later-implantation of IOL in the right eye.

217. Soldered corneal scar, aphakia of the right eye. Treatment-operative: iris plastic surgery with implantation of an intraocular lens in the right eye.

218. It is necessary to conduct tonometry. The patient has a dislocation of the lens in the anterior chamber, secondary glaucoma of the left eye. It needs to remove the lens from the eye in an emergency.

219. Subluxation of the lens of the right eye, dislocation of the lens in the anterior chamber of the left eye. Secondary glaucoma of both eyes. Marfan syndrome.

15. PATHOLOGY OF THE VITREOUS BODY

220. During a preventive examination in a polyclinic, a 17-year-old girl was found. Visual acuity both eyes = 1,0. Eyes calm. The front segments without any visible changes. The lenses are transparent. In the vitreous body, the connective tissue mooring is visible on the left, which extends from the optic disc anteriorly and reaches the anterior border membrane. When the eye moves, the mooring line fluctuates. The fundus of the eye without a visible pathology. Diagnosis? Therapeutic measures?

221. A one-month-old child was brought to the children's polyclinic. During the inspection of both eyes is determined by a whitish reflex in the pupil area. The lenses are reduced in size. Behind them is a white fibrous mooring, in the center it is vascularized. Elongated ciliary processes are soldered to the mooring. Diagnosis? Treatment?

222. A two-month-old baby was brought to the eye department of the children's hospital for consultation. The child was born prematurely, was in a cuvette with a high oxygen content for a long time. Currently, with ophthalmoscopy objectively. At the place of the demarcation line, between the vascularized and avascular retina, a yellowish shaft is visible, projecting above the retinal plane. The retinal vessels in front of the shaft are

sharply expanded, twisted, randomly divided, forming "brushes"at the ends. Diagnosis? Treatment?

223. A 49-year-old man with complaints of decreased vision of the right eye, a moving "spot" in front of the eye, turned to the oculist at the polyclinic. The above complaints appeared about three weeks ago. The phenomena are progressing. The onset of the disease is not associated with anything. Objectively. Visual acuity of the right eye = 0.4 (not corr.). The right eye is weakly injected in a mixed type. The front segment has no visible changes. The lens with the initial peripheral opacification. In the vitreous body, a cyst-like shimmering formation with a greenish tinge, fixed to the wall of the eye. During biomicroscopic examination, the head with suckers is clearly visible on the formation. The fundus of the eye without a visible pathology. Visual acuity of the left eye = 0.9 (not corr.). The eye is calm. Anterior segment without visible pathology. The lens with the initial peripheral opacification. The fundus was normal. Diagnosis? Treatment?

224. After a hypertensive crisis in a 49-year-old patient, the visual acuity of the right eye sharply decreased. When contacting a doctor, complaints of low vision in the right eye, "flying flakes" in front of the eye. Objectively. Right eye. Visual acuity = 0.3 (not corr.) The eye is calm. The front segment has no visible changes. In the passing light, the red reflex is not quite clear. It is not possible to see the fundus in detail. After dilating the pupil, floating opacities are visible in the passing light against the background of the red reflex. The reflex remains unclear. On the fundus, the optic disc is pale pink, with clear borders, the arteries are narrowed, the veins are full-blooded, the Sallusus is 2. Sometimes a symptom of "silver wire". A symptom of Gwist. Left eye. Visual acuity = 1.0. The eye is calm. The front segment has no visible changes. The optical medium is transparent. On the fundus, the optic disc is pale pink, with clear borders, the arteries are narrowed, the veins are full-blooded, the Sallusus is 2. Sometimes a symptom of "silver wire". A symptom of Gwist. Diagnosis? Treatment?

225. A 48-year-old patient was registered with a physician at the place of residence for diabetes mellitus for 3 years. Constantly taking gliclazide. Recently, I began to notice a deterioration in vision, the appearance of flies in front of my eyes. When examining the patient in passing light, the ophthalmologist found dark shadows on the background of the red glow of the pupil. When the patient looked in different directions, the visible opacities moved in the opposite direction. The study by the method of lateral or focal illumination showed that the anterior part of the eyeball is without pathological changes. In which part of the eyeball is there a pathological change? What diagnosis should I make?

226. When examining a patient with high-grade myopia using a slit lamp, the following changes were revealed. Visual acuity of both eyes = 0.07 with spherical glass –8.5 D = 0.9. Under the posterior capsule of the lens, there are gentle opacities. Dilution of the vitreous body and the presence of flake-like opacities in the form of wool yarn or strands of fine fibers. The threads are grayish-white in color, twisted, intersect with each other, in places have a loop-like structure. Diagnosis? Treatment?

227. An optometrist was approached by a 63-year-old patient with complaints of reduced vision in the right eye for a year and a half. Vision decreased gradually, painlessly. Objectively. Visual acuity of the right eye = 0,4 (not corresponding). Visual acuity of the left eye = 0,6 with a sphere + 1,0 D = 1,0. Previously transferred diseases does not indicate. Anterior segment of the eyes without visible pathology. When viewed with a slit lamp, small grains are visible in the vitreous body of the right eye in the form of a grayish-brown suspension that moves when the eye moves. Diagnosis? Medical procedures?

228. A 72-year-old patient with diabetes mellitus was consulted in the polyclinic. Complaints of low vision in both eyes during the last 8 years. He has been suffering from diabetes for more than 15 years. Six years ago, laser coagulation of the retina was performed, but after that, vision continued to decline. Currently objectively. Visual acuity of both eyes = 0.1 (not corresponding). Eyes are calm. Slight destruction of the pigment border of the pupil. Weakly expressed opacities under the posterior capsule of the lens. When the eye moves in the vitreous body, golden crystals move, shimmer like gold and silver spangles. On the fundus, the optic disc is pale pink, with clear borders. The veins are convoluted, of uneven caliber. Microaneurysms and solid exudates. Multiple traces of laser coagulants. Preretinal fibrosis. Diagnosis? Treatment?

229. During a preventive examination by an optometrist in a polyclinic, the following changes were detected in a 68-year-old patient. Visual acuity of both eyes = 0.3 with a sphere +2.0 D = 1.0. Eyes are calm. The front segments without any visible changes. The optical medium is transparent. During ophthalmoscopy and examination of the slit lamp in the posterior parts, an oval ring is determined. The details of the retina through this opening appear clearer than when viewed through adjacent areas of the posterior layers of the vitreous body. On the fundus, the optic nerve discs are pale pink, with clear borders. There are convoluted venules in the macular area. The arteries are narrowed. Salus I. Diagnosis? Treatment?

Answers to situational problems.

220. Remains of the hyaloid artery. No treatment is required.

221. Hyperplastic primary vitreous body. Treatment is surgical. First, the clouded lens is removed, and then the retrolental mooring is excised. If necessary, perform a partial vitrectomy.

222. Retinopathy of prematurity or retrolental fibroplasia. Treatment of retinopathy of prematurity consists in limiting the area of the avascular retina, preventing the further development and spread of neovascularizations using transcleral cryopexy, laser and photocoagulation. Vitrectomy is used for vitreal traction, and sclera filling is used for retinal detachment.

223. The cysticerci in the vitreous. Incipient age-related cataracts in both eyes. Prompt removal of the parasite is necessary.

224. Partial hemophthalmos on the right, hypertensive angiosclerosis of both eyes. In recent cases, hospitalization and bed rest with a binocular bandage, hemostatic drugs, and then resorption therapy are recommended. If the hemorrhage does not resolve in the first 7-10 days, vitrectomy is recommended.

225. Pathological changes in the vitreous body. Partial hemophthalmos should be diagnosed.

226. High-grade myopia. Complicated cataract, Filamentous destruction of the vitreous body. Treatment is not required, optical correction with contact lenses or surgical correction of myopia is possible.

227. Granular destruction of the vitreous body. It is necessary to conduct therapy aimed at resorption of opacities of the vitreous body.

228. Complicated cataract, destruction of the vitreous body with crystalline inclusions, proliferative diabetic retinopathy. Vitreal surgery is recommended.

229. Posterior vitreous detachment, hypertonic retinopathy of both eyes. Dynamic observation of the eye condition is shown.

16. PATHOLOGY OF INTRAOCULAR PRESSURE

230. A 66-year-old patient complained of blindness in the left eye and decreased vision in the right eye. The vision of both eyes decreased gradually and painlessly for 3 years. Previously, the patient did not go to the doctor and was never treated. Blindness of the left eye was discovered accidentally by closing the right eye. Objective: visual acuity of the right eye =0.6 (not corr.); visual acuity of the left eye = 0 (zero). What eye diseases are accompanied by a gradual and painless decrease in vision in old age? Which of them end in permanent blindness? What research methods should be carried out to make a correct diagnosis? What are the possibilities of returning vision to the left eye?

231. In a child of 8 months, there is lacrimation on the left and photophobia. Objectively. The eyeball is injected according to the pericorneal type. The cornea is enlarged, edematous. Limbo expanded. The front camera is deep. The iris and pupil are barely visible. The latter is slightly expanded. In the passing light, a dull red reflex. The fundus cannot be seen. The right eye is healthy. Additional diagnostic measures? The possible diagnosis? Treatment?

232. An ophthalmologist was contacted by a 58-year-old patient with complaints of intermittent morning blurring of both eyes. What studies should be conducted to the patient?

233. During the annual medical examination of a 44-year-old patient who does not make any complaints about the organ of vision, IOP measured with a 10 g Maklakov tonometer is equal to 29 mm Hg in the right eye and 23 mm Hg in the left. What is the further tactics of the doctor-ophthalmologist?

234. When examining a glaucoma patient during the next dispensary examination, it was found that the visual acuity of the right eye is 0.3, the left-1.0. The field of vision of the right eye is narrowed in the upper-nasal part to 50 ° from the fixation point, and the left-to 35 ° from the fixation point, the IOP of the right eye is 30 mm Hg, the left-27 mm Hg. The angle of the anterior chamber of both eyes is wide. Make a detailed clinical diagnosis for each eye.

235. An employee of a chemical enterprise was accidentally found to have blindness in one eye during a routine examination. Objective: vision of the right eye 0. The anterior segment is not changed on the fundus – atrophy of the optic nerve with excavation. Intraocular pressure = 40 mm Hg, the left eye is healthy. Make a detailed diagnosis.

236. A 67-year-old patient had sharp pain in her right eye and head in the morning. The vision of the right eye decreased. When you look at the light source, iridescent circles appear around it. Objectively. Visual acuity of the right eye = 0.2 (not corr.). Slight swelling of the eyelids. Arterioles and venules on the sclera are expanded and convoluted. The cornea

is somewhat swollen, translucent. The front camera is shallow, with clear moisture. The pupil is dilated, in the form of a vertical oval. The fundus is visible in the fog. Palpation T_{+3}. Visual acuity of the left eye = 0.7 (not corr.). There are initial opacities in the lens. The fundus was normal. Diagnosis? Additional research? Therapeutic measures?

237. After a half-hour stay in a steam bath, a 52-year-old man developed severe aching pains in the left side of his head with radiation to the left arm, redness of the left eye and deterioration of vision. The doctor suspected an acute attack of glaucoma of the left eye. What additional studies should be conducted to confirm the diagnosis?

238. A 60-year-old patient complained of a sharp deterioration of vision and severe pain in the left eye and the left half of the head, which appeared at night, nausea and vomiting. A few days ago, she had a difficult emotional experience. My eyes never hurt before. Objectively. Visual acuity of the right eye = 0.5 sph. +2.0 D = 1.0. TOD = 19 mm Hg. Right eye within the age norm. Visual acuity of the left eye = 0.04 (not corr.). TOS = 47 mm Hg. Left-the eye slit is narrowed, pronounced stagnant injection of the eyeball. The cornea is edematous. The front camera is very small. The pupil is dilated to 5 mm, irregular oval shape. The reflex from the fundus is dull pink. The optic disc is visible in the fog. Diagnosis? Therapeutic measures?

239. A 56-year-old patient was taken by ambulance to the emergency room of the hospital with complaints of severe aching pains in the right eye and in the right half of the head, redness of the right eye, decreased vision, nausea, vomiting, and general malaise. Blood pressure 150 and 90, the usual level of 140 and 80 mm Hg. Objectively: the right eye slit is slightly narrowed, stagnant injection of the eyeball vessels is determined, the cornea is swollen, the anterior chamber is small, the pupil is dilated, there is no reaction to light. The fundus is poorly visible. The eye is dense on palpation. Make a diagnosis. First aid.

240. The patient was diagnosed with angle-closure glaucoma. What measures can be taken at home in the event of an acute attack?

241. A 60-year-old patient was admitted to the eye department with a diagnosis of an acute attack of glaucoma. After intensive conservative therapy, IOP decreased, the eye stopped hurting. What are the further tactics in relation to this patient?

242. During your night duty, the nurse, an elderly pensioner, suddenly had an attack of sharp headaches with radiation in the left eye, which, according to the patient, she had recently seen poorly. There was vomiting, pulse slowed, blood pressure 180/100 mm Hg, which, however, is not uncommon for the patient. On external examination, a moderate narrowing of the left eye slit, redness of the left eyeball, an enlarged pupil on the left, which almost does not respond to light, is determined. The patient can only see the light from a light bulb with this eye. Given the fact that the patient suffered an acute respiratory illness on her feet a few days before this attack, try to make a presumptive diagnosis.

243. A 58-year-old patient suffers from primary open-angle glaucoma. Visual acuity of both eyes = 0.3 with spherical glass –2.0 B = 1.0. He has a periodic unstable increase in intraocular pressure, which is normalized by medication. Increased the size of the blind spot. There are paracentral scotomas in the Bjerrum zone. There are no changes on the fundus. What is the stage of glaucoma in the patient? Recommendations for treatment?

244. At the next follow-up visit to the ophthalmologist came the patient with glaucoma. The examination noted that visual acuity of both eyes with correction of –1.0, the field of vision

of the right eye have not changed, his left eye narrowing observed upper nose border to 30º from the fixation point, when gonioscopy of both eyes are clearly visible all the structures in the drainage zone of the anterior chamber angle up to a wide band of ciliary body. IOP of the right eye – 25 mm Hg, left – 29 mm Hg. Make a detailed clinical diagnosis for each eye.

245. A 67-year-old patient turned to an optometrist with complaints of decreased vision in his left eye. Visual acuity both eyes = 1,0. Eyes calm. The front segments without any visible changes. Minor destruction of the pigment border of the pupil of the left eye. The optical medium is transparent. On the fundus on the left there is a shift of the vascular bundle to the nasal side and an excavation of the optic nerve. With perimetry on the left, there is a narrowing of the field of view in the upper nasal quadrant. The possible diagnosis? Additional research? Treatment?

246. A 55-year-old patient turned to an optometrist with complaints of periodic pain in both eyes, the appearance of fog and iridescent circles when looking at a light source, especially when the head is tilted. I first noticed such sensations 1.5 years ago, but in recent months they have become more frequent. Objective: visual acuity of the right eye = 0.3 sph. +1.5 D = 0.5; TOD = 35 mm Hg; visual acuity of the left eye = 0.7 sph. +1.0 = 1.0; TOS = 34 mm Hg. Eyes are calm, there is an expansion of the anterior ciliary vessels. The front camera is small. The iris is subatrophic. The pupil 4 mm, round, sluggishly reactive to light. The reflex from the fundus is pink. On the right there is a marginal excavation with the inflection of the vessels along the edge of the disk, on the left-the shift of the vascular bundle to the nasal side. The macular area and the periphery of the retina without the disease. The field of vision of the right eye is narrowed in the upper nasal quadrant to 25°, on the left-within the normal range. Diagnosis? Therapeutic measures?

247. A 57-year-old patient went to the doctor with complaints of impaired vision and orientation in space. The above complaints appeared about six months ago, but did not cause much concern. Noted periodic passing blurring of vision. Currently, the pathological phenomena are progressing. Objectively. Visual acuity of both eyes = 0.4 sph –3.5 D = 1.0. Eyes are calm. The cornea is transparent. The front camera is of medium depth. The irises are subatrophic. The pupils are slightly dilated. The reaction to light is slowed down. In the passing light, the red reflex. On the fundus, there is an excavation of the optic nerve discs, their paling. At perimetry, a tubular field of view is determined. TOU = 38 mm Hg. Diagnosis? Additional research? Treatment?

248. After prolonged work in an inclined position, a 60-year-old woman developed pain in the left side of her head and in her left eye, nausea, vomiting, reddened left eye, and her vision deteriorated. Objectively: there is a stagnant injection of the left eye, the cornea is edematous, a small anterior chamber, the pupil is unevenly expanded in the form of an oval located vertically, the acuity of the central vision is 0.1, vision correction does not improve. IOP on the left = 56 mm Hg. Make a diagnosis.

249. After a seven-day examination for glaucoma in a hospital, a 56-year-old patient was diagnosed with the following: right eye – primary open-angle glaucoma, initial, with a moderately elevated level of intraocular pressure, left eye-healthy, presbyopia. Intraocular pressure of the right eye, according to the results of the removal of the daily curve, at the level of 26-30 mm Hg. How to evaluate the effectiveness of the treatment? What will be the essence of the dispensary observation of a patient with glaucoma?

250. A 42-year-old patient is registered with a gastroenterologist with a diagnosis of duodenal ulcer. Two years ago, the patient was diagnosed with Glaucoma. What medications are contraindicated for him?

Answers to situational problems.

230. As a rule, cataracts, glaucoma, and dystrophic changes in the retina are accompanied by a gradual and painless decrease in vision in old age. However, with cataracts and retinal dystrophy, vision does not decrease to zero. Blindness in glaucoma is irreversible. To make a correct diagnosis, it is necessary to perform biomicroscopy, perimetry, tonometry and ophthalmoscopy. With cataracts, surgical treatment is possible. Treatment of glaucoma consists in the appointment of hypotensive preparations and vascular therapy. Dystrophic diseases of the retina are also treated therapeutically. However, the restoration of vision in the last two types of pathology is impossible

231. Congenital glaucoma of the left eye. Intraocular pressure measurement, ophthalmoscopy and gonioscopy are performed. Treatment is operative.

232. It is necessary to conduct an examination for glaucoma. Study of the boundaries of the visual field with scotometry, Dynamic observation of ophthalmotonus, Thorough ophthalmoscopy.

233. It is necessary to conduct an examination for glaucoma. Study of the boundaries of the visual field with scotometry. Dynamic monitoring of ophthalmotonus. Thorough ophthalmoscopy.

234. Primary open-angle developed glaucoma of the right eye with moderately elevated intraocular pressure. Primary open-angle initial glaucoma of the left eye with moderately elevated intraocular pressure.

235. Primary open-angle terminal glaucoma of the right eye with high intraocular pressure.

236. Acute attack of angle-closure glaucoma of the right eye, incipient age-related cataract of the left eye. During the 1st hour, pilocarpine instillations are performed every 15 minutes, then every 30 minutes (2-4 times) and subsequently-every hour until the attack is stopped. At the same time, a beta-blocker is instilled into the affected eye. Inside the patient takes acetazolamide and glycerol. Hirudotherapy and distracting activities are prescribed-hot foot baths. In the absence of an effect for 1-2 hours under the control of blood pressure, sedatives, antihistamines, painkillers in the form of a lytic mixture are used. If after 24 hours the attack could not be stopped, laser or surgical iridectomy is indicated.

237. It is necessary to conduct biomicroscopy, gonioscopy, ophthalmotonometry.

238. Acute attack of angle-closure glaucoma of the left eye. During the 1st hour, pilocarpine instillations are performed every 15 minutes, then every 30 minutes (2-4 times) and subsequently-every hour until the attack is stopped. At the same time, a beta-blocker is instilled into the affected eye. Inside the patient takes acetazolamide and glycerol. Hirudotherapy and distracting activities are prescribed-hot foot baths. In the absence of an effect for 1-2 hours under the control of blood pressure, sedatives, antihistamines, painkillers in the form of a lytic mixture are used. If after 24 hours the attack could not be stopped, laser or surgical iridectomy is indicated.

239. Acute attack of angle-closure glaucoma of the left eye. During the 1st hour, pilocarpine instillations are performed every 15 minutes, then every 30 minutes (2-4 times) and subsequently-every hour until the attack is stopped. At the same time, a beta-blocker is instilled into the affected eye. Inside the patient takes acetazolamide and glycerol.

240. During the 1st hour, pilocarpine is instilled every 15 minutes, then every 30 minutes (2-4 times) and then every hour until the attack is stopped. They carry out distracting activities – hot foot baths, salt laxative. Inside diuretics.

241. Performing surgical treatment – performing basal iridectomy.

242. Acute attack of angle-closure glaucoma of the left eye.

243. The patient has primary open-angle initial glaucoma with normal intraocular pressure. Given the compensation of ophthalmotonus, the patient should use those antihypertensive drugs that he receives

244. Primary open-angle initial glaucoma with normal intraocular pressure of the right eye. Primary open-angle advanced glaucoma with moderately elevated intraocular pressure of the left eye.

245. Possible diagnosis: primary open-angle advanced glaucoma of the left eye. Conduct tonometric and tonographic studies. In the absence of compensation for ophthalmotonus, antihypertensive drugs are prescribed with control of intraocular pressure. In the absence of normalization of the level of IOP – surgical treatment.

246. Diagnosis: primary closed-angle developed glaucoma of the right eye with high intraocular pressure, primary closed-angle initial glaucoma of the left eye with high intraocular pressure, mild hypermetropia of both eyes. The selection of antihypertensive drugs is carried out. In the absence of normalization of the level of intraocular pressure – surgical treatment.

247. Diagnosis: primary open-angle distant glaucoma of both eyes with high intraocular pressure, mild myopia of both eyes. The selection of antihypertensive drugs is carried out. In the absence of normalization of the level of intraocular pressure – surgical treatment.

248. Acute attack of angle-closure glaucoma.

249. The patient should be prescribed instillation of one of the first – line drugs-latanoprost. Perform outpatient monitoring of intraocular pressure until its normalization. If necessary, you need to prescribe additional antihypertensive drugs or change the type of drug. Dispensary observation of the patient should be carried out once every three months, necessarily conducting perimetry, tonometry and ophthalmoscopy.

250. Medicines containing atropine are contraindicated for the patient.

17. DAMAGE TO THE VISUAL ORGAN

251. After a car accident, a 26-year-old patient has symmetrical subcutaneous hemorrhages of the eyelids of both eyes. Visual acuity = 0.7. The eyeballs themselves are calm. Small subconjunctival hemorrhages. The front segments of the eyes are not changed. The optical medium is transparent. On the fundus, there is a clouding of the retina in the macular region. The possible diagnosis? Additional research? Treatment?

252. In a 31-year-old patient, after an injury, the left eyeball sank into the depth of the orbit. There is a restriction of its mobility. The movements are painful. Visual acuity of both eyes = 1.0. Eyeballs without visible changes. Diagnosis? Additional research? Treatment?

253. A 19-year-old patient suffered an injury to his left eye in a fight. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = light perception with the correct light projection. Severe subcutaneous and subconjunctival hematoma. The eye slit is closed. The cornea is transparent. The anterior chamber is of medium depth, filled with blood. The iris pattern is not changed. The pupil is round, somewhat dilated. In the passing light, the reflex is not visible.

254. A 36-year-old sawmill worker was injured while working. A board flew off and hit his right eye. Objectively: the vision of the right eye is sharply reduced, there is blood in the anterior chamber. The pupil is wide, deformed, at the limb from 13 to 16 hours the separation of the iris at the root. When examined in transmitted light, the fundus reflex is visible. Diagnosis and tactics.

255. After a blunt trauma to the left eye received about a month ago, a 56-year-old patient notes periodic deterioration of the vision of this eye. When you change the position of the head, the vision then worsens, then worsens. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye, if the patient looks with his head tilted forward, = 0.6; if the head is in a straight position, the patient sees a strip in front of the eye and his visual acuity = 0.02 with a sphere +9.0 D = 0.8. The eye is calm. The cornea is transparent. The front chamber is deep, with clear moisture. When eye movement is determined by iridodenesis. The pattern and color of the iris are not changed. The pupil is round, of medium size. In the plane of the pupil, a curved line is visible in the transmitted light. The fundus was normal. A presumptive diagnosis? Additional research? Therapeutic measures?

256. A 68-year-old patient was injured during a fall, hitting the left half of her head and the brow arch on the railing of the stairs. I noticed a decrease in the vision of my left eye. After a few hours, pain in the eye and headaches appeared. My vision decreased even more. When contacting an optometrist objectively. Visual acuity of the right eye = 1.0. The eye is healthy. TOD = 20 mm Hg. Visual acuity of the left eye = 0.03 (not corr.). Subcutaneous hematoma of the brow arch and upper eyelid. The left eyeball is injected in a mixed type. The cornea is edematous, thickened, but retains transparency. The front chamber is deep, as if filled with an oil drop. The pattern and color of the iris are not changed. The pupil is round, moderately dilated. Pink reflex from the fundus. The fundus can not be considered in detail due to corneal edema. TOS = 46 mm Hg. Diagnosis? Therapeutic measures?

257. A 24-year-old patient turned to an optometrist two days after the fight. According to the patient, during the dump, he fell and received a blow to the left eye with his foot. I did not go to the doctor because of the deterioration of my general condition (headaches, vomiting). Currently objectively. Visual acuity of the right eye = 1.0. Pronounced subcutaneous hematoma of the eyelids, abrasions on the skin. The eye slit is slightly open. Subconjunctival hemorrhages. The anterior segment of the eyeball is not changed. The

optical media are transparent, the fundus is normal. Visual acuity of the left eye = light perception with an uncertain projection. Severe subcutaneous hematoma and edema of the eyelids. Abrasions on the skin. When palpating the eyelids, crepitation is determined. The eye slit is almost closed. When dilating the eyelids, an extensive subconjunctival hematoma is visible, through which a dark spot with a light round formation in the middle shines through in the upper-outer quadrant. The cornea is transparent. The front chamber is half full of blood. The pupil is drawn up to the spot. There is no reflex in the passing light. Hypotension. Diagnosis? Therapeutic measures?

258. The optometrist asked the patient 60 years old with complaints of pain and decreased vision in the right eye. From anamnesis: 3 days ago accidentally touched my eye with a tree branch, I did not go to the doctor and was not treated. Objective: Visual acuity of the right eye = 0.1 (not corr.); visual acuity of the left eye = 0.5 with spherical glass +1.0 D = 1.0. The eye slit of the right eye is sharply narrowed, a mixed injection of the eyeball is expressed. In the center of the cornea, a grayish-yellow infiltrate with a diameter of 4-5 mm with a loose surface is visible. In the anterior chamber, a whitish strip of pus is 2 mm high, the iris pattern is blurred, the pupil is narrow. Reflex from the fundus is not visible. Intraocular pressure palpation is normal. The left eye is healthy. Specify the diagnosis, plan therapeutic measures.

259. A 32-year-old driver complained of pain in his left eye, photophobia, and redness of the eye. According to him, 2 hours ago the windscreen of the car broke, and a shard hit the eye. Objectively. Visual acuity of the right eye = 1.0. Eye without pathology. Visual acuity of the left eye = 0.7 (not corresponding). On the left there is a moderate narrowing of the eye slit, photophobia, lacrimation, moderate injection of the eyeball. In the cornea at 3 o'clock, closer to the limb, a small linear wound is visible, 3-4 mm long, not reaching the deep layers. The anterior chamber is of medium depth, the pupil is round, located in the center. The reflex from the fundus is pink, the fundus is without pathology. Intraocular pressure palpation T_n. Diagnosis? Treatment?

260. A 32-year-old patient pricked her right eye with a sewing needle while sewing. Immediately felt a sharp pain, there was lacrimation and decreased vision. When contacting a doctor objectively. Visual acuity = 0.8 (not correlated). The right eyeball is weakly injected according to the pericorneal type. The cornea is transparent. At 6 o'clock, 3 mm from the limb, there is a point infiltration. The front camera is shallow, with clear moisture. The pattern and color of the iris are not changed. The pupil is round, of medium size. In the passing light, the red reflex. The fundus was normal. TOD = 13 mm Hg Visual acuity of the left eye = 1.0. The eye is healthy. Diagnosis? Treatment?

261. An ambulance doctor is called to a 6-year-old child. The boy suffered an injury to his right eye when shot from a slingshot. When viewed objectively. Severe blepharospasm. Blood protrudes from the right eye slit. I can't check my eyesight. When the eye slit is opened, a dark-colored lump is visible near the limb. The cornea is transparent. There's blood on the bottom of the anterior chamber. The front camera is deep. Diagnosis? First aid?

262. A 6-year-old child who suffered an injury to his right eye when shooting with a slingshot was taken to the hospital. Objectively. Blepharospasm. After instillation of anesthetics, an examination was performed. Visual acuity of the right eye = light perception with the correct projection. Mixed injection of the eyeball. The cornea is smooth, transparent and shiny. On the sclera near the limb, a scalped conjunctival wound is up to 2 cm wide. In the wound of the sclera, a fallen vascular membrane is visible. The anterior chamber is deep, filled with blood. The pupil is oval, drawn up to the wound. In the passing light, the reflex

is not visible. Visual acuity of the left eye = 1.0. The eye is healthy. Diagnostic measures? Diagnosis? Treatment?

263. A 45-year-old worker complains of reduced vision in his left eye during the last 3 months. The deterioration of vision is not associated with anything. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.001 (not corresponding). The eye is calm. In the cornea at 5 o'clock near the limb, a 5 mm long scar is visible, respectively, a small defect in the iris – The front camera is of medium depth, the moisture is transparent. The iris is slightly darker than on the right, the pupil is round 4 mm, weakly reacts to light. The lens is uniformly cloudy, gray, with brownish deposits under the anterior capsule. There is no reflex from the fundus. Diagnosis? Additional research? Treatment?

264. A 46-year-old electrician turned to an optometrist with complaints of reduced vision of the left eye that was injured about two months ago. A piece of wire bounced off his eye. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.06 (not corr.). The eyeball is moderately injected according to the mixed type. The cornea is smooth, shiny and transparent. The moisture of the anterior chamber is transparent, but opalescent, single precipitates on the posterior surface of the cornea. The pattern of the iris is somewhat blurred, it is changed in color. The pupil is round and narrow. After its expansion, yellow-green opacities in the form of a flowering sunflower are visible in the lens. The reflex from the fundus is dull. Details of the fundus are not visible. Diagnosis? Additional research? Treatment?

265. A 35-year-old handyman went to the clinic to see an optometrist. Complaints: visual impairment of the right eye. Anamnesis: it was found out that a year ago, while working, something got into this eye, but he did not go to the doctors. Objectively: the vision of the right eye is 0.3, there is no correction. The cornea is transparent. In the area of the lens, a bluish opacity is visible in the form of a ring with rays radiating from it. Diagnosis and additional studies confirming the diagnosis.

266. A 29-year-old patient has been treated in the eye department for a penetrating wound to the right eye for more than two weeks. Currently, he complains of pain and redness of the left, healthy eye. Objectively. Visual acuity of the right eye = light perception with the correct projection. The eyeball is moderately injected in a mixed type. On the cornea, a sutured wound of a linear shape with a length of up to 6 mm. There are multiple precipitates on the posterior surface of the cornea. The front camera is small. The pattern and color of the iris are changed, bombage. Circular posterior synechia. The pupil is round, slightly dilated. In the plane of the pupil, the lens is unevenly clouded. The subject parts of the eye are not visible. TOD = 13 mm Hg. Visual acuity of the left eye = 0.8 (not corr.). Pericorneal injection of the eyeball. The cornea is transparent, with single precipitates on its posterior surface. Subject parts of the eye without visible pathology. TOS = 18 mm Hg. Diagnosis? Therapeutic measures?

267. A 48-year-old machine shop worker received a penetrating wound to the cornea of his right eye, but did not see an optometrist until a week after the injury. Objectively: pronounced edema of the eyelids of the right eye, conjunctival edema, exophthalmos, cornea purulent infiltrated, pus in the anterior chamber, fundus reflex yellowish-green. Diagnosis? Treatment? What are the possible outcomes?

268. A 53-year-old patient received a chemical burn of both eyes with lime while performing painting work at home. I washed my eyes with running water. I came to the optometrist 2

hours after the injury. Objectively. Visual acuity of the right eye = 0.2 (not corr.), left eye = 0.1. Blepharospasm, edema and hyperemia of the eyelids. When the upper eyelids are turned out, grains of lime are visible on the tarsal part of them. The conjunctiva of the lower arches is somewhat ischemic, eroded. Mixed injection of the eyeball. The corneal epithelium is exfoliated almost over the entire surface. The cornea is diffusely stained with fluorescein. The front camera is of medium depth with a transparent moisture. Subject departments without visible changes. Diagnosis? First aid? Therapeutic measures?

269. A 38-year-old welder turned to an optometrist for help with complaints of a foreign body feeling, pain in the eyes, lacrimation, photophobia. The day before, I was welding pipes without protective glasses. Objectively. Visual acuity of the right eye = 0.7 (not corr.). Visual acuity of the left eye = 0.6 (not corr.). The conjunctiva of the eyes is injected according to the mixed type. On the surface of the cornea, small vesicular swellings of the epithelium. The subject parts of the eyes are not changed. Diagnosis? First aid? Treatment?

270. A factory worker was welding pipes, removing protective glasses while working. By the evening, there was a sharp photophobia, lacrimation. I went to see an eye doctor. Objectively: hyperemia of both eyes, the cornea is transparent, but when stained with fluorescein, small point erosions are detected. Diagnosis, first aid, prevention.

271. Young man, 18 years old. Complaints: sharp photophobia, watery eyes, pain in the eyes. Anamnesis: it was revealed that before that, during the day, I skied on a bright sunny day in the snow-covered mountains. Objectively: The eye slits are covered, sharp hyperemia and conjunctival chemosis. When staining the cornea, small epithelial defects are detected. Make a diagnosis. How to help a young person?

272. A 50-year-old patient complained of impaired vision in his right eye. From the anamnesis, it was found out that when he worked in the workshop, he injured his eye with a piece of metal. Objectively: visual acuity = 0.6 (not corresponding). Cornea intact, deep anterior chamber, linear wound and hemorrhage in the conjunctiva of the sclera, hypotension. The left eye is healthy. Diagnosis? Therapeutic measures?

273. The patient received a penetrating wound to the left eye 3 weeks ago. The vision of this eye was almost immediately lost: visual acuity = 0. During all this time, the phenomena of sluggish iridocyclitis were observed on the injured eye. Currently, photophobia, pericorneal injection, and precipitates have appeared in the second eye. What diagnosis can be assumed. Therapeutic tactics.

274. A nine-year-old girl was taken to the emergency room of the hospital with fresh burns to her eyes and face from the flames of gasoline. The eyelashes and eyebrows are burned, the skin of the face is hyperemic, with separate blisters and necrotic areas on the cheeks and eyelids. You need to examine the eyeballs to determine the severity of the lesion. What medication will you have to resort to first?

Answers to situational problems.

251. Possible diagnosis: Berlinovskoe opacity of the retina of both eyes. A fracture of the skull base? X-ray of the skull is performed in two projections, and the patient is referred to a neurologist and a neurosurgeon.

252. Fracture of the walls of the left orbit. Perform radiography of the skull in two projections. When mixing fragments-plastic surgery on the walls of the orbit.

253. Blunt trauma, subcutaneous hematoma of the eyelids, subconjunctival hemorrhage, traumatic hyphema, hemophthalmos on the left. X-ray of the skull is performed in two projections, ultrasound examination of the left eyeball. In the first days, hemostatic drugs are prescribed, then resorption therapy with the use of enzymes is carried out. In the absence of dynamics-paracentesis of the cornea with washing out of the hyphema, vitrectomy.

254. Blunt trauma, hyphema, iridodialysis of the right eye. Given the sharp decrease in vision of the eye, a thorough ophthalmoscopy is necessary to exclude retinal pathology. Hemostatic and resorption therapy, iris plastic surgery are indicated.

255. Subluxation of the lens of the left eye. Biomicroscopy with dilated pupil, ultrasound examination of the left eyeball is performed. Treatment – extraction of the lens with implantation of an intraocular lens.

256. Blunt trauma, subcutaneous hematoma of the brow arch and upper eyelid, dislocation of the lens in the anterior chamber, secondary glaucoma of the left eye. The patient is urgently removed from the dislocated lens from the anterior chamber with the implantation of an intraocular lens.

257. Blunt trauma, subcutaneous hematoma of the eyelids, subconjunctival hemorrhages of the right eye. Blunt trauma, subcutaneous hematoma of the eyelids, fracture of the orbital walls, subconjunctival hematoma, rupture of the sclera with loss of membranes and dislocation of the lens under the conjunctiva, hyphema of the left eye. X-ray of the skull is performed in two projections, ultrasound examination of the left eyeball. The dislocated lens is removed with suturing of the sclera wound. In the presence of a fracture of the eye socket with a displacement of fragments – plastic surgery on the eye socket.

258. Traumatic keratitis, hypopion of the right eye. Mild hypermetropia of the left eye. Antibacterial therapy of keratitis using instillations, ointment applications, subconjunctival and parenteral administration of antibiotics is shown.

259. Non-penetrating incised wound of the cornea of the left eye. Prescribed antibiotics in the form of drops and ointments, keramoprotektion.

260. Penetrating wound of the cornea of the right eye. X-ray of the right orbit, ultrasound of the right eye are performed. Administered tetanus toxoid. Prescribe antibacterial drugs in the form of drops and ointments.

261. Penetrating corneoscleral wound of the right eye with loss of membranes, hyphema of the right eye. The ambulance doctor instills disinfectant drops into the eye, performs analgesia, applies a binocular bandage and delivers the patient to the hospital.

262. Penetrating scleral wound of the right eye with loss of membranes, hyphema, hemophthalmus on the right. X-ray of the eye socket is performed in two projections, ultrasound examination of the eye. In the presence of an intraocular foreign body, its X-ray localization is performed according to Comberg-Baltin. Perform primary surgical treatment of the wound, which consists in setting the fallen membranes and suturing the sclera and conjunctiva. In the presence of an intraocular foreign body, it is removed by

one of the methods. Administered tetanus toxoid. Prescribe antibacterial, anti-inflammatory and desensitizing therapy.

263. *Corneal scar, siderosis? of the left eye. To clarify the diagnosis, an X-ray and ultrasound examination of the eye is performed. In the case of intraocular foreign bodies produce it dialerline removal. After the initial surgical treatment of the wound, antibiotics, corticosteroids, non – steroidal anti-inflammatory drugs, physiotherapy, if necessary-mydriatics, enzymes, angioprotectors, antihistamines are prescribed.*

264. *Chalcosis of the left eye? To clarify the diagnosis, an X-ray and ultrasound examination of the eye is performed. In the case of intraocular foreign bodies produce it dialerline removal. After the initial surgical treatment of the wound, antibiotics, corticosteroids, non – steroidal anti-inflammatory drugs, physiotherapy, if necessary-mydriatics, enzymes, angioprotectors, antihistamines are prescribed.*

265. *Chalcosis of the right eye? To clarify the diagnosis, an X-ray and ultrasound examination of the eye is performed.*

266. *Penetrating wound, plastic uveitis of the right eye. Sympathetic inflammation of the left eye. The diagnosis of sympathetic iridocyclitis can be facilitated by the reaction of cellular and humoral immunity of the patient's blood serum with a lens antigen and an antigen from the vascular membrane. During this period, it is necessary to conduct vigorous anti-inflammatory therapy. Assign corticosteroids inside, in drops and subconjunctivally, injections of antibiotics intramuscularly and under the conjunctiva, sulfonamides inside, hyposensitizing agents, cytostatics and immunocorrective drugs. Locally-instillation of mydriatics. Only in cases where treatment does not have the proper effect, fibrinous-plastic iridocyclitis becomes prolonged and functions are completely lost, the injured eye must be enucleated.*

267. *Posttraumatic endophthalmitis. The prognosis for endophthalmitis is always serious. The administration of antibiotics and antistaphylococcal gamma-globulin under the conjunctiva, retrobulbar, in the perichoroidal space is shown. Intravenous administration of broad-spectrum antibiotics is necessary. Vitrectomy with the introduction of antibiotics into the eye cavity is highly effective. If vigorous anti-inflammatory treatment does not work, the eye should be enucleated.*

268. *Alkaline chemical burn of the second degree of both eyes. First aid - remove lime particles, wash the conjunctival sac with water, disinfectant solutions or a weak acidic solution. In the eye, any disinfectant solutions are instilled and ointments are laid. Under the conjunctiva and arches, hemodesis is administered daily for 6-7 days. The subconjunctival administration of the "cocktail", which includes autoserum, antibiotics, vasodilators and anticoagulants, is also indicated. A good effect in severe burns is observed as a result of the use of serum burn convalescents by subconjunctival and intravenous injections.*

269. *Electronically. Treatment consists of instillation of a solution of dicaine, 2% solution of novocaine and sterile vaseline oil, as well as 30% solution of sulfacyl sodium. Cold lotions are useful.*

270. *Electronically. Treatment consists of instillation of a solution of dicaine, 2% solution of novocaine and sterile vaseline oil, as well as 30% solution of sulfacyl sodium. Cold lotions are useful. Prevention-safety glasses.*

271. Electronically. Treatment consists of instillation of a solution of dicaine, 2% solution of novocaine and sterile vaseline oil, as well as 30% solution of sulfacyl sodium. Cold lotions are useful. Prevention-safety glasses.

272. Penetrating wound of the sclera of the right eye. X-ray of the eye socket is performed in two projections, ultrasound examination of the eye. In the presence of an intraocular foreign body, its X-ray localization is performed according to Comberg-Baltin. Perform primary surgical treatment of the wound, which consists in suturing the sclera and conjunctiva. In the presence of an intraocular foreign body, it is removed by one of the methods. Administered tetanus toxoid. Prescribe Antibacterial, anti-inflammatory and desensitizing therapy.

273. Most likely, the patient has symptoms of sympathetic inflammation. It is necessary to strengthen anti-inflammatory treatment. If there is no effect, remove the injured eye.

274. Instillation of dicaine.

18. PATHOLOGY OF THE OCULOMOTOR SYSTEM

275. The parents of a five-year-old boy complained about the presence of strabismus in the eye office of a children's polyclinic. According to the parents, the child mows one or the other eye. During an objective examination, it was found that the visual acuity of both eyes in the child is 0.9. When closing the eyes, there are no adjustment movements. In the study of the four-point test, the breakdown with a miss and the breakdown with a pencil – no violations of binocular vision were detected. Diagnosis? Treatment?

276. An appointment to the optometrist in the clinic was approached by a young man of 21 years with complaints of recurrent strabismus. He notes that when he thinks or does not pay attention to his vision, one of his eyes deviates. As soon as he "comes to himself", his eyes become even and the double vision that appeared at the beginning disappears. When conducting tests for the presence of binocular vision, no violations were detected. What are the tests for the study of binocular vision can be delivered? Diagnosis? Treatment?

277. The parents of a 4-year-old child turned to the oculist of the polyclinic. They came with a boy whose right eyeball is deflected inwards. Parents note that at the birth of the child, the position of the eyes was completely normal, but, as he grew older, they began to observe a periodic deviation of the right eyeball inside. This was especially noticeable when the child was irritated. In consultation with neurologist (parents took it as a neurological pathology) any disease of the nervous system have not been identified. It is recommended to consult an ophthalmologist. The optometrist prescribed cycloplegia to the patient, after which he performed refractometric studies. On the right, the child has hypermetropia of 5.0 D, on the left – 3.0 D. When the appropriate correction was prescribed, the strabismus disappeared. What kind of strabismus does a child have? How can you make sure that he has binocular vision?

278. To the optometrist and asked parents of the child 6 years with complaints of the presence of strabismus. We noticed the disease about a year ago. They didn't go to the doctor. Objectively. Visual acuity of the right eye = 0.1 (not corr.). The eyeball is deflected inwards. Strabismus is permanent. The scope of eye movements is complete. There is no diplopia. Eyeball without visible pathological changes. Visual acuity of the left eye = 0.4

sph. +1.5 D = 0.7. The eye is healthy. Full mobility. Diagnosis? Additional research? Therapeutic measures?

279. A 5-year-old child has a converging strabismus on the left. Strabismus is permanent. Visual acuity of the right eye = 0.5 with a sphere +1.75 dptr. = 1.0 The eye is healthy. Visual acuity of the left eye = 0.1 (not corr.). Hypermetropia up to 3.0 D is determined refractometrically, but vision correction with optical lenses does not give a result. With the right eye closed, the left eyeball, although it corrects its position, does not reach the center, remaining somewhat displaced inside. There were no visible pathological changes in the left eye. Diagnosis? Additional research? Treatment?

280. When examining a 9-year-old child with friendly strabismus, it was objectively revealed that the visual acuity of the right eye = 0.2 with a sphere of +3.0 D = 0.4; the visual acuity of the left eye = 0.1 with a sphere of +3.5 D = 0.4. What is the reason for low vision? What therapeutic measures are necessary?

281. During practical classes in ophthalmology with residents, the assistant showed them two children. Both have exactly the same converging strabismus on the right. It is necessary to make a differential diagnosis between friendly and paralytic strabismus. How do I do this?

282. A 7-year-old child suffers from a friendly converging strabismus on the right. Regarding strabismus and amblyopia, the child repeatedly underwent courses of orthoptic and pleoptic treatment, which practically did not give a tangible result. Corrected visual acuity of both eyes increased by 0.1. Strabismus remained. What are the doctor's next steps?

283. After a car accident, a 39-year-old patient has a converging strabismus on the left. Complaints of double vision. The patient takes a forced position of the head. Objectively. Visual acuity of the right eye = 1.0. The volume of movements is full, the eye is healthy. Visual acuity of the left eye = 1.0. The eyeball is deflected inwards. The amount of movement to the outside is sharply limited. With the right eye closed, the left eye is set almost straight. The eye is calm. Anterior segment without visible pathology. The optical medium is transparent. The fundus was normal. Diagnosis? Treatment?

284. A 31-year-old patient complains of low vision in both eyes. He can't see well since childhood. I didn't use glasses – they don't fit. I turned to the optometrist repeatedly, but no one could help. Objectively. Visual acuity of both eyes = 0.2 (not corr.). The adnexal apparatus of the eyes is normal. The eyeballs are calm. Anterior segments without visible pathology. The optical medium is transparent. On the fundus, the optic nerve discs are pale, somewhat reduced in size. No other pathology is visible. Jerky horizontal rocking motion of the eye. Diagnosis? Additional research? Treatment?

Answers to situational problems.

275. Imaginary strabismus. No treatment is required.

276. Research using a four-point color test. Sokolov's experience. A miss test. A test with pressure on one eye. Bagolini test. Test with reading with a pencil. Sample with prismatic glass. Heterophoria. No treatment is required.

277. Convergent friendly accommodative strabismus on the right. For the study of binocular vision, you can put samples: a study using a four-point color test, the Sokolov experiment,

a miss test, a test with pressure on one eye, the Bagolini test, a test with reading with a pencil, a test with prismatic glass.

278. Convergent friendly strabismus, amblyopia? on the right. Hypermetropia of the left eye. Conducting a study of the refraction of both eyes in terms of cycloplegia. Measure the angle of strabismus. Assign an adequate correction. Orthoptic and pleoptic treatment is performed. With the preservation of strabismus – surgical treatment.

279. The child has convergent friendly strabismus, amblyopia on the left. Mild hypermetropia of the right eye. Conducting a study of the refraction of both eyes in terms of cycloplegia. Measure the angle of strabismus. Assign an adequate correction. Orthoptic and pleoptic treatment is performed. With the preservation of strabismus – surgical treatment.

280. The child has amblyopia of both eyes. It is necessary to conduct pleoptic treatment.

281. The main signs of friendly strabismus are: the movement of the eyes in full; the angle of the secondary deviation is equal to the primary; the absence of double vision. The main signs of paralytic strabismus are: the absence or restriction of mobility of the eyeball towards the affected muscle; inequality of the primary and secondary angles of deviation; the presence of double vision.

282. It is necessary to resort to surgical treatment without stopping orthoptic and pleoptic treatment.

283. Converging paralytic strabismus on the left. They are treated by a neurologist. In the absence of an effect – surgical treatment.

284. Diagnosis: Hypoplasia of the optic nerve discs, nystagmus, amblyopia. The study of refraction, if possible optical correction, is shown. There is no treatment for hypoplasia.

19. DISEASES OF THE EYE SOCKET

285. After suffering a cold, a 27-year-old patient suddenly developed pain when moving his eyes. Objectively. Visual acuity of both eyes = 1.0. There is a small exophthalmos, a slight restriction of the mobility of the eyeballs. During extreme abduction of the eye – diplopia. Slight swelling of the eyelids and conjunctiva. Minor mixed injection of the eyeballs. There is no discharge from the conjunctival sacs. The front segments without any visible changes. The optical medium is transparent. The fundus was normal. Diagnosis? Additional research? Treatment?

286. A 35-year-old woman came to see an optometrist. Complaints of general weakness, fever up to 38° C, headache; swelling, redness and pain in the eyelid area and when moving the right eye. These complaints appeared 2 days ago on the next day after treatment at the dentist for periodontitis. Objectively. Visual acuity of the right eye = 0.8 (not corr.). Visual acuity of the left eye = 1.0. The eyelids of the right eye are closed, swollen, hyperemic, painful on palpation, when they are opened, pronounced conjunctival chemosis is visible, exophthalmos, mobility of the right eye is limited. Parotid lymph nodes on the right are enlarged. The left eye is healthy. In the study of blood – leukocytosis, increased ESR, neutropenia, shift in the leukocyte formula. Diagnosis? First aid? What kind of expert advice? Additional methods of investigation? Treatment?

287. A 47-year-old patient went to the doctor with complaints of severe headache, high fever, chills. All of the above complaints appeared two days ago. He was treated at home, taking anti-grippin. Attention is drawn to the sharp swelling and hyperemia of the eyelids of the right eye. The conjunctiva of the eyeball is swollen, pinched in the eye slit. There is no mobility of the eyeball. There is an increase in regional lymph nodes. Diagnosis? Actions of the general practitioner? Additional research by an ophthalmologist? Therapeutic measures?

288. A 5-year-old boy. After suffering from ARVI for 2 weeks, there was a non-abundant mucopurulent discharge from the nose, difficulty breathing through the nose, headaches, decreased appetite. Two days ago, during a walk, I got my feet wet; after that, headaches increased, the discharge from the nose took a bloody-purulent appearance, chills appeared, the temperature rose to 39.6°, swelling and redness of the eyelids on the right side appeared and began to grow rapidly. When pressing on the area of the lacrimal sac, there is no discharge from the lacrimal points. The right eye slit is closed. When it is opened, pronounced conjunctival chemosis is visible, exophthalmos, mobility of the right eye is limited, attempts to move are painful. In the study of blood – leukocytosis, increased ESR. On the R-gram, there is a decrease in the transparency of the paranasal sinuses. Diagnosis? First aid? What specialists should participate in the study of the patient? What tests should an ophthalmologist perform? Which department should the child be sent to? Treatment?

289. A 46-year-old patient went to see an ophthalmologist with complaints of protrusion of the left eye. I noticed this phenomenon about two months ago. The protrusion gradually increases. When the patient was wary of the tumor process, she turned to the doctor. An objective study revealed. In addition to ocular symptoms, the patient has hand tremor, tachycardia, weight loss, and sleep disorders. Visual acuity of both eyes = 1.0. The eye slit of the left eye is sharply expanded. Rare blinking. The volume of movements of the extraocular muscles is not disturbed, the fundus is normal. Exophthalmos of 2 mm. The reposition of the eyeball is free. What additional research needs to be done? A presumptive diagnosis? Treatment?

290. A 26-year-old patient was brought to the oculist by bilateral bug-eye. Objectively. Visual acuity of both eyes = 1.0. There is an increase in the exposure of the sclera surface (Dalrymple's symptom), lagging of the upper eyelid from the upper edge of the pupil when looking down (Grefe's symptom), rare blinking (Stehlwag's symptom) and difficulty in convergence (Moebius's symptom). Diagnosis? Additional research? Therapeutic measures?

291. A 27-year-old patient turned to an optometrist with complaints of bug-eye on the right. This phenomenon appeared a few months ago. Other complaints of exophthalmos are not accompanied. The patient notes periodic improvement and deterioration of the condition. Objectively. Visual acuity of both eyes = 1.0. Exophthalmometry: OD – 23 mm, OS – 17 mm. The eye slits of both eyes are closed, but not symmetrical. The eyeball on the right is quite easy to reposition into the orbit. Slight swelling of the conjunctiva of the arches. The eye is calm. The scope of movements of the eyeball is complete. An eyeball with no apparent pathology. The left eye is healthy. Diagnosis? Additional research? Therapeutic measures?

292. For a consultation with the optometrist was sent to the patient 22. Complaints about the lack of vision in the left eye, the standing of this eye, noise in the head. From the anamnesis, it was possible to establish that a year ago he received a skull injury. Objectively: visual

acuity of the right eye = 1.0; visual acuity of the left eye = 0. The eyelids on the left are not changed, the eye will stand 2 mm out of the orbit, the exophthalmos is straight. During auscultation, a blowing noise in the orbit is heard, synchronous with the pulse. When the common carotid artery is compressed on the affected side, the noise decreases sharply. Diagnosis? Treatment?

293. A 37-year-old patient complained of minor pain in the right eye, swelling of the eyelids, and sometimes double vision. From the anamnesis, it was found out that in the summer, while resting on the lake, the patient was bitten by an insect in the upper eyelid. After that, there was local inflammation, edema, which quickly disappeared. The complaints appeared at the end of November. Currently objectively. Visual acuity of both eyes = 1.0. The upper eyelid of the right eye is swollen, hyperemic. Minor exophthalmos that can be repositioned. The eyeball is injected. Whitish mobile filaments are sometimes visible under the conjunctiva. In the blood test, pronounced eosinophilia. The patient notes periodic chills with an increase in temperature, which is attributed to colds. The possible diagnosis? Treatment?

294. An ophthalmologist was contacted by a 28-year-old woman with complaints of protrusion of the left eyeball. From anamnesis it is found out that exophthalmos, at first insignificant, but gradually increasing, arose 3 years ago. Objectively. Visual acuity of both eyes = 1.0. The right eye is healthy. The left eyeball is exophthalmic by 7 mm. Repositioning it is difficult. Moderate conjunctival injection. The eyeball itself is without visible pathology. After conducting ultrasound diagnostics and computed tomography, it was found out that there is a two-chamber bubble in the orbit, located behind the eyeball. The possible diagnosis? Treatment?

Answers to situational problems.

285. The patient has tenonitis. General and local anti-inflammatory treatment. Dry heat.

286. Metastatic odontogenic phlegmon of the orbit of the right eye. General antibacterial, anti-inflammatory and desensitizing treatment. Consultation of ENT, dentist. Radiography of the paranasal sinuses and eye sockets. Opening and drainage of the orbit against the background of antibiotic therapy and antiinflammatory treatment. Rehabilitation of the odontogenic focus of infection.

287. Phlegmon of the orbit on the right. The general practitioner introduces broad-spectrum antibiotics and immediately sends the patient to an ophthalmic hospital. In the ophthalmological hospital, X-rays of the skull are performed in two projections, if necessary, the patient is consulted with an otorhinolaryngologist, dentist, neurologist. In the first hours of the disease, intravenous administration of broad-spectrum antibiotics is indicated. In case of sudden deterioration of vision or the appearance of signs of abscessing, urgent surgical intervention with drainage of the abscess cavity is indicated. In the presence of a pathological process in the paranasal sinuses, their drainage is necessary.

288. Acute pansinusitis, reactive edema of the eyelids of the left eye. General antibacterial, anti-inflammatory and desensitizing treatment, consultation of ENT, ophthalmologist (acuity, field of vision, fundus, exclude phlegmon of the orbit and involvement of the lacrimal sac in the inflammatory process). Refer to the ENT department of the hospital, surgical

treatment – opening of the paranasal sinuses, opening and drainage of the orbit-against the background of antibiotic therapy and anti-inflammatory treatment.

289. Computed tomography and nuclear magnetic resonance. Thyrotoxic exophthalmos. Examination and treatment by an endocrinologist.

290. Thyrotoxicosis. The patient is treated and consulted by an endocrinologist.

291. Diagnosis: endocrine exophthalmos on the right. Treatment of endocrine ophthalmopathy is causal, symptomatic and restorative. Causal corticosteroid therapy is prescribed for subcompensation and decompensation of the process. Steroid therapy can be combined with external irradiation of the orbits. Symptomatic treatment consists in prescribing the patient antibacterial drops, artificial tears, sunglasses and necessarily eye ointment at night. Reconstructive surgical treatment is prescribed for endocrine myopathy in order to improve the functions of the affected extraocular muscles or with a sharp retraction of the upper eyelid to restore its normal position.

292. Pulsating exophthalmus on the left. Ligation of the carotid artery on the left.

293. Filariasis of the orbit. Treatment is surgical. Removing the worm. Drug therapy with the use of anthelmintic agents is possible. However, the massive death of filariae can be accompanied by allergic reactions.

294. Possible echinococcosis of the orbit. Surgical treatment-orbitotomy and cyst extraction, preferably without breaking the capsule.

20. PROFESSIONAL PATHOLOGY OF EYE

295. A 43-year-old smelter worker complained of redness of the eyes and decreased vision to the medical and sanitary unit. Objectively, there is redness and thickening of the eyelids, an injection of the conjunctiva. Visual acuity of both eyes = 0.7 (not corr.). During biomicroscopy, opacities are detected in the posterior cortical layer of the lens. The fundus of the eye without a visible pathology. Make a diagnosis. What can be associated with pathology?

296. After working with electric welding in the evening, a 47-year-old patient felt a feeling of a foreign body in both eyes in the evening, lacrimation and photophobia appeared. Gradually, the pain increased, and blepharospasm appeared. When examined by an ophthalmologist, edema and hyperemia of the eyelids of both eyes, conjunctival edema, mixed injection of the eyeballs were found. The conjunctiva from the inside crawls on the cornea in the form of a tongue. The pupil is narrow. The subject departments cannot be considered in detail. A presumptive diagnosis? Treatment?

297. An ophthalmologist was contacted by a 32-year-old laser equipment adjuster with complaints of reduced vision in the left eye. According to the patient, he accidentally "grabbed an eye" with a laser beam. Objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye = 0.07 (not corr.). The eye is calm. The anterior segment of the eye is not changed. The optical medium is transparent. Paramacular retinal hemorrhage is detected on the fundus. Diagnosis? Treatment?

298. A 63-year-old patient who had worked in the mining industry for many years complained of changes in the skin of the eyelids and lacrimation. The patient was referred to an ophthalmologist. The latter managed to find out that the patient's work was related to the extraction of uranium ore. Objectively. Visual acuity of both eyes = 0.7 (not corr.). The skin of the eyelids is thinned and depigmented. The edge of the eyelid is also thinned, smoothed. Baldness of the edges of the eyelids. They are somewhat turned towards the eyeball. Eyes calm. The front segments without any visible changes. In the lens, the accumulation of point opacities in the subcapsular layer in the region of the posterior pole of the lens. The fundus of the eye without visible changes. Diagnosis? Recommendations for further management of the patient.

299. A 55-year-old patient, an X-ray technician. Complaints of reduced vision in the distance and at close range. Development of the disease: she has been ill for 6 months, has been working in the X-ray room for 6 years. Objectively, the vision of both eyes 0.1 is not corrected. In the area of the posterior plus of the lens of both eyes, there is a discoid opacity. There are separate vacuoles under the anterior capsule of the lens. Diagnosis, treatment and causes of the disease.

300. A 58-year-old dump truck driver turned to an ophthalmologist with complaints of visual impairment at close range. The doctor picked up his reading glasses in 3.0 D, in which the patient seemed to see well. But, however, after a while the patient turned again with the same complaints. Objectively, when examining the conjunctiva, its hyperemia, tortuosity and ampoule-like expansion of veins, microaneurysms and hemorrhages are visible. Similar phenomena were found in the retina. Optic nerve discs without visible changes. The fields of view are narrowed. Expanded blind spots. The intended diagnosis?

301. A 44-year-old patient was sent for consultation with an ophthalmologist about granosan poisoning during agricultural work. Objectively. Visual acuity of both eyes = 0.9 (not corr.). The patient has trembling of the eyelids, violation of the size, shape and reaction of the pupils, diplopia. The cornea and lens are gray-brown in color. The tactile sensitivity of the cornea is reduced. On the surface of the cornea there is a colored ring located concentrically with respect to the limb. Metallic gray-brown reflex from the anterior surface of the lens. Spot opacities of the anterior cortical layers of the lens. The fundus was normal. Diagnosis? Treatment? Determine the patient's ability to work.

302. At an ophthalmologist's appointment, a 39-year-old patient who has been working at a gas station for a long time. She was forced to go to the doctor by periodic loss of vision in both eyes. The patient does not indicate any previous illnesses. Objectively. Visual acuity of both eyes = 0.7 (not corresponding). Eyes are calm. Anterior segments without visible pathology. The optical medium is transparent. On the fundus, retinal edema is detected on both sides, especially in the peripapillary zone and in the central part. The study of the visual field revealed an expansion of the physiological scotoma. Intraocular pressure on both sides 29 mm Hg. Diagnosis? Prevention of the causes of the disease? Treatment?

303. After working in the field, a 32-year-old agricultural worker has copious lacrimation, pronounced miosis and a sluggish reaction of the pupils to light. The patient complains of reduced vision in the distance, pain in the eyes and orbits, headache. Intraocular pressure is reduced. Small nystagmus, diplopia. A presumptive diagnosis?

304. The district ophthalmologist has a patient whose life is almost constantly connected with the use of alcohol. The last time he was brought to the reception by neighbors, as, according to them, he was blind, and can not move himself. The patient worked for a long time in the

production of synthetic alcohols, not denying himself their use. About 6 years ago, he began to complain of a decrease in the vision of both eyes. Vision first decreased quite sharply, but then relatively recovered. Reduced vision was associated with the use of methyl alcohol. Currently objectively. Visual acuity of both eyes = 0. The eyes are calm, the anterior segments are not changed. The pupils are wide, there is no reaction to light. In the plane of the pupils partially clouded lenses. On the fundus on both sides of the optic nerve discs are pale, with indistinct borders. The vessels are narrowed. Diagnosis? Treatment?

Answers to situational problems.

295. Blepharoconjunctivitis, complicated cataract of both eyes. Pathology may be associated with exposure to infrared radiation on the eye.

296. Electronically. Pterygium of both eyes. Treatment of electronically is installations of tetracaine, 2% novocaine solution and sterile vaseline oil and 30% solution sulfatsil-sodium. Cold lotions are useful. Pterygium requires surgical treatment.

297. Retinal hemorrhage due to the effect of laser radiation on the left eye. It is recommended that a maximum of relaxation and rest for the eyes. Hemostatic and vasoconstrictive agents may be prescribed. Emoxipin eye drops strengthen the blood vessels of the eyes and protect them from excessive light. It is recommended to take vitamins C and K, which strengthen the walls of blood vessels and improve blood clotting.

298. Atrophy of the skin of the eyelids, madarosis, inversion of the eyelids. Complicated cataract of both eyes. Defeats are related to work. The patient needs a change of profession and dynamic supervision.

299. Complicated cataract of both eyes. Surgical treatment is indicated. The causes of cataracts are exposure to X-rays.

300. Existing eye changes may indicate a manifestation of vibration disease. Examination and treatment by a professional pathologist is recommended. Change of profession.

301. Ophthalmoergonomics. The main efforts are aimed at removing mercury from its depot, antitoxic and stimulating therapy is prescribed. Local and general treatment with 5% unitiol solution is indicated. The question of working capacity and a break in working with mercury in the first and second stages of mercurialism, as well as in exacerbations of intoxication, is decided by the VCC and MSEC.

302. Ophthalmosaurus – defeat the eye of the lead compounds. In the prevention of poisoning, it is most important to prevent the effect of tetraethyl lead on the body. The working day in contact with tetraethyl lead should be shortened. Additional days off are allowed. Reducing the visual acuity in one eye to 0.1 or both to less than 0.5 is considered a contraindication to working with tetraethyl lead. Persons in contact with tetraethyl lead are subject to mandatory observation by a neurologist. Decongestant and hypotensive therapy.

303. Poisoning with organophosphate compounds.

304. Toxic atrophy of the optic nerves due to eye damage in the production of synthetic ethyl and methyl alcohols. Pathology is not subject to treatment.

21. MILITARY EXPERTISE

305. A conscript has post-burn trichiasis, clouding of the cornea of both eyes. There is a cicatricial deformation of the eyelids in the form of an inversion. The conscript is concerned about lacrimation. Visual acuity of both eyes= 0.6 (not corr.). Determine its suitability for military service.

306. A conscript with complaints of reduced vision of the right eye is examined. The inflammatory process marks the third time. Objectively. Visual acuity of the right eye = 0.09 (not corr.). The right eye is injected according to the mixed type. On the cornea, an infiltrate in the form of a tree branch, stained with fluorescein. Old corneal opacities. Subject departments without visible changes. The left eye is healthy. Determine the degree of fitness of the conscript for military service.

307. During the examination of the conscript, it was revealed. Repeatedly suffered from inflammatory diseases of the cornea of both eyes. Currently objectively. Visual acuity of the right eye = 0.1 (not corr.). Visual acuity of the left eye = 0.6 (not corr.). In the cornea there are old stromal opacities of varying degrees of severity. Determine the degree of its suitability for military service.

308. During the examination of a conscript in a hospital, it was revealed. Visual acuity of both eyes = 0.4 (not corr.). On the fundus on both sides of the phenomenon of tapetoretinal abiotrophy. Determine the degree of its suitability for military service.

309. During the examination of a conscript, it was found that the myopia of the right eye is determined by the skiascopy of 5.0 D, and on the left – 7.0 D. Determine the degree of its suitability for military service.

310. The conscript was examined in a hospital. Visual acuity of the right eye = 1.0. Refractometrically determined simple myopic astigmatism in 1.0 D. Visual acuity of the left eye = 0.09 (not corr.). Refractometrically complex myopic astigmatism in 7.0 D. The optical power of the cornea in the perpendicular meridians is 51.25 D and 44.75 D. Make a diagnosis. Determine the degree of its suitability for military service.

311. During the examination of a conscript, it was found that with skiascopy of both eyes, myopia of 13.0 D is determined. Determine the degree of its suitability for military service.

312. When examining a conscript, it was found that with a skiascopy of the right eye, hypermetropia of 7.0 D is determined, and on the left-6.5 D. Determine the degree of fitness for military service.

313. During the examination of a conscript, it was found that with a skiascopy of the right eye, a complex myopic astigmatism of 3.0 D is determined,and on the left – a mixed astigmatism of 4.5 D. Determine the degree of fitness for military service.

314. The conscript was examined in the hospital before and after cycloplegia. The following objective data were obtained. Before cycloplegia. Visual acuity of both eyes = 0.09 (not corr.). Refractometrically right is determined by a complex myopic astigmatism of 3.0 D with a maximum power of Meridian at 6.0 D. on the Left – complex myopic astigmatism

of 3.5 D with the maximum power Meridian 4.5. D. After cycloplegia visual acuity of the right eye (f-stop) = 0,09 with the sphere is 1.5 D and the cylinder –3,0 D = 0,2. Visual acuity of the left eye (f-stop) = 0,09 with the sphere and –1.0 D and the cylinder – 2.5 D = 0,2. Refractometrically, complex myopic astigmatism of 3.0 D with a maximum meridian strength of 5.0 D is determined on the right. On the left, complex myopic astigmatism of 3.5 D with a maximum meridian strength of 4.0 D. Make a diagnosis. Determine the degree of its suitability for military service.

Answers to situational problems.

305. 305. A conscript is not fit for military service. Must be removed from the military register.

306. A conscript is temporarily unfit for military service.

307. A conscript is fit for military service.

308. A conscript is not fit for military service. Must be removed from the military register.

309. A conscript is only fit for military service.

310. Simple myopic astigmatism of the right eye in 1.0 D. Complex myopic astigmatism of the left eye in 7.0 D, keratoconus of the left eye. A conscript is not fit for military service. Must be removed from the military register.

311. A conscript is not fit for military service. Must be removed from the military register.

312. A conscript is only fit for military service.

313. A conscript is only fit for military service.

314. Complex myopic astigmatism of the right eye of 3.0 D with a maximum meridian strength of 5.0 D; complex myopic astigmatism of the left eye of 3.5 D with a maximum meridian strength of 4.0 D. Amblyopia of the middle degree of both eyes. The conscript is limited to military service.

22. MEDICAL AND SOCIAL EXPERTISE

315. When examined by the ICEC commission, a 46-year-old patient has complicated myopia of a high degree (–14.0 D), beginning with complicated cataracts of both eyes. Objectively. Visual acuity of both eyes = 0.01 (not corr,). Visual fields on both sides are residual. Eyes calm. There are initial opacities in the lenses. Destructive changes in the vitreous body. On the fundus around the discs, there are extensive myopic cones that turn into staphylomas. Atrophic changes throughout the retina. What disability group corresponds to the patient's condition?

316. When examined by the MSEC commission, a 36-year-old patient with diabetes mellitus has diabetic retinopathy of both eyes. He has been suffering from diabetes for 8 years. It is treated by an endocrinologist, on insulin therapy. The decrease in vision of both eyes, more than the left, has been noted over the past year. Laser treatment was performed.

Objectively. Right eye. Visual acuity = 0.3 with a sphere +1.25 D and a cylinder –0.5 D = 0.5. The eye is calm. The front segment has no visible changes. Partial peripheral opacities in the lens. On the fundus, the optic disc is pale pink, with clear borders. The veins are dilated, of uneven caliber. There are hemorrhages in the retina, hard exudates, traces of laser coagulants. TOD = 18 mm Hg. Left eye. Visual acuity = counting fingers in the face. The eye is calm. The front segment has no visible changes. Partial peripheral opacities in the lens. On the fundus, the optic disc is pale pink, with clear borders. The veins are dilated, of uneven caliber. In the retina, hemorrhages, solid exudates, traces of laser coagulants, pronounced preretinal fibrosis of the vitreous body. Local traction retinal detachment. TOS = 18 mm Hg. What group of disability does the patient's changes correspond to? Rehabilitation activities?

317. When examined by the ICEC commission, a 63-year-old patient has immature age-related cataracts in both eyes. Visual acuity of the right eye = 0.5 (not corr.). Visual acuity of the left eye = 0.1 (not corr.). When examined with a wide pupil, no other pathology was detected. Actions of the MSEC doctor?

318. When examining a 30-year-old patient, it was revealed that the visual acuity of the right eye = 0.04 with a sphere –8.5 D = 0.6; visual acuity of the left eye = 0.05 with a sphere –8.5 D = 0.7. In the vitreous body of both eyes, filamentous destructive changes. There are myopic cones on both sides of the fundus. Peripheral retinal dystrophy. Refractometrically, myopia up to 10.0 D with elements of astigmatism is determined on both sides. Biometrics on the right is 27.2 mm, and on the left is 27.1 mm. Make a diagnosis. What are the limitations in professional activities are there for the patient?

319. A 48-year-old patient has been suffering from glaucoma for 4 years, more precisely, at this time, primary open-angle developed glaucoma with moderately elevated intraocular pressure was diagnosed. Since then, the patient has been receiving antihypertensive therapy. Intraocular pressure is compensated. At the time of examination, the visual acuity of both eyes = 0.8 (not corresponding). The eyes are calm. The front segments without any visible changes. On the fundus, excavation of the optic nerve disc 8/10. The field of vision of both eyes is narrowed in the upper-nasal quadrant to 30°, paracentral horseshoe-shaped scotomas. Intraocular pressure = 19 mm Hg. What restrictions in professional activity exist for the patient?

320. A 64-year-old patient suffers from age-related macular dystrophy of both eyes for a long time. During the last year, she notes a deterioration in the vision of both eyes, which makes it difficult for her to function. Objectively. Visual acuity of the right eye = 0.05 (exc., not corr.). The eye is calm. The front segment has no visible changes. There are pronounced dystrophic changes in the fundus of the eye in the macular region. In the field of view, the central scotoma is up to 10°. Visual acuity of the left eye = 0.03 (exc., not corr.). The eye is calm. The front segment has no visible changes. There are pronounced dystrophic changes in the fundus of the eye in the macular region. In the field of view, the central scotoma is up to 15-20°. What group of disability does the patient's changes correspond to?

321. A 53-year-old patient came for a professional examination, who did not make any complaints about his vision. The study found that the visual acuity of both eyes = 0.8 with a sphere of –1.0 D = 1.0. The eyes are calm anterior segments of the eyes without visible pathology. In the plane of the pupils of the lens with initial opacities. The fundus of the eye without features. Make a diagnosis. What are the limitations in professional activities are there for the patient?

322. When examined by the MSEC commission, a 52-year-old patient was objectively identified. Visual acuity of the right eye = 0.08 (not corr.). Visual acuity of the left eye = 0. The right eye is calm. Old stromal opacities of the cornea that do not capture the center of the cornea. Other parts of the anterior segment of the eye without visible pathology. The fundus was normal. Left eyeball without visible changes. Direct and friendly pupil responses to light are preserved. When reading the text through a pencil, the patient does not make any adjustment movements with his head. What disability group corresponds to the patient's condition?

323. During the examination in the MSEC, the patient was determined to have a disability group. What sections should contain his / her individual program of rehabilitation?

324. The patient, according to the MSEC expert doctor, simulates blindness in one eye. What methods can be used to detect the simulation?

Answers to situational problems.

315. The patient's data meet the requirements for group I disability.

316. The patient's data meet the requirements for group III disability. Proliferative diabetic retinopathy, complex hypermetropic astigmatism, traction retinal detachment of the right eye. Advanced diabetic retinopathy of the left eye. The patient is shown a vitrectomy with an endolaser on the right eye. Follow-up and treatment by an endocrinologist.

317. The MSEC doctor should recommend cataract surgery for the rehabilitation of the patient.

318. High complicated myopia is a contraindication to heavy physical labor, to work with a concussion of the body and an inclined position of the head, to visual strenuous work.

319. In case of peripheral vision disorders, it is impossible to work as a driver of any type of vehicle and at high altitude (crane operator, installer, fireman, stuntman, etc.). In glaucoma, work at night with significant mental and physical stress, work with a long tilt of the head is contraindicated.

320. The patient's data meet the requirements for group I disability.

321. Incipient cataract of both eyes. With the initial opacity of the lens, it is contraindicated to work in conditions of different types of radiation (infrared, ultraviolet, gamma rays), as well as in conditions of exposure to toxic substances such as trinitrotoluene, naphthalene.

322. The patient has no indications for the appointment of a disability group. It simulates blindness of the left eye. It needs to conduct control tests of the study.

323. The individual rehabilitation program consists of four sections

- *medical rehabilitation, which includes all types of treatment;*
- *vocational rehabilitation, which includes career guidance, vocational education, employment recommendations;*
- *social rehabilitation, which includes providing visually impaired people with psychological means of rehabilitation (a special device for reading a "talking book", a*

tactile cane, an alarm clock with a speech synthesizer, a clock with a relief designation, etc.);

- *psychological rehabilitation.*

324. Investigation of direct and friendly pupil response to light. With complete blindness in one eye, the direct reaction of the pupil to light is absent, friendly - preserved.
Closing the sighted eye, they offer the imaginary patient to look straight ahead. He usually fixes some object. Then a prism of 10-12° is placed in front of the eye, transferring the fixed object away from the macula. In this case, the really blind eye will remain motionless, and the imaginary blind one makes a movement towards the top of the prism, since otherwise it cannot clearly see the object being fixed.
Having closed the sighted eye, they lead the finger in front of the blind eye in various directions, offering to look to the right, to the left, etc., where they lead the finger. The blind eye usually turns in the indicated directions. Then continue to move your finger, but do not say the direction. The imaginary blind man continues to follow the finger with his eye and thus gives himself away.

23. PROTECTION OF CHILDREN'S VISION

325. A 22-year-old pregnant woman, primiparous, is observed in a women's consultation. When collecting anamnesis, it was found out that she has not seen well since childhood. During the consultation with an optometrist, retinal pigmentary dystrophy was diagnosed. At additional collection of anamnesis it is established that this disease is present at the father and the brother of the woman. What actions should the consultation doctor take?

326. In the second half of pregnancy, a 31-year-old woman suffered from rubella. What kind of congenital pathology in a child can be assumed by a doctor of a women's consultation?

327. The child was born full-term from an emergency delivery. What actions should employees of the maternity hospital take in relation to the organ of vision?

328. After birth, the child is in the nursery. What manipulations regarding the eyes should a nurse take before feeding a child?

329. In a 26-year-old woman, the child was born prematurely, and for a long time was in a cuvette with an increased oxygen content. What pathology of the eyes in a child should be feared? What actions required to be taken by the doctor at the maternity home?

330. The child was born from an emergency delivery. Pregnancy, childbirth and the postpartum period are not burdened. A district pediatrician came to the house for the first patronage visit. What actions should he take with regard to the organ of vision?

331. When examining a child at the age of 3 years, an ophthalmologist revealed myopia and prescribed eyeglass correction. Prevention of what pathological conditions of the eyes are achieved using optical vision correction? What are the tasks of a pediatrician?

332. A young pediatrician is sent to work in a kindergarten. What organizational measures should it take to protect the vision of preschoolers?

333. The parents of a 10-year-old child suffering from strabismus asked the ophthalmologist of the children's polyclinic to issue a certificate for restricting physical education. Are there any such restrictions? What classes do they relate to?

334. A 9th grade student was found to have myopia in both eyes at 8.5 D. Parents turned to the pediatrician for a certificate regarding visits to physical education classes. What are the limitations in this regard for this patient?

Answers to situational problems.

325. The employee of the women's clinic should make an appropriate entry in the exchange card and recommend contacting the genetic consultation.

326. Congenital cataract.

327. In the first minutes after birth, before the prevention of gonoblennorrhea, the condition of the eyelids, cornea, pupil and pupillary reactions to light should be checked. Prevention of gonoblennorrhea for each newborn is carried out immediately after birth. After treating the hands with alcohol and sterile cotton balls, the midwife removes the original lubricant from the child's eyelids, slightly pulls the lower eyelid and instills a solution of antibiotics (penicillin, tetracycline, etc.) or sulfonamides (sulfacyl sodium) into the eyes three times.

328. The treatment of the eyes of newborns is carried out by a nurse before each feeding, using a 2% solution of boric acid and a separate sterile cotton ball for each eye. In connection with the possibility of hemorrhages in the central zone of the retina, it is necessary to check the vision of each eye on a daily basis, alternately according to the pupillary reaction to light or the reaction of short-term tracking of objects moving in front of the eye (pencil, mirror, toys).

329. Retinopathy of prematurity. It is necessary to conduct an early ophthalmological examination of the child.

330. At the first patronage visit of the newborn, the mother continues to be trained in the care of the mucous membrane of the child's eyes, the condition of the adnexal apparatus and the eyeball is checked and the results are compared with the data of the maternity hospital. Be sure to monitor the state of vision: the reaction of the pupil to light, the reaction of tracking, fixation, recognition and object vision. The first and subsequent visits to pay attention to the mobility age, completeness Zach-rytiya eye slit, tight fit the edges of the eyelids to the eye, no slatestone, watery eyes, eye movements in different directions, the symmetry of their arrangement and the identity movements, the dynamics of changes in the visible structures of the eye – cornea, anterior chamber, pupil.

331. Prevention of amblyopia and strabismus. The pediatrician should monitor the wearing of glasses by children, explaining to parents the need for this to improve vision.

332. Pediatricians should strictly monitor the illumination of children's play areas, which should be at least 300 lux per unit of floor or table surface. Toys should not be small, they need a good, bright coloring. Physical education and health improvement of children are monitored taking into account the recommendations of an ophthalmologist, conducting sanitary and educational work with parents to protect the vision of children, especially those in the risk group.

333. There are some restrictions. The child is contraindicated in exercises related to the exact determination of the distance to the sports equipment (horse, barrier running, etc.).

334. With myopia above 8.0 D, children can only perform free breathing exercises.

24. PRINCIPLES OF MEDICAL TREATMENT IN OPHTHALMOLOGY

335. A patient with a disease of the visual organ is shown local administration of drugs. What types of local administration of drugs can be used?

336. A young entrepreneur decided to organize the production of eye drops in his pharmacy. What are the requirements for eye drops imposed by the State Pharmacopoeia?

337. A student of the Medical Academy will write an abstract on the pharmacodynamics of drugs used in ophthalmology. What features of the action of eye drops should he indicate in the abstract?

338. A patient with a disease of the cornea is assigned to lay an eye ointment. The doctor explained the purpose of the ointment for a longer effect of the drug on the eye. How can this be explained? What is the difference between eye ointments and others?

339. In the hospital, the doctor prescribed injections of a drug under the conjunctiva to the patient. The patient asks to tell him how this procedure is performed and why injections are needed, and not instilling drops, how does the drug get into the eye?

340. A patient is being treated in a hospital after a penetrating eye injury. He underwent primary surgical treatment of the wound, but on the 3rd day, pus appeared in the anterior chamber. It is supposed to perform paracentesis of the cornea with washing of the anterior chamber. What route of antibiotic administration can be offered to the patient?

341. A 7-year-old child is shown frequent subtenone injections of drugs. Which route of administration of the drug can be used and what is the method of its implementation?

342. A patient treated in a polyclinic for conjunctivitis should be washed out of the conjunctival sac. What solutions can be recommended for this?

343. For the treatment of conjunctivitis, the patient is shown instillation of medicines that have an astringent effect. What medications can be used?

344. The patient has severe pollinous conjunctivitis. What drugs can be used for local treatment?

<u>Answers to situational problems.</u>

335. Local treatment includes instillation of eye drops, laying of eye ointments, eye medicinal films, as well as subconjunctival, periocular, retrobulbar injections of drugs, injection of drugs into the anterior chamber, vitreous, subchoroidal injections, etc.

336. Eye drops should be sterile, stable and free of visible contamination, have a pH and osmotic pressure corresponding to these tear indicators. Eye drops are prepared under aseptic conditions using buffer solutions, preservatives, and prolonging agents. Medicinal products in drops should be well dissolved in an isotonic solution of sodium chloride or in oils (peach, olive) and have a therapeutic effect in non-toxic and non-irritating doses.

337. Immediately after instillation of eye drops, excess fluid is squeezed out by the eyelids. The amount of medication remaining in the conjunctival sac is immediately diluted with tear fluid, partially penetrates the conjunctiva and cornea, but most of all is diverted into the nasal cavity and absorbed there by its mucous membrane. Highly toxic substances, even in therapeutic doses, create a threat of poisoning. With the introduction of mydriatics, this is manifested by dry throat, cough, and sometimes, especially in children, facial hyperemia,tachycardia and even confusion. Myotics can cause painful colic and diarrhea. People with changes in the cardiovascular system react to the instillation of adrenaline with pain in the heart, pulse disorders, etc. Less toxic substances, absorbed into the blood, can cause allergic reactions.

338. Eye ointments last longer than drops. The water-oil suspension formed after applying the ointment to the eye is retained in the conjunctival cavity and forms a film on the surface of the cornea, from which the active substance is slowly absorbed into the eyeball. Eye ointments differ from similar products used in dermatological practice. Medicinal substances in eye ointments are as dispersed as possible, even the smallest solid particles are absolutely excluded.

339. Injections under the conjunctiva are preceded by epibulbar anesthesia, in which a solution of an anesthetic substance (dicaine, lidocaine, etc.) is injected into the conjunctival cavity three times at intervals of 1-2 minutes. The injection needle is inserted in the middle third of the interval from the limb to the lower transition fold for 6 hours of the conditional dial. The drug substance from the subconjunctival depot passes into the eye through the lymphatic pathways through the marginal network into the lymphatic slits of the cornea, from them into the anterior chamber of the eye, and directly at the injection site – through the sclera and limbus. However, the bulk of the drug solution after injection through the injection hole seeps into the conjunctival sac, from which it partially penetrates through the cornea into the eye, and partially is carried away by tear fluid.

340. Introduction of an antibiotic into the anterior chamber during surgery.

341. Fractional or continuous injection of solutions through a retrobulbar capillary is possible. One (proximal) end of the capillary is brought to the posterior segment of the eyeball, and the other (distal) is removed through a puncture on the upper eyelid and strengthened on the skin of the forehead with a band-aid. At the distal end of the capillary is a plug-plug, through which drugs are administered at a certain time.

342. 0.2% (1:5000) aqueous solution of furacilin, 1:5000 solution of potassium permanganate.

343. 2-3% solution of collargol, 0.5-1% aqueous solution of resorcinol, 0.25-0.5% solution of zinc sulfate, 1% solution of tannin.

344. Have allergical, alamid, spersallerg, custrom, maxidex, prevacid, lekrolin.

25. PHYSIOTHERAPY TECHNIQUES USED TO TREAT EYE DISEASES

345. A 37-year-old patient has a tendency to mooring after partial hemophthalmos in the posterior parts of the vitreous body. What kind of electrophoresis with enzyme preparations can be offered to him?

346. A 26-year-old patient received a penetrating wound to the eye with a copper fragment, the removal of which was delayed. In this regard, he had the phenomenon of chalcosis in the lens and cornea. What physiotherapy techniques can he use to remove copper ions from the eye?

347. A 56-year-old patient develops atrophy of the optic nerve after undergoing thrombosis of the central retinal vein. Is it possible for her to perform percutaneous electrical stimulation of the optic nerve?

348. After a blunt trauma to the left eye, a 32-year-old patient retains incomplete ptosis of the upper eyelid. What kind of physical therapy can be offered to him?

349. A 44-year-old patient develops toxic atrophy of the optic nerves after consuming methyl alcohol. What kind of physical therapy can help him?

350. An 8-year-old girl was diagnosed with amblyopia by a pediatric ophthalmologist. What types of physical therapy are applicable in this case?

351. A 28-year-old patient suffered a blunt trauma to his left eye two weeks ago. Against the background of treatment, he has a sluggish uveitis. Which type of physiotherapy treatment can be used?

352. A patient with incipient barley of the lower eyelid of the left eye came to the oculist's appointment. Which type of physiotherapy can help to resolve the inflammatory focus?

353. The oculist of the children's polyclinic was contacted by the mother of a child receiving therapy for a spasm of accommodation. The child receives procedures in the form of a laser speckle. Currently, the boy has a cold disease. Parents of the child are interested in the question: is it possible to continue classes in this case? What are the contraindications to laser speckle treatment?

354. A 13-year-old child should be examined for intraocular pressure. However, he is allergic to dicaine. What physiotherapy can help in this case?

Answers to situational problems.

345. The endonasal technique is used in pathological processes on the fundus and in the posterior layers of the vitreous body, especially with a tendency to mooring. Endonasal electrophoresis makes it possible to bring drugs to the posterior pole of the eye in the shortest possible way.

346. With the help of reverse electrophoresis-electroelimination, various ions can be removed from the eye. This method is used in chalcosis to remove copper ions, which are deposited

in the form of salts on the back surface of the cornea, in the vitreous, retina and contribute to the development of cataracts.

347. No. Contraindications to percutaneous electrical stimulation: tumors of the eye socket and eyeball, conditions after their removal, purulent processes in the eye socket, thrombosis, embolism of the central veins and arteries of the retina, uncompensated glaucoma.

348. Darsonvalization or diadynamic currents.

349. Hyperbaric oxygenation.

350. Percutaneous electrical stimulation, electrical reflexology, the use of laser speckles.

351. Low-frequency magnetic therapy.

352. Ultra-high frequency therapy.

353. Procedures should be interrupted. Contraindications: feverish conditions, colds, acute infectious diseases, cases of epileptic status in the anamnesis.

354. Local infrasound therapy can be used for local anesthesia to measure intraocular pressure.

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Department of Otorhinolaryngology with Ophthalmology

Benchmarks of test tasks

in the discipline of Ophthalmology, the main professional educational program of higher education is a specialty program in the specialty 31.05.01 medical business, partially implemented in a foreign language, approved on 24.05.2023.

for 4th year students

Specialty 31.05.01 medical business, partially implemented in a foreign language

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ANATOMY

The bactericidal action of the tear ensures its presence in it:
A-hyaluronidase;
B-chymotrypsin;
+C-lysozyme;
D-phosphotases;
E-fibrinolysin.

The block (trochlea) is located:
+A-in the upper-inner corner of the orbit;
B-in the upper-outer corner of the orbit;
C-in the lower-outer corner of the orbit;
D - in the lower-inner corner of the orbit;
E-at the top of the orbit.

The block nerve innervates:
A-upper and lower rectus muscles;
B-internal rectus muscle;
C-external rectus muscle;
+D-the upper oblique muscle;
E-lower oblique muscle.

A narrower pupil is observed in:
A-newborns;
B-middle-aged persons;
C-old people;
+D-true A and C;
E-is the same at any age.

The Bowman membrane is located between:
+A-corneal epithelium and stroma;
B-stroma and descemet shell;
C-descemet's membrane and endothelium;
D-epithelium and descemet shell;
E-there is no correct answer.

Hernias are called:
A-protrusions on the iris that separate the lacunae from each other;
B-folds that form in the iris when the pupil expands;
+C-protrusions on the iris that separate the pupil belt from the ciliated one;
D-jumpers between the iris root and the trabecula;
E-pigmented border in the area of the pupil.

In which of the three departments of the visual analyzer is light energy converted into nervous excitement?
+A-receptor (eye);
B-conducting paths;
C-subcortical centers;
D-cortical centers;
E-all of the above is correct.

All bones participate in the formation of the orbit, except:
A-frontal;
B-wedge-shaped;
+ C-temporal;
D-maxillary;

E-zygomatic.

In the total mass of the lens, proteins make up:
A-over 50%;
B-over 40%;
+C-more than 30%;
D-over 15%;
E-up to 10%.

Everyone takes part in the nutrition of the cornea, except:
A-edge looped capillary network;
+B-own vessels of the cornea;
C-lacrimal fluid;
D-watery moisture.

There is a muscle in the ciliated body:
A-constricting pupil;
B-dilating pupil;
C-orbital;
+D-ciliary;
E-Riolan.

In syndrome of the upper orbital fissure symptoms include all except:
A-ptosis;
+B-myosis;
C-mydriasis;
D-ophthalmoplegia;
E-exophthalmia.

The composition of the eyelid skin includes everything except:
A-soft fluffy hair;
+B-meibomian glands;
C-sebaceous glands;
D-sweat glands;
E-epidermis.

The composition of the lacrimal fluid includes everything except:
A-water;
B-mineral salts;
C-protein;
+D-lymphocytes;
E-lysozyme.

The vitreous body contains water:
A-up to 40%;
B-up to 50%;
C-up to 60%;
D-up to 85%;
+E-up to 98%.

The eyelids are:
A-the subordinate part of the visual organ;
B-protective apparatus of the visual organ;
+C-both;
D-neither one nor the other.

The eyelid contains all anatomical formations except:

A-skin;
B-muscle layer;
C-cartilage;
+D-tenon's fascia;
E-tarso-orbital fascia.

Venous circulation is carried out:
A-upper eye vein;
B-lower eye vein;
C-external eye vein;
+D-true A and B;
E-all of the above is true.

Venous outflow of blood from the eye and eye socket occurs in the direction of:
A-cavernous sinus;
B-pterygopalatine fossa;
C-veins of the face;
+D-all listed entities.

The upper wall of the orbit is made up of:
A-frontal and nasal bones;
B-the frontal bone and the large wing of the sphenoid bone;
+C-frontal bone and small wing of the sphenoid bone;
D-the frontal bone and the body of the sphenoid bone;
E-the frontal bone and the paper plate of the lattice bone.

The upper orbital vein leaves the eye socket through:
+A-upper orbital fissure;
B-visual opening;
C-lower orbital fissure;
D-oval hole;
E-round hole.

The upper orbital fissure connects the orbit with:
A-anterior cranial fossa;
+B-middle cranial fossa;
C-the posterior cranial fossa;
D-the region of the Turkish saddle;
E-pterygopalatine fossa.

Branches of the ophthalmic artery are:
A-frontal artery;
B-supraorbital artery;
C-the lacrimal artery;
+D-all of the above;
E-none of the above.

The moisture in the front chamber is used for:
A – power of the cornea;
B-lens nutrition;
B - refraction of light;
D-removal of waste exchange products;
+D – all of the above.

The inner wall of the orbit is made up of all the bones except:
A-wedge-shaped;
B-maxillary;

+C-zygomatic;
D-lattice;
E-lacrimal.

Intraocular fluid is produced mainly:
A-iris;
B-the choroid;
+C-ciliary body;
D-lens;
E-the vitreous body.

In the inner corner of the eye slit is located:
A-lacrimal gland;
B-additional lacrimal glands;
C-moll's hardware;
+D-lacrimal meat;
E-the muscle that lifts the upper eyelid.

Watery moisture provides all of the following functions, except:
A-maintaining a certain level of intraocular pressure;
B-leaching of slag substances from the eye;
C-nutrition of vascular structures of the eye;
D-conducting light to the retina;
+E-bactericidal and bacteriostatic action.

Watery moisture is formed in the eye due to:
A-filtration of vitreous body;
B-filtration from whirlpool veins;
C-osmosis through the cornea;
+D-secretion (ultrafiltration) from the vessels of the ciliary body;
E-correct B and C.

Watery moisture contains:
A-water;
B-albumins;
C-glucose;
D-true A and B;
+D-everything is true.

The elevation on the eyelids at the medial edge is called:
+A-lacrimal papilla;
B-lacrimal tubercle;
C-lacrimal SAC;
D-lacrimal meat;
E-semilunar fold.

In total, there are ___ muscles in the eye socket:
A-5;
B-6;
+C-7;
D-8;
E-9.

The excretory ducts of the meibomian glands open:
A-on the skin of the eyelids;
B-in conjunctival SAC in the area of the arches;
C-to the back camera of the eye;

D-in the tear bag;
+E-on the free edge of the eyelid.

Histologically, the retina is distinguished:
A-12 layers;
+B-10 layers;
C-8 layers;
D-5 layers;
E-3 layers.

The main role in the visual analyzer belongs to:
A-oculomotor apparatus;
B-optical media of the eye;
+C-retina and choroid;
D-correct A and B;
E-correct B and C.

The eye socket is formed:
A-5 bones;
B-6 bones;
+C-7 bones;
D-8 bones;
E-9 bones.

The fundus is:
A-the bottom of the eye socket, lined with the periosteum;
B-inner surface of the tenon capsule;
C-internal surface of the sclera;
+D-the inner surface of the eyeball, lined with the retina;
E-the entire inner surface of the eyeball.

The oculomotor nerve innervates:
A-upper rectus muscle;
B-internal rectus muscle;
C-lower rectus muscle;
D-the lower oblique muscle;
+E-all listed muscles.

The depth of an adult's orbit is:
A-2-3 cm;
+B-4-5 cm;
C-6-7 cm;
D-8-9 cm;
E-10-11 cm.

The depth of an adult's anterior chamber is normally equal to:
A-1-2 mm;
B-2-2.5 mm;
+C-2.5-3.5 mm;
D-3.5-4 mm;
E-4-5 mm.

The horizontal size of the adult cornea is equal to:
A-8 mm;
B-9 mm;
C-10 mm;
+D-11 mm;

E-12 mm.

Motor innervation of the pupil-dilating muscle is performed:
+A-the sympathetic nervous system;
B-parasympathetic nervous system;
C-facial nerve;
D-diverting nerve;
E-trigeminal nerve.

Motor innervation of the muscle that constricts the pupil is performed:
A-the sympathetic nervous system;
+B-parasympathetic nervous system;
C-facial nerve;
D-diverting nerve;
E-trigeminal nerve.

Motor innervation of extraocular muscles is performed:
A-oculomotor nerve;
B-excretory nerve;
C-block nerve;
+D-all of the above;
E-only A and B.

The optic disc is located on the fundus of the eye:
A-in the place of the projection of the yellow spot;
+B-4 mm medial to the yellow spot;
C-4 mm laterally to the yellow spot;
D-4 mm above the yellow spot;
E-4 mm below the yellow spot.

The optic nerve disk is:
A-the area where ganglion cell fibers converge;
B-place of absence of sticks and cones;
C-the place corresponding to the blind spot;
D-structure, which is the white matter of the brain;
+E-all of the above is true.

Long and short ciliary nerves contain:
+A-sensitive fibers;
B-trophic fibers;
C-motor fibers;
D-vasomotor fibers;
E-all of these fibers.

All qualities are characteristic of the cornea, except:
A-transparency;
B-high sensitivity;
C-Shine;
+D-abundant vascularization;
E-sphericity of the form.

The retina is characterized by everything except:
+A-the presence of sensitive innervation;
B-tight fixation on the toothed line;
C-the presence of sticks and cones in it;
D-nutrition from the choroid;
E-transparency.

For the lacrimal gland, everything is characteristic, except:
A-the presence of the orbital part;
B-presence of the palpebral part;
+C-production per day about 1 ml of tears;
D-presence of openings of the excretory ducts in the upper arch of the conjunctiva;
E-location in the upper-outer corner of the orbit.

The vitreous body is characterized by:
A-transparency;
B-tight fixation near the optic disc;
C-absence of blood vessels and nerves;
D-diffusion of nutrients from the aqueous humor;
+E-all of the above is true.

For the cartilage of the eyelid, it is characteristic:
A-half-moon shape;
B-the presence of cartilage;
C-presence of meibomian glands;
D-true A and B;
+E-true A and C.

The Central fossa of the macular spot of the retina is characterized by:
A-the presence of 4 layers of nerve cells;
B-the minimum thickness;
C-the presence of the cone elements;
D-the presence of rod-shaped elements;
+E-true all except D.

The posterior long ciliary arteries provide blood supply:
A-optic nerve;
B-the actual vascular membrane;
+Cthe ciliary body and the iris;
D-sclera;
E-all of the above.

The posterior short ciliary arteries provide blood supply:
A-optic nerve;
+B-the actual vascular envelope;
C-the ciliary body and the iris;
D-sclera;
E-all of the above.

Visual opening connects the orbit with:
A-anterior cranial fossa;
+B-area of the Turkish saddle;
C-frontal sinus;
D-posterior cranial fossa;
E-a lattice maze.

The following neuroepithelial cells provide visual functions:
+A-sticks and cones;
B-bipolar cells;
C-ganglion cells;
D-correct A and B;
E-correct A and C.

The optic nerve exits the orbit of the eye through:
A-upper orbital fissure;
+B-visual opening;
B-lower orbital fissure;
D-round hole;
E-doesn't go out of orbit.

The optic nerve has:
A-soft shell;
B-web shell;
C-hard shell;
+D-all of the above;
E-correct A and B.

The toothed line on the sclera corresponds to:
A-limb;
+B-place of attachment of oculomotor muscles;
C-the equator;
D-the horizontal Meridian;
E-vertical Meridian.

How many neurons does the retina consist of?
A-1;
B-2;
+C-3;
D-4;
E-5.

How many parts does the visual analyzer consist of?
A-1;
B-2;
C-3;
D-4;
+E-5.

The corneal layers are the most resistant to infection:
A-epithelium;
B–outer edge of the membrane;
C-stroma;
+D-internal boundary membrane;
E-the endothelium.

The lacrimal gland is innervated:
A-parasympathetic nervous system;
B-the sympathetic nervous system;
+C-mixed type;
D-somatic nervous system.

The anatomical boundaries of the posterior chamber include all but:
+A-the cornea;
B-ciliary body;
C-vitreous body;
D-iris;
E-lens.

The boundaries of the front camera include everything except:
A-cornea;

B-ciliary body;
+C-vitreous body;
D-iris;
E-lens.

The visual conducting system includes everything except:
A-optic nerve;
B-chiasma;
C-the lateral geniculate bodies;
+D-visual bumps;
E-a radiant crown.

Everything is related to the mechanism of lacrimal drainage, except:
A-capillary action of the lacrimal tubules;
B-the suction force of the lacrimal SAC under the action of the Gorner muscle;
+C-pushing tears into the lacrimal SAC using the Riolan muscle;
D-negative pressure in the nasal cavity;
E-specific reduction of the palpebral part of the circular eyelid muscle.

The external muscles of the eye include:
A-upper and outer rectus muscles;
B-internal and external rectus muscles;
C-the superior and inferior oblique muscles;
D-lower and inner rectus muscles;
+E-ll of the above.

Tear-producing organs include:
A-lacrimal gland;
B-additional lacrimal glands;
C-the lacrimal SAC;
+D-true A and B;
E-that's right.

The tear-removing organs include everything except:
+A-additional lacrimal glands;
B-nasal canal;
C-the lacrimal SAC;
D-lacrimal tubules;
E-tear points.

The vessels that feed the lens substance of an adult include:
A-a. hyaloidea;
B-anterior ciliary arteries;
C-short posterior ciliary arteries;
D-long posterior ciliated arteries;
+E-no blood supply.

What is the name of the inner shell of the eyeball?
A-conjunctiva;
B-fibrous capsule;
C- choroid;
+D-retina;
E-sclera.

Which of the three retinal neurons is facing the light:
A-sticks and cones;
B-bipolar cells;

+C-ganglion cells;
D-all of the above is true.

What part of the vascular tract is the choroid?
A-1/3;
B-1/2;
+C-2/3;
D-5/6;
E-9/10.

The optic nerve channel is used for passing:
A-optic nerve;
B-orbital artery;
C-orbital vein;
+D-correct A and B;
E-correct A and C.

The number of eyelashes on the upper and lower eyelids is:
A-100 and 50;
B-120 and 60;
+C-150 and 70;
D-170 and 80;
E-190 and 90.

The conjunctiva is divided into all departments except:
+A - conjunctiva of internal adhesions;
B-conjunctiva of cartilage;
C-conjunctiva of the transitional fold;
D-conjunctiva of the semilunar fold;
E-conjunctiva of the eyeball.

The conjunctival SAC is called:
A-cavity between the lacrimal SAC and half-moon crease;
+B-the cavity between the back of the eyelids and the surface of the eye;
C-the space between the conjunctiva and the lacrimal SAC;
D-the cavity between the outer junction of the eyelids and the eyeball.
E-there is no correct answer.

The cortical visual center is located:
A-in the frontal lobe of the brain;
B-in the parietal lobe of the brain;
C-in the temporal lobes of the brain;
+D-in the occipital lobe of the brain;
E-in the medulla oblongata.

Short posterior ciliary arteries feed:
A-the cornea;
B-iris;
C-the sclera;
+D-outer layers of the retina;
E-all of the above.

Blood supply to the eyeball is carried out:
+A-orbital artery;
B-the Central artery of the retina;
C-posterior ciliary arteries;
D-correct A and B;

E-correct B and C.

Blood supply to the iris and ciliary body is carried out:
A-posterior short ciliary arteries;
B-posterior long ciliary arteries;
C-anterior ciliary arteries;
D-true A and B;
+E-true B and C.

The mass of the eyeball is:
A-5-6 g;
+B-7-8 g;
C-9-10 g;
D-11-12 g;
E-13-15 g.

The meibomian glands produce:
A-tear;
B-the fluid of the eye;
C-slime;
+D-fat secret;
E-pus.

Small glands of Krause and Wolfring located in the arches of the conjunctival cavity secrete:
A-greasy secret;
B-slimy secret;
+C-tear;
D-correct A and B;
E-everything is correct.

The place of transition of the cornea to the sclera is called:
A-the equator;
B-trabecula;
C-the main Meridian;
+D-limb;
D – gerontoxon.

The "muscle funnel" originates from:
A-round hole;
B-block;
+C-visual opening;
D-upper orbital fissure;
E-lower orbital fissure.

The eye's muscular apparatus consists of extraocular muscles:
A-three;
B-four;
C-five;
D-six;
+E-seven.

The muscle layer of the upper eyelid contains all the muscles except:
A-the muscle that lifts the upper eyelid;
B-palpebral part of the circular eyelid muscle;
C-Muller muscles;
+D-muscles that lower the upper eyelid;
E-orbital part of the circular muscle of the eyelid.

The muscle that lifts the upper eyelid is woven into it:
A-one bundle;
B-two beams;
+C-three bundles;
D-four bundles;
E-five bundles.

On the eyeball, all identification points are distinguished, except:
A-limb;
B-poles;
C-meridians;
+D-Parallels;
E-the equator.

At what approximate distance from the limb is the toothed line located?
A-3-4 mm;
B-5-6 mm;
+C-7-8 mm;
D-9-10mm;
E-corresponds to a limb.

It is most active in the implementation of corneal nutrition:
A-epithelium;
B-outer edge of the membrane;
C-stroma;
D-internal boundary membrane;
+E-the endothelium.

The thinnest part of the sclera is:
A-limb;
B-place of attachment of oculomotor muscles;
C-the posterior pole;
D-equator;
+E-lattice plate.

The most resistant to mechanical effects on the cornea:
A-epithelium;
+B-outer edge of the membrane;
C-stroma;
D-internal boundary membrane;
E-the endothelium.

The outer wall of the orbit separates it from:
A-nasal cavities;
B-the cranial cavity;
C-maxillary sinus;
D-temporal fossa;
+E-pterygopalatine fossa.

The outer wall of the orbit is made up of all the bones except:
A-frontal;
B-zygomatic;
C-wedge-shaped;
+D-temporal;
E-all right.

The external muscles of the eye are innervated:
A-oculomotor nerve;
B-block nerve;
B-diverting nerve;
+D-all listed nerves;
E-only A and B.

They begin at the top of the orbit and form a tendon ring here:
A-upper and lower rectus muscles;
B-internal rectus muscle;
C-external rectus muscle;
D-the upper oblique muscle;
+E-all of the above.

Retinal neurons are represented by:
A-receptor neuroepithelium;
B-bipolar cells;
C-ganglion cells;
D-true B and C;
+E-all of the above is true.

The nerve fibers of the retina leave the eyeball through:
A-emissaries;
+B-hole plate;
C-trabecula;
D-schlemm's canal;
E-visual opening.

The lower orbital fissure connects the orbit with:
A-anterior cranial fossa;
B-middle cranial fossa;
C-the posterior cranial fossa;
D-the region of the Turkish saddle;
+E-pterygopalatine fossa.

The normal thickness of the Central part of the adult cornea is equal to:
A-1.5 mm;
B-1.2 mm;
C-0,7-0,8 mm;
+D-0.5-0.6 mm;
E-0.4 mm.

The volume of an adult's front camera is equal to:
A-0.5 ml;
B-0.4 ml;
C-.3 ml;
+D-0.2 ml;
E-0.1 ml.

The optical power of the adult cornea is equal to:
A-20 diopters;
B-30 diopters;
+C-40 diopters;
D-50 diopters;
E-60 diopters.

The average optical power of the lens is:

A-2 D;
B-10 D;
+C-18 D;
D-20 D;
E-40 D.

The orbit of an adult is similar in shape:
A-a three-sided pyramid;
+B-a four-sided pyramid;
C-hexahedral pyramid;
D-cone;
E-truncated cone.

The orbit is bordered:
A-with the frontal sinus;
B-with a lattice maze;
C-with the maxillary sinus;
D-with the skull cavity;
+E-everything is true.

The orbital muscle is innervated:
A-oculomotor nerve;
+B-sympathetic nerve;
C-diverting nerve;
D-optic nerve;
E-block nerve.

The main role of vorticose veins is to:
A-regulation of intraocular pressure;
+B-outflow of venous blood from the posterior part of the eye;
C-thermoregulation of eye tissues;
D-all of the above;
E-only A and B.

The main physiological significance of the iris is:
+A-light aperture;
B-the outflow of aqueous humor;
C-regulation of moisture temperature;
D-nutrition of the lens;
E-all of the above is true.

The main function of the choroid is:
+A-retinal nutrition;
B-eye thermoregulation;
C-outflow of intraocular fluid;
D-light perception;
E-nutrition of the vascular structures of the eye.

From the tendon ring at the apex of the orbit all oculomotor muscles begin except:
A-upper oblique;
B-outer straight;
+C-lower oblique;
D-top straight;
E-lower straight line.

The excretory nerve innervates:
A-upper and lower rectus muscles;

B-internal rectus muscle;
+C-external rectus muscle;
D-the upper oblique muscle;
E-lower oblique muscle.

The ratio of the diameter of the arteries to the veins on the fundus of the eye in an adult is:
A-1:1;
B-2:1;
C-1:2;
D-3:2;
+E-2:3.

The absence of pain symptoms in diseases of the choroid can be explained:
A-the autonomy of this zone of the vascular membrane of the eye;
B-violation of normal nerve conduction in the posterior part of the vascular membrane of the eye;
+C-absence of sensitive nerve endings in the choroid;
D-all of the above.

The outflow of liquid from the front chamber is carried out through:
A-pupil area;
B-the capsule of the lens;
+C-the area of trabeculae;
D-none of the above;
E-correct A and B.

Outflow of blood from the eyelids.:
A-in the direction of the veins of the orbit;
B-in the direction of facial veins;
+C-both directions;
D-none of the above.

The outflow of blood from the tissues of the eye socket is carried out through:
A-upper orbital vein;
B-the inferior orbital vein;
+C-and that and the other;
D-neither one nor the other.

The anterior ciliary arteries provide nutrition:
A-the conjunctiva of the eyeball;
B-iris;
C-the ciliary body;
+D-true B and C;
E-all right.

The anterior part of the vascular tract is supplied with blood:
A-anterior ciliary arteries;
B-posterior long ciliary arteries;
C-posterior short ciliary arteries;
+D-true A and B;
E-all of the above is true.

The peripheral part of the visual organ includes:
A-protective apparatus of the eyeball;
+B-eyeball;
C-the subordinate system of the eye;
D-conductive system of the eye;
E-all except D.

The retinal pigment epithelium has all the qualities except:
A-close connection with the vascular membrane;
B-performs the function of light perception;
C-contains visual substances;
D-eliminates the possibility of light scattering;
+E-contribute to the renewal of sticks and cones.

The power of the lens is carried out by:
A-iris;
+B-watery moisture;
C-fibers of the Zinc bundle;
D-ciliary body;
E-all of the above is true.

The position of the gear line corresponds to:
A-zone of the limb projection;
+B-the place of attachment of the tendons of the rectus muscles;
C-zone projection of the ciliary body;
D-correct A and B;
E-there is no correct answer.

The semitransparent zone of the corneal transition to the sclera is called:
+A-limb;
B-nimbus;
C-trabecula;
D-pupil;
E-Meridian.

In addition to nutritional, the choroid performs the following functions:
A-ultrafiltration of watery moisture;
B-outflow of intraocular fluid;
C-dark camera obscura;
D-true A and B;
+E-all of the above is true.

Precorneal film consists of:
A-mucin layer;
B-tear layer;
C-watery layer;
D-lipid layer;
+E-true A, C, and D.

The refractive power of the lens is:
A-up to 10 diopters;
+B-up to 20 diopters;
C-up to 30 diopters;
D-up to 35-40 diopters;
E-up to 50 diopters.

When you close your eyes, it shrinks:
A-the muscle that lifts the upper eyelid;
B-muscle that lowers the upper eyelid;
C-palpebral part of the circular eyelid muscle;
D-orbital part of the circular muscle of the eyelid;
+E-the entire circular muscle of the eyelids.

When closing the eyelids during sleep and blinking is reduced:

A-the muscle that lifts the upper eyelid;
B-muscle that lowers the upper eyelid;
+C-palpebral part of the circular eyelid muscle;
D-orbital part of the circular muscle of the eyelid;
E-the entire circular muscle of the eyelids.

The ciliated body is:
A-the middle part of the vascular tract;
B-a ring-shaped formation that has a triangular shape on the cut;
C-a functional element that performs the active phase of accommodation;
D – body, secreting the fluid of the eye ciliary;
+E-all of the above is true.

The cornea consists of:
A-two layers;
B-three layers;
C-four layers;
+D-five layers;
E-six layers.

The cornea and conjunctiva of the eye are constantly moisturized due to:
A-secret of the lacrimal glands;
B-secret of the sebaceous glands;
C-secretions of the mucous glands;
+D-all of the above;
E-only A and C.

The growth of the lens ends:
A-by 2 years;
B-to 5 years;
C-by the age of 18;
D-to 23 years;
+E-continues throughout life.

The thinnest wall of the orbit is:
+A-internal;
B-lower;
C-outdoor;
D-upper;
E-correct C and D.

The thickest layer of the cornea is:
A-epithelium;
B-outer edge of the membrane;
+C-stroma;
D-internal boundary membrane;
E-the endothelium.

The properties of the iris are all but:
+A-color changes depending on lighting;
B-round shape;
C-the physiological function of the diaphragm;
D-presence of the pupil in the center;
E-changes in pupil size.

The properties of the lens are all but:
A-forms of a biconvex lens;

+B-blood supply from the anterior ciliary arteries;
C-elasticity;
D-transparency;
E-there is no correct answer.

The retina performs the function:
A-refractions of light;
B-trophic;
+C-the perception of light;
D-protective;
E-all of the above.

The retina is supplied with blood:
A-the Central artery of the retina;
B-posterior long ciliary arteries;
+C-posterior short ciliary arteries;
D-true A and B;
E-true A and C.

The retina is firmly fixed in the following places:
A-on the toothed line;
B-in the area of the optic disc;
C-at the point of transition of the iris to the ciliated body;
+D-true A and B;
E-all of the above is true.

The sclera is designed for:
A-trophic eyes;
+B-protection of internal eye formations;
C-refraction of light;
D-all of the above;
E-none of the above.

The sclera consists of all layers except:
A-episclera;
B-own substance;
+C- subscleral;
D-brown plate;
E-all of the above is true.

The lacrimal gland in the child begins to function:
A-immediately after the birth of the child;
B-a few days after birth;
+C-in 4 to 6 weeks after birth;
B-6 months after birth;
E-a year after birth.

The tear-nasal canal opens:
A-in the lacrimal lake;
+B-at the bottom of the bow;
C-in conjunctival SAC;
D-in the upper nasal passage;
E-in the maxillary sinus.

Lacrimal tubules connect:
A-lacrimal gland with conjunctival SAC;
+B-tear points with a tear bag;

C-tearfully bag with the nasal cavity;
D-lachrymal stream with lachrymal lake;
E-lacrimal gland with lacrimal points.

Layer of the retina that perceives light, is a:
+A-layer of sticks and cones;
B-internal nuclear layer;
C-the outer nuclear layer;
D-inner plexiform layer;
E-outer plexiform layer.

The layers of the cornea are located:
+A-parallel to the corneal surface;
B-chaotic;
C-concentric;
D-correct A and B;
E-correct B and C.

The contents of the eye socket are all but:
A-eyeball;
B-fat;
+C-lacrimal SAC;
D-tenon fascia;
E-enlargement of extraocular muscles.

The connective membrane of the eye is called:
+A-conjunctiva;
B-fibrous capsule of the eye;
C-the cornea;
D-sklera;
E-tenon shell.

The vascular tract performs:
+A-trophic function;
B-the function of light refraction;
C-function of the perception of light;
D-protective function;
E-all of the above.

The choroid vascular system consists of:
A-anterior long ciliary arteries;
B-latticed arteries;
C-back long ciliary artery;
D-nasociliary arteries;
+E-short posterior ciliary artery.

The vascular tract of the eye consists of all these parts, except:
A-choroids;
B-ciliary body;
C-iris;
+D-vessels of the retina;
E-everything is correct.

The average diameter of the adult cornea is normally equal to:
A-8-9 mm;
+B-10 mm;
C-11-12 mm;

D-13-14 mm;
E-15-16 mm.

The average value of the refractive power of the adult cornea is equal to:
A-23 D;
B-30 D;
+C-43 D;
D-50 D;
E-53 D.

The average value of the radius of curvature of the anterior surface of the adult cornea is:
A-9 mm;
+B-7.7-7.8 mm;
C-6,7-6,8 mm;
D-5.5 mm;
E-5 mm.

The vitreous body performs:
A-trophic function;
B-the "buffer" feature;
C-light-conducting function;
+D-all of the above.

The tarzo-orbital fascia performs all functions except:
A-separates the orbit from the eyelids;
B-closes the entrance to the eye socket;
C-attaches to the edges of the cartilage;
D-prevents the penetration of inflammatory processes from the eyelids and lacrimal SAC into the orbit;
+E-surrounds the eyeball as a bag.

The tenon capsule separates:
A-vascular membrane from the sclera;
B-the retina from the vitreous body;
+C-eyeball from the orbit's fiber;
D-lens from the vitreous body;
E-there is no correct answer.

The tenon fascia performs all functions except:
+A-closes the entrance to the eye socket;
B-surrounds the eyeball as a bag;
C-forms the vagina for eye muscles;
D-divides the eye socket not two departments;
E-forms a capillary gap between it and the eyeball.

The tissues of the eye socket are fed from:
A-latticed arteries;
B-lacrimal artery;
+C-orbital artery;
D-facial artery;
E-the Central artery of the retina.

Topographically, the optic nerve can be divided into all segments except:
A-intraocular;
B-eye;
C-channel;
D-intracranial;
+E-chiasmal.

At the adult person with emmetropic refraction in the sagittal size of the eye is equal to the average:
A-19-20 mm;
B-21-22 mm;
+C-23-24 mm;
D-25-26 mm;
E-27-28 mm.

In a healthy adult, the ratio of the gauge of the retinal arteries and veins is defined as:
A-1:2;
+B-2:3;
C-2:5;
D-1:1;
E-1:1.5.

At the lower-inner edge of the eye socket begins:
A-upper rectus muscle;
B-lower rectus muscle;
C-internal rectus muscle;
D-the upper oblique muscle;
+E-lower oblique muscle.

The newborn has all the paranasal sinuses except:
A-maxillary;
+B-frontal;
C-lattice maze;
D-true A and B;
E-true B and C.

The mouth of the lacrimal-nasal canal is _____ cm from the external opening of the nose.
A-1-1.5 cm;
B-2-2.5 cm;
+C-3-3.5 cm;
D-4-4.5 cm;
E-5-5,5 cm.

The physiological significance of the iris is reduced to all of the following factors, except:
+A-bactericidal;
B-protection of the retina from the ultraviolet part of the spectrum of sunlight and regulation (dosing) of light entering the posterior part of the eye;
C-participation in ultrafiltration and outflow of intraocular fluid;
D-centering the light beam on the macular area of the retina;
E-all of the above.

The functional center of the retina is:
A-optic disc;
+B-the Central fossa;
C-zone of the gear line;
D-correct A and C;
E-correct A and B.

The choroid has:
A-one layer of vessels;
B-two layers of vessels;
+C-three layers of blood vessels;
D-four layers of vessels;
E-five layers of vessels.

The choroid provides:
A-nutrition of the optic nerve;
B-nutrition of the cornea;
C-feed of the sclera;
+D-retinal nutrition;
E-all of the above is true.

The choroid nourishes:
+A-outer layers of the retina;
B-inner layers of the retina;
C-the entire retina;
D-all of the above.

Choriocapillaries differ from conventional capillaries in all properties except:
A-a wide opening;
B-easy passage of red blood cells;
C-slow speed of red blood cells;
D-presence of fenestrated walls;
+E-all of the above.

Through the upper orbital slit pass:
A-orbital nerve;
B-oculomotor nerves;
C-main venous collector of the orbit;
+D-all of the above;
E-none of the above.

Sensitive innervation of the eye and its appendages is performed:
A-the first branch of the trigeminal nerve;
B-the second branch of the trigeminal nerve;
C-the third branch of the trigeminal nerve;
+D-true A and B;
E-all of the above is true.

Corneal sensitivity is higher in:
A-region of the limb;
B-perilimbal zone;
C-paracentral zone;
+D-Central area;
E-is the same across the entire surface.

Corneal sensitivity is affected by the lesion:
A-facial nerve;
B-oculomotor nerve;
+C-trigeminal nerve;
D-correct A and B;
E-correct A and C.

The epithelium covers:
A-back capsule of the lens;
+B-the front capsule of the lens;
C-the entire capsule of the lens;
D-germ nucleus of the lens;
E-the nucleus of the lens.

The pit of the lacrimal gland is located:

A-in the recess of the lacrimal bone;
B-in the upper-inner corner of the orbit;
+C-in the upper-outer corner of the orbit;
D-in the recess of the sphenoid bone;
E-under the medial cleavage of the eyelids.

METHODS OF RESEARCH OF PATIENTS

The value of the eyeball's distance from the orbit can be determined using:
A-ophthalmometry;
B-ultrasonic biometrics;
+C-exophthalmometry;
D-refractometry;
E-dynamometry.

Intraocular pressure can be examined by all methods except:
+A-ophthalmodynamometry;
B-tonometry by Maklakov;
C-palpation method;
D-tonometry by Goldman;
E-tonography.

Gonioscopy is used for examination:
A-of the cornea;
+B-front camera angle;
C-flat part of the ciliary body;
D-vitreous body;
E-fundus.

Details of the retina can be viewed by the method:
A-passing light;
B-side lighting;
C-fentoskopy;
+D-ophthalmoscopy;
D-all the methods listed.

Diaphanoscopy is:
A-examination of the fundus;
B-translucence of the eye through the pupil;
+C-dialerline shining eyes;
D-examination of the anterior segment of the eye in reflected light;
E-there is no correct answer.

To perform ophthalmoscopy in the reverse form, you must have:
A-ophthalmoscope;
B-the lens is 20 D;
C-lens in 13 D;
D-true A and B;
+E-true A and C.

To study the function of the tear-producing organs, it is necessary to make:
A-channel sample;
B-the sample with the fluorescein;
C-nasal test;
+D-Schirmer sample;
E-orthostatic sample.

To examine the upper transitional fold of the eyelids, you must perform:
A-inversion of the lower eyelid;
B-inversion of the upper eyelid;
+C-double inversion of the upper eyelid;
D-pulling back the upper eyelid with the help of a bridle suture;
E-manipulation is not possible.

All methods can be used to examine the anterior segment of the eye, except:
A-side lighting;
B-combined method;
+C-ophthalmoscopy;
D-biomicroscopy;
E-focal lighting.

To examine the retina, you need to perform:
A-gonioscopy;
+B-ophthalmoscopy;
C-biomicroscopy;
D-cycloscope;
E-fentoscopy.

To perform an inversion of the upper eyelid, you can use:
+A-everything but the G;
B-a glass wand;
C-velodyne;
D-eyelid retractor;
E-tool is not needed.

To perform the inversion of the lower eyelid, you must have:
A-glass stick;
B-velodyne;
C-eyelid retractor;
+D-tool not needed;
E-tweezers.

To study the optical power of the cornea, use:
A-biomicroscopy;
+B-ophthalmometry;
C-exophthalmometry;
D-refractometry;
E-US-biometrics.

What types of ophthalmoscopy do you know?
A-straight and sideways;
B-side and reverse;
+C-direct and indirect;
D-direct and indirect;
E-there is no correct answer.

What degree of increase in intraocular pressure when examining it palpation does not happen:
A-T+1;
B-T+2;
C-T+3;
+D-T+4;
E-Tn.

A tubular test is considered positive if the eyeball discolors through:
+A-1-2 minutes;
B-3-4 minutes;
C-5-7 minutes;
D-7-10 minutes;
E-not discolored.

The criterion for transparency of transparent eye media when conducting a study of transmitted light is:
A-yellow glow of the pupil;
B-the lack of luminescence of the pupil;
C-the grey luminescence of the pupil;
D-green glow of the pupil;
+E-red glow of the pupil.

The method of biomicroscopy was first proposed:
A-Hermann Helmholtz;
+B-Alvar Gulstrand;
C-Albrecht Grefe;
D-Franz Cornelius Donders;
E-Jan Purkinje.

The method of echoophthalmography is based on the use of:
A-light emission;
+B-ultrasonic radiation;
C-infrasound radiation;
D-laser radiation;
E-x-ray radiation.

A nasal test is considered positive if the dye appears in the nose through:
A-1-2 minutes;
+B-3-5 minutes;
C-6-7 minutes;
D-8-10 minutes;
E-does not appear.

An optical section of the cornea and lens can be obtained by examining the eye:
A-ophthalmoscope;
B-skiascope;
C-gonioscope;
+D-biomicroscope;
E-diaphanoscope.

Examination of the eye with a slit lamp is called:
A-ophthalmoscopy;
+B-biomicroscopy;
C-diaphanoscopy;
D-skiascopy;
E-there is no correct answer.

Examination of the fundus is possible with the help of all of the above, except:
+A-diaphanoscope;
B-ophthalmoscope;
C-fundus cameras;
D-fundus-lenses;
E-all of the above.

The main advantage of indirect binocular ophthalmoscopy over conventional ophthalmoscopy is the ability to:
A-more detailed examination of the fundus;
B-examination of a larger area of the fundus;
+C-getting a three-dimensional image;
D-conducting research with color filters;
E-no advantages.

Ophthalmoscopy and eye mirror offered:
A-Hippocrates;
B-Cornelius Celsus;
C-Johan Kepler
+D-Hermann Helmholtz;
E-Albrecht Grefe.

When the upper eyelid is turned out, the cartilage glands look like:
+A-yellowish-gray stripes perpendicular to the edge of the eyelids;
B-yellowish-gray stripes parallel to the edge of the eyelids;
C- reddish stripes that are perpendicular to the edge of the eyelids;
D-reddish stripes parallel to the edge of the eyelids;
E-glands are not visible.

When gonioscopy distinguish:
A-wide angle of the front camera;
B-average width angle;
C-narrow angle of the front camera;
B-closed angle of the front camera;
+E-all of the above is true.

When examined by side lighting, the lens becomes visible:
A-for accommodation;
B-for cycloplegia;
+C-only when it is clouded;
D-never visible;
E-in the inflammatory process of the lens.

When conducting an external examination, it is impossible to assess:
A-condition of the front and back edges of the eyelids;
+B-state of the ciliary body;
C-the color of the eyelid skin;
D-position and thickness of the eyelid edges;
E-direction of eyelash growth.

When performing fluorescent angiography of the posterior segment of the eye, it is possible:
A-determine the pathological condition of the fundus vessels;
B-determine the barrier function of the fundus vessels;
C-to study the dynamics of the pathological process in the fundus;
D-determine indications for laser treatment of the eye;
+E-all of the above is true.

With passing light, you can explore the transparency:
A-of the cornea;
B-for the front camera;
+C-all of the above;
D-lens;
E-vitreous body.

There are all types of eyeball injection, except:
+A-surface;
B-conjunctival;
C-pericorneal;
D-mixed;
E-all without exception.

Using the a-method of ultrasound diagnostics, you can determine:
A-retinal detachment;
B- the thickness of the lens;
C-intraocular foreign body;
D-intraocular neoplasm
+E-all of the above.

Using the side lighting, you can view:
A-the cornea;
B-iris;
C-the fundus;
+D-true A and B;
E-that's right.

With the help of an exophthalmometer, you can identify:
A-exophthalmos;
+B-true A and C;
C-enophthalmos;
D-true A and E;
E-buftalm.

Состояние угла передней камеры можно исследовать с помощью:
А – гониоскопа;
Б – линзы Гольдмана;
В – осмотра по Вургафту;
Г – верно А и Б;
+Д – верно все.

Standard weights for elastotonometry are all but:
A-5 g;
B-7.5 g;
C-10 g,
+D-10.5 g;
E-15 g.

Daily fluctuations in ophthalmotonus in healthy people should not exceed:
A-3 mm Hg;
B-4 mm Hg;
+C-5 mm Hg;
D-6 mm Hg;
E-7 mm Hg.

There are tonometry techniques for:
A-Weber;
B-Shiotsu;
C-Goldman;
D-Maklakov;
+E-true all but A.

The thickness of the lens and the length of the anteroposterior axis of the eye can be determined:
A-by means of biomicroscopy;
B-using pachymetry;
+C-using ultrasound echoophthalmography;
D-using the x-ray method;
E-using a Refractometer.

Tonometer for measuring intraocular pressure.:

A-F. Dorofeev;
B-E.A. Junge;
+C-A.N. Maklakov;
D-A.A. Kryukov;
E-S.S. Golovin.

Echoophthalmography is the study of the eye using:
+A-ultrasound;
B-x-ray radiation;
C-light beam;
D-infrasound;
E-thermal radiation.

VISUAL FUNCTION

There are all kinds of scotomas, except:
+A-achromatic;
B-physiological;
C-relative;
D-positive;
E-Central.

For visual acuity research, you can use everything except:
A-tables of Sivtsev;
+B-Rabkin tables;
C-tables of Orlova;
D-Snellen's optotypes;
E-Polyak's optotypes.

All methods can be used to study the field of view, except:
A-control;
B-perimeters;
+C-ophthalmometry;
D-campimetry;
E-you can use all methods.

The retina is characterized by all functions except:
A-visual acuity;
B-fields of view;
+C-binocular vision;
D-color vision;
E-light perception.

If the patient distinguishes only the first line of the table for determining visual acuity from a distance of 2.5 meters, then he has a visual acuity equal to:
A-0.1;
+B-0.05;
C-0.03;
D-0.02;
E-0.01.

If the patient distinguishes only the first line of the table for determining visual acuity from a distance of 1 meter, then he has a visual acuity equal to:
A-0.1;
B-0.05;
C-0.03;
+D-0.02;
E-0.01.

If a patient from a distance of 5 meters can read the letters of the second row from the top in the Sivtsev table, his visual acuity is equal to:
A-0.1;
+B-0.2;
C-0.3;
D-0.4;
E-0.5.

If a patient from a distance of 5 meters can read the letters of the fourth row from the top in the table of Sivtsev, his visual acuity is equal to:
A-0.1;

B-0.2;
C-0.3;
+D-0.4;
E-0.5.

If white and colored objects are not perceived at all in a certain area, then this scotoma is called:
A-blind spot;
B-Central scotoma;
C-relative scotoma;
+D-absolute scotoma;
E-Central scotoma.

If a certain area of white and colored objects become less bright and contrasting, then this scotoma is called:
A-blind spot;
B-Central scotoma;
+C-relative scotoma;
D-absolute scotoma;
E-Central scotoma.

The following neuroepithelial cells provide visual functions:
+A-sticks and cones;
B-bipolar cells;
C-ganglion cells;
D-correct A and B;
E-correct A and C.

Color perception research can be done in any way except:
+A-tables of Sivtsev;
B-Rabkin tables;
C-tables Yustova;
D-tests of Farnsworth;
E-anomaloscope.

What areas of the fundus give physiological scotomas?
A-the head of the optic nerve and the dentate line;
+B-head of the optic nerve and large vessels;
C-optic nerve head and yellow spot;
D-yellow spot and large vessels;
E-yellow spot and scalloped line.

Xanthopsia is the vision of surrounding objects in:
+A-yellow;
B-red;
C-green;
D-blue.

Who was the first to put forward the three-component theory of color perception?
A-Ibn Sina;
B-Kepler;
+C-M.V. Lomonosov;
D-T.Jung;
E-H.Helmholtz.

The highest visual acuity in the Central fossa of the retina is due to the fact that:
A-the Central fossa is located almost along the axis of the optical system of the eye;
B-there is a maximum concentration of cones;

C-each foveolar cone is connected to its own ganglion cell;
D-only B and C;
+E-all of the above.

The highest visual acuity is associated with the function:
A-the sclera;
B-the choroid;
C-the optically inactive part of the retina;
+D-Central fossa of the retina;
E-all of the above.

The most common violation of color perception is:
A-achromasia;
B-monochromate;
C-dichromate;
+D-abnormal trichromate;
E-trichromate.

The most frequent pathological changes in the field of vision are:
+A-focal defects-scotomas;
B-concentric narrowing of the field of view;
C-bilateral loss of half of the field of view-hemianopsia;
D-all of the above is true;
E-true A and B.

Violation of dark adaptation is called:
A-hemianopsia;
B-amblyopia;
C-mesopia;
D-hypermetropia;
+E-day-blindness.

About the defeat of the visual tract can speak:
A-blindness of one eye;
B-binasal hemianopsia;
C-Central absolute scotoma;
+D-homonymous hemianopsia;
E-bitemporal hemianopsia.

The main function of the visual analyzer, without which there can be no other functions, is:
A-peripheral vision;
B-visual acuity;
C-color perception;
+D-light perception;
E-stereoscopic vision.

A feature of twilight vision is all of the above, except:
+A-narrowing of the field of view;
B-colourlessness;
C-reduced visual acuity;
D-changes in the brightness (lightness) of colors;
E-all of the above.

Visual acuity can be examined using:
A-optokinetic nystagmus;
B-the helium-neon laser with a linear diaphragms;
C-primrose test;

D-autoframeskip at Purkinje;
+Eall of the above.

The absence of color perception is called the second type of cones:
A – monochromate;
B-Protanopia;
+C-deuteranopia;
D-tritanopia;
E-protanomaly.

The patient's lack of light perception indicates:
A-intense opacity of the optical media of the eye;
B-common retinal detachment;
C-disease of the neuromuscular apparatus of the eye;
+D-damage to the visual apparatus of the eye;
E-all of the above is true.

The first suggested the existence of 3 elements in the retina for color perception:
+A-M.V. Lomonosov;
B-Johan Kepler;
C-Isaac Newton;
D-Thomas Jung;
E-Hermann Helmholtz.

The field of view can be explored in all ways except:
A-perimetery;
B-campimetry;
C-control method;
+D-ophthalmometry;
E-quantitive perimetry.

When the visual acuity is higher than 1.0 the value of the angle of view:
+A-less than 1 minute;
B-equal to 1 minute;
C-more than 1 minute;
D-equal to 2 minutes;
E-more than 2 minutes.

When the visual acuity is equal to 1.0 the value of the angle of view:
A-less than 1 minute;
+B-equals 1 minute;
C-more than 1 minute;
D-is equal to 2 minutes;
E-more than 2 minutes.

In a perimetric study, the physiological scotoma is normally located in relation to the point of fixation in:
A-15º from the bow;
B-20º from the bow;
+C-15º on the temporal side;
D-20º from the temporal side;
E-30º on the temporal side.

Acquired disorders of color vision is:
A-achromasia;
B-color blindness;
C-Protanopia;

+D-cyanopsia;
E-tritanomaly.

The cause of hemeralopia may be:
A-diseases of the retina and optic nerve;
B-liver diseases;
C-the beriberi A;
D-glaucoma;
+E-all of the above.

A direct and friendly reaction of the pupils to light is formed in the child.:
+A-date of birth;
B-3 months of life;
C-6 months of life;
D-1 year of life;
E-3 years of life.

Arrange them in order, starting with the widest border of the field of view on the colors:
A-blue, green, red;
B-red, blue, green;
+C-blue, red, green;
D-green, blue, red;
E-yellow, green, red.

Disorder of dark adaptation (day-blindness) can occur when:
A-uveitis, panuveitis, high degrees of myopia;
B-inflammatory lesions of the optic nerve;
C-lack or absence of vitamin "A" in food, as well as "B_2" and " C»;
D-inflammatory and degenerative lesions of the retina;
+E-all of the above.

From a distance of 5 m the letter of the tenth row of the Sivtsev table is visible at an angle of:
A-1';
B-3';
+C-5';
D-1°;
E-3°.

From a distance of 5 m details of the letter of the tenth row of the table Sivtseva visible at an angle of:
+A-1';
B-3';
C-5';
D-1°;
E-3°.

The preservation of the Central zone of the visual field in homonymous hemianopsia indicates a lesion:
A-optic nerve;
B-chiasma;
C-the optic tract;
+D-radiation Grazioli;
E-cortical departments.

Dark adaptation should be checked in humans when:
A-suspected retinal pigment abiotrophy, with high-grade myopia;
B-vitamin deficiency, cirrhosis of the liver;

C-choroiditis, retinal detachment, stasis of the disc of the spectator nerve;
D-professional selection of drivers, aviators, train drivers, military expertise;
+E-all of the above.

Patients with deuteranopia have a prolapse:
+A-green-sensed component;
B-red-sensed component;
C-blue-sensed component;
D-yellow-sensed component;
E-correct B and D.

Patients with Protanopia, there is a loss:
A-green-sensed component;
+B-red-sensed component;
C-blue-sensed component;
D-yellow-sensed component;
E-correct B and D.

Patients with tritanopia have a prolapse:
A-green-sensed component;
B-red-sensed component;
+C-blue-sensed component;
D-yellow-sensed component;
E-correct B and D.

In a healthy adult, the upper limit of the field of vision for white is from the point of fixation in:
A-45º;
+B-55º;
C-65-70º;
D-90º;
E-100º.

In a healthy adult, the internal border of the field of vision for white is located from the point of fixation in:
A-45º;
+B-55º;
C-65-70º;
D-90º;
E-100º.

In a healthy adult, the outer border of the field of vision for white is from the point of fixation in:
A-45º;
B-55º;
C-65-70º;
+D-90º;
E-100º.

In a healthy adult, the lower limit of the field of vision for white is from the point of fixation in:
A-45º;
B-55º;
+C-65-70º;
D-90º;
E-100º.

The nodal point of the eye is called:
A-point located in the center of the cornea;
B-a point lying in the middle of the optical axis of the eye;

+B-the point through which the rays pass without being refracted;
D-the point corresponding to the Central fossa of the retina;
E-a point that lies in front of the eye at a finite distance.

he color vision function is related to:
A-cortical analyzer;
B-the optic nerve;
C-optical apparatus of the eye;
D-sticks to the retina;
+E-cones of the retina.

The functions of the retinal cone apparatus are:
A-visual acuity and field of view;
+B-visual acuity and color perception;
C-field of view and light perception;
D-field of view and color perception;
E-color perception and light perception.

The functions of the retinal rod apparatus are:
A-visual acuity and field of view;
B-visual acuity and color perception;
+C-field of view and light perception;
D-field of view and color perception;
E-color perception and light perception.

Chloropeta is the vision of surrounding objects in:
A-yellow;
B-red;
+C-green;
D-blue.

Colors are not perceived at night due to the fact that:
A-insufficient illumination of surrounding objects;
B-only the rod system of the retina functions;
C-the retinal cone system does not function;
+D-all of the above.

Central vision is characterized by:
A-high visual acuity;
B-perception of color;
C-perception of the shape of the object;
D-distinguishing individual parts of the item;
+E-all of the above.

Cyanopsia is the vision of surrounding objects in:
A-yellow;
B-red;
D-green;
+D-blue.

The human eye distinguishes between electromagnetic waves of the light part of the spectrum.:
A-from 196 nm to 360 nm;
B-from 296 to 560 nm;
+C-from 396 to 760 nm;
D-from 496 to 760 nm;
E-from 596 to 960 nm.

Erythropsia is the vision of surrounding objects in:
A-yellow;
+B-red;
C-green;
D-blue.

REFRACTION

Accommodation is:
A-static refraction;
B-refractive power of the cornea;
C-anterior-posterior axis of the eye;
+D-adaptation of the visual apparatus to viewing objects at different distances from the eye;
E-all of the above.

Aniseikonia call:
A-abnormal refraction of the eye;
B-different refraction in different meridians of the eye;
C-the abnormality of color perception;
D-different refractive power in different eyes;
+E-different size of the image on the retina of different eyes.

Anisometropy is called:
A-abnormal refraction of the eye;
B-different refraction in different meridians of the eye;
C-the abnormality of color perception;
+D-different refractive power in different eyes;
E-the different size of the image on the retina of different eyes.

The nearest point of clear vision is:
A-the point located at the top of the cornea;
B-point located in front of the lens;
C-point located behind the lens;
+D-the minimum distance at which the objects in question are visible at the maximum accommodation voltage;
E-the point at which the rays converge after passing the optical system of the eye.

Everything is important in the prevention of myopia, except:
A-tonic of the mode;
+B-sports events;
C-physical education;
D-stay in the fresh air;
E-proper alternation of work and rest.

Size физической рефракции взрослого человека с среднем составляет:
A-50 D;
+B-60 D;
C-70 D;
D-80 D;
E-90 D.

The average value of a newborn's physical refraction is:
A-50 D;
B-60 D;
C-70 D;
+D-80 D;
E-90 D.

Select the sign and name that correspond to the hypermetropia correction lenses:
A-convex –;
+B-convex +;
C-concav –;

D-concav +.

Hypermetropia of a high degree is called hyperopia.:
A-4.0 D;
+B-5.0 D;
C-6.0 D;
D-7.0 D;
E-8.0 D.

The further point of clear vision in hypermetropia is located:
A-at the final distance in front of the eye;
B-in infinity;
C-on the cornea;
+D-behind the eye;
E-on the retina.

The further point of clear vision in emmetropia is located:
A-5 m from the eye;
B-4 m from the eye;
C-3 m from the eye;
+D-in infinity;
E-behind the eye.

The further point of clear vision in myopia is located:
+A-at the final distance in front of the eye;
B-in infinity;
C-on the cornea;
D-behind the eye;
E-on the retina.

The further point of clear vision is called:
A-the point located in the center of the cornea;
+B-the point at which the eye is set when the accommodation is at rest;
C-a point located 1 m from the eye;
D-a point located at the level of the front main plane of the eye;
E--the point at which the eye is set when the accommodation voltage is applied.

Distantio pupillorum is the distance between:
A-centers of entry into orbits;
+B-centers of pupils;
C-corneal centers;
D-the outer edge of one cornea and the inner edge of the other;
E-the outer edge of one pupil and the inner edge of the other.

For changes in the macular area in myopia is not typical:
A-depigmentation;
B-bands of choroidal vessels;
+C-soft exudates;
D-atrophic foci;
E-hemorrhages.

For conservative therapy of myopia should be used:
A-calcium preparations;
B-compounds of phosphorus;
C-fish oil;
D-vitamins;
+E-all of the above.

To correct presbyopia in a 50-year-old patient with myopia in 2.0 DPTR. points with a force of b are required:
A-+ 1.0 DPTR;
B- - 1.0 DPTR;
C- + 2.0 DPTR;
D- - 2.0 DPTR;
+E-points are not needed.

To correct presbyopia, a 50-year-old emmetrope needs glasses with a force of b:
A- + 1.0 DPTR;
B- - 1.0 DPTR;
+C- + 2.0 DPTR;
D- - 2.0 DPTR;
E-glasses are not needed.

The accommodation mechanism is characterized by everything except:
A-changes in the shape of the lens;
B-reducing the depth of the front camera;
+C-increases the curvature of the anterior surface of the cornea;
D-lowering of the lens downwards;
E-constriction of the pupil.

Incorrect astigmatism is characterized by everything except:
A-jump transition from the refraction of one Meridian to the refraction of another;
B-the main meridians are not at right angles;
C-different sections of the same Meridian have different refraction;
+D-different meridians have the same refraction;
E-all of the above is true.

All lenses are used to determine the type and strength of clinical refraction, except:
A-spherical;
B-the scattering;
C-cylindrical;
D-collective;
+E-prismatic.

All methods can be used for surgical correction of myopia, except:
A-keratotomy;
+B-scleroplasty;
C-removal of the transparent lens;
D-Keratomileusis;
E-laser keratectomy.

For surgical correction of hyperopia, you can use everything except:
+ A-radial keratotomy;
B-hexagonal keratotomy;
C-deep thermocoagulation;
D-autokeratoplasty;
E-excimer laser keratoplasty.

To read a hypermetrope in 1 diopter at the age of 50 years, glasses in:
A- + 1.0 D;
B- + 2.0 D;
+C- + 3.0 D;
D- + 4.0 D;
D – + 5.0 D.

For reading emmetrope in 60 years requires lens in:
A- + 1.0 D;
B- + 2.0 D;
+C- + 3.0 D;
D- + 4.0 D;
E + 5.0 D.

If the main focus of the optical system of the eye is located behind the retina, then this type of refraction is called:
A-emmetropia;
B-ametropy;
C-myopia;
+D-hypermetropia;
E-astigmatism.

If the main focus of the optical system of the eye is located in front of the retina, then this type of refraction is called:
A-emmetropia;
B-ametropy;
+C-myopia;
D-hypermetropia;
E-astigmatism.

If the main focus of the optical system of the eye coincides with the retina, then this type of refraction is called:
+A-emmetropia;
B-ametropy;
C-myopia;
D-hypermetropia;
E-astigmatism.

The refractive power of a lens with a focal length is taken as 1 diopter:
A-100 m;
B-10 m;
+C-1 m;
D-10 cm;
E-1 cm.

To study the optical power of the cornea, use:
A-biomicroscopy;
+B-ophthalmometry;
C-exophthalmometry;
D-refractometry;
E-US-biometrics.

Objective methods for determining clinical refraction include:
A-selection of eyeglass lenses;
B-shadow sample;
C-refractometry;
+D-true B and C;
E-all of the above is true.

Complications of hypermetropic refraction include:
A-blepharitis;
B-spasm of accommodation;
C-conjunctivitis;

D-squint;
+E-all of the above.

Subjective methods for determining clinical refraction include:
+A-selection of eyeglass lenses;
B-shadow sample;
C-refractometry;
D-true B and C;
E-all of the above is true.

Which of the operations is not used to correct hypermetropia?
+A-radial keratotomy;
B-hexagonal keratotomy;
C-deep thermocoagulation;
D-autokeratometry;
E-photorefractive keratectomy.

What is the maximum value of anisometropia possible for point correction in an adult?
A-1.0 D;
+B-2.0 D;
C-3.0 D;
D-4.0 D;
E-6,0 D.

Clinical refraction:
A-characterizes the position of the main nodal point in relation to the retina;
B-describes the position of the focal point in relation to the cornea;
C-characterizes the position of the lens in relation to the retina;
D-characterizes the position of the retina in relation to the cornea;
+E-describes the position of the focus relative to the retina.

Clinical refraction in the resting state of accommodation is called:
A-full;
+B-static;
C-incomplete;
D-dynamic;
E-physical.

Clinical refraction has the following types:
A-divinatory and obscuration;
B-hysterical and anisometropic;
C-corneal and lens;
+D-static and dynamic;
E-vitreal and retinal.

Clinical refraction under the action of accommodation is called:
A-full;
B-static;
C-incomplete;
+D-dynamic;
E-physical.

Clinical refraction is:
A-is the sum of the optical power of the refractive media of the eye, expressed in diopters;
+B-the ratio between the optical power and the long axis of the eye;
C-refractive power of the cornea;
D-refractive power of the lens;

E-the main planes of the optical system.

Hypermetropia correction is performed:
A-scattering cylindrical lenses;
B-scattering spherical lenses;
+C-collective spherical lenses;
D-collective cylindrical lenses;
E-toric lenses.

The lens is:
+A-optical system bounded by refractive surfaces;
B-body tissue that absorbs light;
C-optical detail that extinguishes the image;
D-true B and C;
E-all of the above is true.

The medical indication for contact vision correction is:
A-high degree myopia;
B-progressive myopia;
C-astigmatism;
+D-anisometropia greater than 2.0 D;
D-presbyopia.

Moderate myopia is myopia:
A-from 1.0 to 4.0 D;
B-from 2.0 to 5.0 D;
+C-from 3.0 to 6.0 D;
D-from 4.0 to 7.0 D;
E-from 5.0 to 8.0 D.

The name of ametropia is any kind of clinical refraction, in addition to:
+A-emmetropia;
B-myopia;
C-hypermetropia;
D-astigmatism;
E-all of the above.

Assign eyeglass correction to a patient 60 years old, the distance between the centers of the pupils in the distance is 66 mm:
A-both eyes sphere -1.0 D, D.P. 66 mm (glasses for Dali);
B-both eyes scope + 1.0 D, D.P. 64 mm (glasses for permanent wear);
+C-both eyes scope +3.0 D, D.P. 64 mm (glasses for nearness);
D-all of the above;
E-none of the above.

An uncharacteristic symptom for myopia is:
A-atrophic changes in the macular area;
B-breaks of Bruch's membrane;
+Chyperemia of the optic disc;
D-spot Fuchs;
E-peripheral retinal dystrophy.

The normal value of aniseiconia that provides binocular vision is equal to:
+A-5-6%;
B-10-12%;
C-16-18%;
D-20-22%;

E-28-30%.

Keratotomy surgery is indicated when:
A-progressive myopia;
+B-incorrect astigmatism;
C-anisometropia;
D-afakii;
E-hypermetropia.

The main quality that distinguishes a cylindrical lens from a spherical one is:
+A-the presence of an axis-a plane in which parallel rays do not change direction;
B-the presence of a plane in which the rays are refracted,
C-ability to scatter light;
D-presence of the main focus in the form of a point;
E-ability to focus light.

The ophthalmometer is used for:
A-measuring the radius of curvature of the anterior surface of the cornea;
B-measurements of the refractive power of the anterior surface of the cornea;
C-measurements of corneal astigmatism;
D-only A and B;
+E-all of the above.

Dynamic refraction is understood as:
+A-the refractive power of the optical system of the eye relative to the retina under active accommodation;
B-the refractive power of the cornea;
C-refractive power of chamber moisture;
D-is the radius of curvature of the cornea;
E-radius of curvature of the lens.

This astigmatism is called correct when:
A-the refraction in the vertical Meridian is stronger;
B-refraction in the horizontal Meridian is stronger;
C-there is myopia in one Meridian, and emmetropic refraction in the other;
+D-the refraction does not change along the meridians;
E-hypermetropia in the horizontal Meridian is combined with emmetropia in the vertical.

The limits of changing the physical refraction of the eye are:
A-from 0 to 20 D;
B-from 21 to 51 D;
+C-from 52 to 71 D;
D-from 72 to 91 D;
E-from 91 to 100 D.

The advantage of contact lenses over glasses is:
A-wider field of view;
B-close to normal image size;
C-the cosmetic advantage;
D-possibility of correcting incorrect astigmatism;
+E-all of the above.

The refractive power of a lens with a focal length of 2.0 m is equal to:
A-4.0 D;
B-2.0 D;
C-1.0 D;
+D-0.5 D;

E-0.1 D.

The refractive power of a lens with a focal length of 0.25 m is equal to:
+A-4.0 D;
B-2.0 D;
C-1.0 D;
D-0.5 D;
E-0.1 D.

The refractive power of a lens with a focal length of 0.5 m is equal to:
A-4.0 D;
+B-2.0 D;
C-1.0 D;
D-0.5 D;
E-0.1 D.

The refractive power of a lens is called:
A-radius of curvature of the front surface of the lens;
+B-the inverse of the focal length;
C-radius of curvature of the back surface of the lens;
D-focal length of the lens;
E-thickness of the lens.

When accommodative asthenopia can be observed:
A-eye fatigue;
B-lacrimation;
C-burning and pain in the eyes;
D-headaches;
+E-all of the above symptoms.

With myopia, all phenomena can be observed, except:
A-reduced accommodative capacity;
+B-increased intraocular pressure;
C-light of mydriasis;
D-disorders of lens metabolism;
E-destruction of the vitreous body.

With reverse astigmatism:
A-the main meridians are in the oblique position;
B-the refractive power in the vertical Meridian is greater than in the horizontal one;
C-the optical force changes along the horizontal Meridian;
+D-the refractive power in the horizontal Meridian is greater than in the vertical one;
E-there is a change in the optical force along the vertical Meridian.

When selecting corrective glasses, the degree of hypermetropia indicates:
A-the weakest positive lens that provides the best visual acuity;
+B-the strongest positive lens that provides the best visual acuity;
C-the weakest negative lens that provides the best visual acuity;
D-the strongest negative lens that provides the best visual acuity;
E-degree cannot be determined.

When selecting corrective glasses, the degree of myopia indicates:
+A-the weakest positive lens that provides the best visual acuity;
B-the strongest positive lens that provides the best visual acuity;
C-the weakest negative lens that provides the best visual acuity;
D-the strongest negative lens that provides the best visual acuity;
E-degree cannot be determined.

In progressive myopia, a rational operation is:
A-keratomileusis;
+B-scleroplasty;
C-keratocoagulation;
D-removal of the transparent lens;
E-keratotomy.

With direct astigmatism:
A-the main meridians are in the oblique position;
+B-the refractive power in the vertical Meridian is greater than in the horizontal one;
C-the optical force changes along the horizontal Meridian;
D-the refractive power in the horizontal Meridian is greater than in the vertical one;
E-there is a change in the optical force along the vertical Meridian.

Signs of paralysis of accommodation are:
A-improvement of near vision, narrowing of the pupil;
+B-sharp deterioration of vision in the vicinity, dilation of the pupil;
C-increasing distance vision;
D-increase vision in the distance and near;
E-all of the above.

The causes of visual impairment in myopia are:
A-myopic refraction;
B-reduced accommodation;
C-pathological changes in the fundus;
+D-true A and C;
E-all of the above is true.

The cause of accommodation paralysis may be:
A-pathological processes in the eye socket;
B-intoxication;
C-instillation of atropine;
D-lesion of the oculomotor nerve nuclei;
+E-all of the above.

Simple hypermetropic astigmatism is when:
+A-in one Meridian refraction is emmetropic, and in the other hypermetropic;
B-emmetropic refraction in one Meridian, and myopic refraction in the other;
C-in both meridians, the refraction is hypermetropic, but of different magnitude;
D-in both meridians, the refraction is myopic, but of different magnitude;
E-in one Meridian refraction is myopic, and in the other hypermetropic.

Simple myopic astigmatism is when:
A-in one Meridian refraction is emmetropic, and in the other hypermetropic;
+B-emmetropic refraction in one Meridian and myopic refraction in the other;
C-in both meridians, the refraction is hypermetropic, but of different magnitude;
D-in both meridians, the refraction is myopic, but of different magnitude;
E-in one Meridian refraction is myopic, and in the other hypermetropic.

Contraindications to the appointment of contact lenses are:
A-blepharitis;
B-mabait;
C-halazion;
D-barley;
+E-all of the above.

Contraindications to the appointment of contact lenses are:
+A-violation of the corneal epithelium;
B-hypertension;
C-eye surgery history;
D-history of Central retinal vein thrombosis;
E-all of the above.

Contraindications to keratotomy surgery are all but:
A-inflammatory diseases of the eyeball;
B-corneal dystrophy;
+C-incorrect astigmatism;
D-chalazion (Gradina);
E-progressive myopia.

The manifestation of presbyopia is everything except:
A-distance of the nearest point of clear vision;
B-relaxation of accommodation;
C-the image of small objects located at a close distance seems blurry;
D-loss of lens elasticity;
+E-reducing the strength of the ciliary muscle.

There are the following types of astigmatism:
A-simple, complex, mixed;
B-straight, reverse, with oblique axes;
C-correct, incorrect, corneal, lens;
D-correct A and B;
+E-all of the above.

There are the following types of hypermetropia:
A-full;
B-explicit;
C-latent;
D-true B and C;
+E-everything is true.

There are the following types of clinical refraction:
A-desvinculado and obscuration;
B-hysterical and anisometropic;
C-corneal and lens;
D-vitreal and retinal;
+E-static and dynamic.

Scattering lenses can be:
A-spherical;
B-cylindrical;
C-toric;
D-biconvex;
+E-all of the above is true.

The Refractometer is used for:
A-objective determination of the refraction of the eye;
B-determination of the spherical and astigmatic component of refraction;
C-establishing the main sections of the astigmatic eye;
D-correct B and C;
+Eall of the above.

Refraction of an optical system is called:

A-a state closely related to convergence;
+B-refractive power of the optical system, expressed in diopters;
C-the ability of an optical system to neutralize light passing through it;
D-reflection of the incident rays by the optical system;
E-a system of lenses located at a certain distance from each other.

The earliest clinical manifestation of myopia is:
A-false posterior staphyloma;
B-true posterior staphyloma;
C-a spot of Fuchs;
D-retinal hemorrhages;
+E-myopic cone.

Complex hypermetropic astigmatism, this is when:
A-in one Meridian refraction is emmetropic, and in the other hypermetropic;
B-emmetropic refraction in one Meridian, and myopic refraction in the other;
+C-in both meridians, the refraction is hypermetropic, but of different magnitude;
D-in both meridians, the refraction is myopic, but of different magnitude;
E-in one Meridian refraction is myopic, and in the other hypermetropic.

Complex myopic astigmatism, this is when:
A-in one Meridian refraction is emmetropic, and in the other hypermetropic;
B-emmetropic refraction in one Meridian, and myopic refraction in the other;
C-in both meridians, the refraction is hypermetropic, but of different magnitude;
+D-in both meridians, the refraction is myopic, but of different magnitude;
E-in one Meridian refraction is myopic, and in the other hypermetropic.

Mixed astigmatism is when:
A-in one Meridian refraction is emmetropic, and in the other hypermetropic;
B-emmetropic refraction in one Meridian, and myopic refraction in the other;
C-in both meridians, the refraction is hypermetropic, but of different magnitude;
D-in both meridians, the refraction is myopic, but of different magnitude;
+E-in one Meridian refraction is myopic, and in the other hypermetropic.

Accommodation spasm is a condition:
A-in which myopia is detected in natural conditions;
B-in which cycloplegia reveals emmetropia, hypermetropia, or less than natural myopia;
C-which characterizes the overall refraction of the eye;
+D-only A and B;
E-all of the above.

The average value of the refractive power of the adult cornea is equal to:
A-23 D;
B-30 D;
+C-43 D;
D-50 D;
E-53 D.

The degree of anisometropy determines:
A-refraction of the eye with stronger optics;
B-difference in refraction of a weak eye compared to emmetropia;
C-the amount of refraction of both eyes;
+D-the difference of refraction in the two eyes;
E-there is no correct answer.

The term " hyperopia" means:
A-good vision in the distance and bad at close range;

+B-better vision in the distance than near;
C-good vision at close and far distances;
D-good vision at a distance and no vision at a close distance;
E-better vision at near than at distance.

Nodal points are called:
+A-points, passing which the rays are not refracted;
B-the point through which the rays are deflected to the maximum;
C-points where all the refracted rays are collected;
D-points from which all rays that enter the eye come;
E-the point at which it starts breaking.

Physical refraction is:
+A-the sum of the optical power of the refractive media of the eye, expressed in diopters;
B-the ratio between the optical power and the long axis of the eye;
C-refractive power of the cornea;
D-refractive power of the lens;
E-the main planes of the optical system.

The physiological mechanism of accommodation is that:
A-ciliary muscle contracts and the zonal fibers relax;
B-the degree of tension of the lens capsule is weakened
C-the lens becomes more convex and its refractive power increases;
D-only A and C;
+E-all of the above.

Physical refraction of the eye is called:
A-state is closely associated with the convergence;
+B-refractive power of the optical system of the eye, expressed in diopters;
C-the ability of the optical system of the eye to neutralize the light passing through it;
D-reflection of the optical system of the eye of the rays falling on it;
E-a system of lenses located at a certain distance from each other.

The focal length is called:
A-distance from the subject under consideration to the main focus;
B-distance from the front surface of the cornea to the main focus;
C-distance from the anterior lens capsule to the main focus;
+D-distance from the node point to the main focus;
E-distance from the posterior lens capsule to the main focus.

The focus of the lens is called:
A-the center of its spherical surface;
B-the center of its flat surface;
C-the center of its cylindrical surface;
D-the center of its toric surface;
+E-the point where the beam of parallel rays falling on the lens is collected.

A person suffering from farsightedness can see well into the distance when:
A-squinting eyes;
B-pressing on the eye;
+C-use accommodation;
D-cycloplegia;
E-all of the above.

PATHOLOGY OF THE EYE SOCKET

In syndrome of the upper orbital fissure symptoms include all except:
A-ptosis;
+B-myosis;
C-mydriasis;
D-ophthalmoplegia;
E-exophthalmia.

In Horner's syndrome includes all the symptoms except:
A-enophthalmia;
B-narrowing of the eye gap;
C-myosis;
+D-mydriasis;
E-hypotension of the eyeball.

The occurrence of acute inflammatory disease of the orbit may be associated with:
A-frontitis;
B-sinusitis;
C-ethmoidiis.;
D-osteomyelitis of the upper jaw;
+Eall of the above.

Diffuse acute inflammation of the orbital fiber is:
A-osteoperiostitis;
+B-phlegmon;
C-abscess;
D-boil;
E-barley.

Tenonitis is characterized by all symptoms except:
A-feelings of pressure in the eye socket;
+B-presence of purulent discharge;
C-pain when moving eyes;
D-exophthalmos;
E-restriction of mobility of the eye.

A benign tumor of the eye socket is:
A-chloroma;
B-sarcoma
+C-cholesteatoma;
D-neuroblastoma;
E-sympathoblastoma.

Inflammatory diseases of the orbit include:
A-osteoperiostitis;
B-phlegmon;
C-tenant;
+D-all right;
E-true A and B.

Benign secondary tumors of the orbit include:
A-fibroids;
B-osteomas;
C-lipomas;
D-chondromes;
+E-all of the above.

Primary benign tumors of the orbit include:
A-angiomas;
B-meningiomas;
C-gliomas;
D-mixed tumors of the lacrimal gland;
+E-all of the above.

The reasons causing periostitis of the orbit, are:
A-diseases of the paranasal sinuses;
B-dacryocystitis;
C-boils of the skin of the face;
D-dental caries;
+E-all of the above is true.

Clinical signs of orbit osteoperiostitis:
A-exophthalmos;
B-restriction of mobility of the eyeball;
C-pain when pressing;
D-edema of the eyelid;
+E-all of the above is true.

False exophthalmos is observed in:
A-eye socket injury;
+B-unilateral high myopia;
C-paralysis of the rectus muscles;
D-unilateral hydrophthalmos;
E-all of the above.

The most characteristic signs of a malignant tumor of the orbit:
A-restriction of the mobility of the eyeball;
B-relatively rapid decline in visual function;
C-edema of the eyelids and surrounding eye tissues;
D-exophthalmos;
+E-all of the above.

The most common cause of orbital phlegmon in adults is:
A-acute respiratory diseases;
B-traumatic injuries of the orbital bone walls;
+C-inflammatory process in the paranasal sinuses;
D-unsuccessful operations on the paranasal sinuses;
E-chronic infections.

Emergency treatment of phlegmon of the orbit:
+A-opening and draining the orbit;
B-cold;
C-UHF;
B-all of the above.

The main methods of treatment of phlegmon of the orbit are:
A-wide opening of the eye socket is already in the stage of serous edema;
B-appointment of vitamin drops;
C-administration of large doses of antibiotics;
D-only B and C;
+E-only A and B.

When phlegmon of the orbit is observed:

A-edema and hyperemia of the eyelids;
B-conjunctival chemosis;
C-ophthalmoplegia;
+D-all of the above;
E-only A and B.

The causes of unilateral exophthalmos are:
A-retrobulbar hematoma;
B-tumors of the orbit;
C-phlegmon of the orbit;
D-pseudotumor;
+E-all of the above.

Pulsating exophthalmos is characteristic of:
A-secondary tumors of the orbit;
B-metastatic tumors of the orbit;
C-piocelle;
+D-vascular disorders in the orbit;
E-mucocele.

Upper orbital fissure syndrome includes all symptoms except:
A-exophthalmos;
B-ptosis;
+C-myosis;
D-midriasis;
E-ophthalmoplegia.

Phlegmon of the orbit can be caused by:
A-spread of infection from adjacent anatomical structures;
B-spreading the infection metastatically from a separate focus;
C-penetrating wound of the orbit with the presence of a foreign body;
+D-all of the above;
E-none of the above.

PATHOLOGY OF THE EYELIDS

Atonic eversion of the eyelids is manifested:
A-decreased elasticity of the skin;
B-sagging of the century, down;
C-hypertrophy of the conjunctiva;
D-lacrimation;
+E-all of the above.

Blepharitis is:
A-acute purulent inflammation of the eyelids;
B-chronic proliferative inflammation of the cartilage;
C-purulent inflammation of the hair SAC;
+D-inflammation of the edge of the eyelid;
E-purulent inflammation of the subcutaneous tissue of the eyelid.

The symptom complex of simple blepharitis does not include:
+A-the presence of purulent crusts on the edges of the eyelids;
B-itch;
C-the presence of foamy discharge in the corners of the eye slit;
D-redness of the edges of the eyelids;
E-frequent flashing.

In a quiet position the free edge of the upper eyelid:
A-does not reach the edge of the cornea;
B-located on the edge of the cornea;
C-covers the cornea by 1 mm;
+D-covers the cornea by 2 mm;
E-reaches the upper edge of the pupil.

Dysfunction of the meibomian glands in blepharitis is expressed in:
A-in hypersecretion of glands;
B-hyposecretion of glands
C-in the failure of elimination of the secret;
+D-true A and B;
E-true B and C.

In the etiology of blepharitis it does not matter:
A-uncorrected refractive errors;
B-worm infestations;
C-diabetes mellitus;
D-diseases of the gastrointestinal tract;
+E-diseases of the cardiovascular system.

The causative agent of angular blepharitis is:
A-Staphylococcus;
+B-diplobacillus Morax-Axenfeld;
C-Streptococcus;
D-Bacillus Koch-weeks;
E-herpes simplex virus.

Possible complications of complete or almost complete unilateral ptosis are:
A-amblyopia;
B-squint;
C-atrophy of the optic nerve;
+D-only A and B;
E-all of the above.

Congenital ptosis is caused by:
A-spasm;
+B-inferiority of the development of the muscle that raises the upper eyelid;
C-paresis of the branches of the trigeminal nerve;
D-spasm of the circular eyelid muscle;
E-paralysis of the upper rectus muscle of the eye.

Meet all kinds of blepharitis, in addition to:
A-ulcer;
B-angular;
C-scaly;
D-simple;
+E-inflammatory.

The eversion of the century can be of any character, except:
A-spastic;
B-paralytic;
+C-dermatogenic;
D-atonic;
E-scar.

The eversion of the eyelid is accompanied by all the listed symptoms, except:
+A-all listed without exception;
B-lag of the eyelid from the eyeball;
C-the sagging down of the century;
D-exposure of the conjunctival surface of the eyelid;
E-sharp hypertrophy of the conjunctiva.

Squeezing barley can lead to:
A-to the development of the phlegmon of the orbit;
B-sinus-thrombosis;
C-meningitis;
D-true A and B;
+E-all of the above is true.

Hemangiomas of the eyelids have the following types:
A-capillary;
B-all but E;
C-the cavernous;
+D-all listed;
E-racemous.

Demodex blepharitis is called:
A-lice;
B-fleas;
C-mosquitoes;
+D-ticks;
E-infusoria.

The dermoid of the eyelid contains:
A-sebaceous and sweat glands;
B-fat;
C-the hair;
D- only B and C;
+E-all of the above.

To restore the function of the cartilage glands, the most rational is:
+A-massage of the eyelids;
B-toilet age;
C-douching the edges of the eyelids;
D-applying tampons with antibiotics to the edges of the eyelids;
E-ointment applications.

The clinical picture of lagophthalmos is characterized by everything except:
A-incomplete closing of the eye gap;
B-atony of the lower eyelid;
C-lacrimation;
+B-omission of the upper eyelid;
E-drying of the eyeball.

For the clinical picture of chalazion characterized by all except:
A-the presence of neoplasms in the thickness of the eyelid;
+B-pain on palpation;
C-mobility of the skin over chalazion;
D-adhesions with cartilage;
E-translucency from the conjunctiva.

For the treatment of blepharochalasis, you can use:
+A-surgical treatment;
B-physiotherapy treatment;
C-administration of corticosteroids;
D-true A and B;
E-all of the above is true.

For the treatment of angular blepharitis, it is most appropriate to use:
A-sulfacyl-sodium solution;
B-solution of chloramphenicol;
C-suspension of hydrocortisone;
D-sodium chloride solution;
+E-solution of sulphate of zinc.

To prevent damage to the cornea by wrapped or incorrectly growing lashes, you can apply everything except:
A-pulling the eyelid with a band-aid;
+B-cutting incorrectly growing eyelashes;
C-surgical treatment;
D- defervesce;
E-you can apply everything, without exception.

If pus is squeezed out of the excretory ducts of the tarsal glands during the eyelid massage, this is:
+A-meibomium blepharitis;
B-angular blepharitis;
C-ulcerative blepharitis;
D-scaly blepharitis;
E-simple blepharitis.

Significant swelling of the eyelids and the appearance of itchy blisters on the skin may be accompanied by:
A-urticaria of the eyelid skin;
B-herpes zoster;
C-toxicoderma;
+D-true A and C;
E-all of the above is true.

Changes to the eyelids in inflammatory edema include:
A-hyperemia of the eyelid skin;
B-increased skin temperature;
C-pain on palpation;
+D-all of the above is true.

Eyelid changes in non-inflammatory edema:
A-more often two-way;
B-there is no tenderness to palpation;
C-the skin of normal color;
D-may be combined with leg swelling, ascites;
+E-all of the above is true.

The initial moments for the development of skin cancer of the eyelids can be:
A-wart injuries;
B-barley;
C-the boils;
D-birthmarks;
+E-all of the above**.**

Blepharitis can lead to:
A-vitamin deficiency;
B-uncorrected refractive errors;
C-worm infestations;
D-occupational hazards;
+E-all of the above is true.

Inflammatory diseases of the eyelids include everything except:
+A-ptosis;
B-abscess;
C-blepharitis;
D-barley;
E-hailstones.

The congenital pathology of the eyelid includes everything except:
A-ablepharia;
+B-xanthelasma;
C-colobomas;
D-ankyloblepharon;
E-epicanthus.

Clinical changes of the eyelids in inflammatory edema include:
A-hyperemia of the eyelid skin;
B-increased skin temperature;
C-pain on palpation;
D-a narrowing of the palpebral fissure;
+E-all of the above is true.

As a rule, the cause of blepharitis is not:
+A-hypertension;
B-worm infestation;
C-allergic condition;
D-anemia;
E-endocrine pathology.

Classification of ptosis includes all its types, except:

A-innate;
+B-inflammatory;
C-one-way;
D-complete;
E-purchased.

Clinical signs of emphysema of the eyelids include:
A-crepitation;
B-edema;
C-integrity of the skin;
+D-all of the above is true.

Clinic of the disease. In a limited area along the edge of the eyelid, there is a noticeable swelling, accompanied by sharp pain and swelling of the conjunctiva and the skin of the eyelid. After 2-3 days, a purulent pustule was formed. After 4 days, the abscess was opened. This:
A-toxicoderma of the eyelid skin;
+B-barley;
C-meibomitis blepharitis;
D-phlegmon of the century;
E-chalazion.

The clinical manifestation of scaly blepharitis is:
A-redness of the eyelids;
B-thickening of the edges of the eyelids;
C-painful itching in the eyelids;
D-the presence of gray scales at the roots of the eyelashes;
+E-all of the above is true.

Contagious mollusc of the eyelid is characterized by:
A-the appearance at the edge of the century of a mollusk resembling a bivalve shell;
B-the presence of ulcers on the edges and skin of the eyelids with covered edges;
C-the presence of hard nodules in the skin, resembling pearls in appearance;
D-the appearance of dusty eyelashes and the presence of parasites in the hair follicles;
+E-the appearance of single or multiple nodules on the skin with a funnel-shaped depression in the center.

Leucosarcoma of the eyelid can make an impression:
A-lymphangiomas;
B-hemangiomas;
+C-amyloid;
D-melanosarcoma;
E-skin cancer.

Treatment is not required:
+A-small congenital bilateral ptosis;
B-unilateral ptosis;
C-traumatic incomplete ptosis;
D-bilateral incomplete ptosis;
E-ptosis caused by paralysis of the levator.

Madrasis called:
A-incorrect growth of eyelashes;
B-thickening of the edge of the eyelid;
+C-alopecia of the edge of the century;
D-ulceration of the edge of the eyelid;
E-presence of crusts at the edge of the eyelid.

Methods of treatment of trichiasis are:

A-removal of the lashes;
B-plastic surgery;
+C-both;
D-neither one nor the other.

The most dangerous consequence of eyelid inversion is:
A-constant lacrimation;
B-trichiasis;
C-chronic conjunctivitis;
+D-corneal damage;
E-phlegmon of the century.

The most common form of skin cancer on the eyelids is the following:
A-meibomian;
+B-superficial ulcer;
C-spinocellular;
D-infiltrative;
E-warty.

The presence of flat yellow-lemon spots on the skin of the eyelids is a sign:
A-lymphangiomas;
B-lipomas;
+C-xanthelasma;
D-fibroids;
E-nevus.

The nevus of the eyelid should be excised or subjected to diathermocoagulation due to the fact that it can:
A-increase in size;
+B-malignantly reborn;
C-to capture both the eyelids;
D-ulcerate;
E-being a cosmetic defect.

Eyelid burns may be the cause:
+A-scar eversion of the eyelids;
B-paralytic eversion of the eyelids;
C-atonic eversion of the eyelids;
D-spastic eversion of the eyelid;
E-all of the above.

The main danger of pigment xeroderma of the eyelids is:
A-pronounced dryness of the eyelid skin;
B-atrophic changes in the eyelid skin;
C-ulceration of the eyelids;
D-papillomatous growths on the eyelids;
+E-malignancy.

The difference between emphysema of the eyelids and inflammatory edema is characterized by:
A-the presence of hyperemia of the eyelid skin;
B-pain on palpation of the eyelids;
+C-the presence of crepitation;
D-all of the above;
E-only A and B.

Focal accumulation of cholesterol in the skin of the eyelids is called:
A-dermoid;

B-nevus;
C-lymphangiomas;
+D-xanthelasma;
E-lipomas.

Indications for opening an abscess of the eyelid are:
+A-appearance of fluctuation;
B-pronounced hyperemia of the eyelids;
C-eyelid tissue seal;
D-pain on palpation;
E-spread of edema on the face tissue.

For an abscess of the eyelid, it is necessary:
A-prick the infiltrate with antibiotics;
B-assign UHF, dry heat;
C-in the presence of fluctuations is to open and drain the abscess;
+D-true A and C;
E-all of the above is true.

When allergic dermatitis is observed:
A-edema of the eyelids;
B-narrowing of the eye gap;
C-itch;
D-the appearance of bubbles on the skin, which are opened with the release of serous fluid;
+E-all of the above is true.

When blepharochalasis is observed:
A-xerosis of the cornea;
B-decrease in visual acuity due to the omission of the century;
+C-cosmetic discomfort;
D-all of the above;
E-correct A and B.

With a pronounced eversion of the eyelids, the most effective operation is to:
+A-Kunt-Shimanovsky;
B-Sapezhko;
C-Ivanov;
D-Filatov;
E-Mc Reynolds.

If you are affected by herpes simplex on the skin of the eyelids appear:
A-small pustules;
B-rashes in the form of white spots with a red Corolla around;
C-small sores covered with a greasy coating;
D-gray-white film, hardly separated from the skin;
+E-small transparent bubbles.

When lagophthalmos may occur:
A-erosion of the cornea due to trauma to the eyelashes;
+B-corneal xerosis;
C-exophthalmos;
D-dacryoadenitis;
E-all of the above.

When lagophthalmos is necessary to carry out:
A-instillation of disinfectant drops;
B-use of eye ointments;

C-some cases blefaroplastia;
+D-all of the above;
E-only A and B.

In the treatment of barley is unacceptable:
A-cauterization with a solution of diamond green;
B-UHF therapy;
+C-squeezing barley;
D-instillation in the eye of sulfonamides;
E-conducting autohemotherapy.

When the skin of the eyelids is affected by herpes zoster, it is observed:
A-hyperemia and edema of the eyelids;
B-the appearance of sharply hyperemic areas and bubbles, edema of the eyelid against the background of an increase in body temperature;
C-against the background of an increase in body temperature, the appearance of several nearby lying bubbles with a transparent liquid;
+D-vesicular eruptions that occupy one half of the forehead, arranged in a row;
E-extensive purulent blisters on the eyelids.

For eyelid wounds tissue regeneration:
+A-high;
B-low;
C-does not differ significantly from tissue regeneration in other areas of the face;
D-lower than other areas of the face.

In case of trichiasis, it is necessary to carry out:
A-eyelash epilation;
B-diathermocoagulation of the eyelashes;
C-eyelid surgery;
+D-all of the above is true.

When persistent blepharitis is shown:
A-massage of the eyelids;
B-the sessions UHF;
C-plastic age;
+D-all of the above is true.

When scaly blepharitis does not happen:
A-narrowing of the eye gap;
+B-ulceration of the edges of the eyelids;
C-the presence of scales between the lashes;
D-hyperemia of the edges of the eyelids;
E-thickening of the edges of the eyelids.

In the ulcerative form of skin cancer of the eyelids, metastasis may occur in:
A-eyeball;
B-brain;
C-the lungs;
+D-regional lymph nodes;
E-to all listed entities.

In ulcerative blepharitis, changes in the eyelids are of a nature:
+A-bleeding of ulcers with a purulent coating;
B-redness of the edges of the eyelids with the presence of scales;
Cinversion of eyelids;
D-eversion of the eyelid;

E-all of the above.

When barley from physiotherapy should be recommended:
A-ultraviolet irradiation;
B-ultra-high frequency currents;
C-electrophoresis with deion;
+D-all of the above is true.

Signs of trichiasis are:
A-blepharospasm;
B-lacrimation;
C-growth of eyelashes towards the eye;
+D-all of the above;
E-only B and C.

The manifestation of the defeat of the eyelids with chickenpox is not:
A-pustules at the edges of the eyelids;
B-sores with a greasy coating;
+C-hemorrhages at the corners of the eyelids;
D-cyanotic age;
E-enlargement of the anterior lymph glands.

There are the following types of inversion of the eyelids:
A-spastic;
B-scar;
C-bulbar;
D-congenital;
+E-all of the above.

Erysipelas of the eyelid skin is characterized by:
A-hyperemia and edema of the eyelids;
+B-the appearance of sharply hyperemic areas of the eyelid skin and blisters, swelling of the eyelids against the background of increased body temperature;
C-against the background of an increase in body temperature-the appearance of several rows of lying bubbles with a transparent liquid;
D-vesicular eruptions that occupy one half of the forehead, arranged in a row.

Scar eversion of the eyelids develops as a result of:
A-injuries;
B-burns of the eyelids;
C-anthrax;
D-tuberculosis lupus;
+E-all listed reasons.

Scarring of the eyelids can develop due to all of these reasons, except:
A-diphtheria of the conjunctiva;
B-trachoma;
C-burns of the skin;
D-pemphigus conjunctiva;
+E-all causes without exception.

Symptoms of upper eyelid ptosis are:
A-covering the pupil area with the upper eyelid;
B-almost complete or complete immobility of the upper eyelid;
C-narrowing of the eye gap;
+D-all of the above;
E-only A and B.

Spastic inversion of the eyelids develops when:
+A-blepharospasm;
B-trachoma;
C-exophthalmos;
D-blepharite.

The impetus for the activation of the herpes simplex virus can be everything except:
A-feverish diseases;
+B-angina attack;
C-intestinal intoxication;
D-taking certain medications;
E-menstruation.

Traumatic edema of the eyelids is accompanied by:
+A-extensive subcutaneous hemorrhages with a bluish tinge;
B-blepharospasm and lacrimation;
C-itch;
D-all of the above;
E-only B and C.

Trichiasis is called:
+A-abnormal growth of eyelashes;
B-thickening of the edge of the eyelid;
C-alopecia of the edge of the century;
D-ulceration of the edge of the eyelid;
E-presence of crusts at the edge of the eyelid.

Chronic proliferative inflammation of the cartilage around the meibomian gland is:
A-barley;
+B-chalazion;
C-abscess of the century;
D-domestic barley;
E-blepharitis.

What determines the easy occurrence and rapid spread of edema, bruising and local inflammatory processes of the eyelids?
A-great mobility of the eyelids;
+B-the presence of loose hydrophilic fiber under the skin;
C-the presence of dense cartilage in the thickness of the eyelid;
D-presence of intermuscular slits;
E-cartoonvalley dense fascia prevents the penetration process in depth.

Scaly blepharitis is characterized by:
A-redness of the edges of the eyelids;
B-thickening of the edges of the eyelids;
C-painful itching in the eyelids;
D-the roots of the lashes are covered with dry scales;
+E-all of the above.

PATHOLOGY OF CONJUNCTIVA

Adenovirus conjunctivitis has all the listed forms, except:
A-catarrhal;
B-follicular;
+C-vesicular-ulcer;
D-film;
E-without exception.

Allergic conjunctivitis:
A-gives a picture of "cobblestones";
B-gelatinous limbal infiltrate is detected;
C-there is intense itching;
D-is stopped by instillations of steroids;
+E-all of the above is correct.

The patient complains of a sourness of the right eye in the morning, a feeling of blockage of the right eye, redness, itching. Objectively: OD-small edema of the eyelids, conjunctival injection of the eyeball, a moderate amount of yellow discharge and conjunctival cavity, cornea, anterior chamber, transparent media and fundus without pathology, visual acuity of both eyes is 1.0. Your preliminary diagnosis:
A-barley;
B-blepharitis;
C-keratitis;
D-sclerite;
+E-conjunctivitis.

The following symptom is not observed in the clinical picture of trachoma:
+A-films on the conjunctiva of the upper eyelid;
B-the conjunctiva of the transitional folds in the form of a cocks comb;
C-follicles in the form of deep-seated gelatinous-turbid grains;
D-hypertrophy of the papillae;
E-thickening of the adenoid layer of the conjunctiva.

In the treatment of medicinal conjunctivitis, it is not advisable to use:
A-topically in a 0.1% solution of dexamethasone;
B-inside 10% calcium chloride solution;
C-topically-0.5% hydrocortisone ointment;
+D-locally – 0.25% solution of tetracaine;
E-inside tavegil.

Currently, for the prevention of gonorrheal conjunctivitis used instillation:
A-2% silver nitrate solution;
B-penicillin solution;
+C-20% sulfacyl-sodium solution;
D-1% gentamicin solution;
E-solution of potassium permanganate 1: 5000.

In the first days of the disease gonoblennorrhea the discharge has the character of:
A-scanty viscous mucus;
+B-serous with blood admixture;
C-turbid liquid with the cereal;
D-a viscous cream-looking pus;
E-serous-purulent fluid.

During trachoma distinguish:
A-one stage;

B-two stages;
C-three stages;
+D-four stages;
E-five stages.

The causative agent diplobacillus (which restores) conjunctivitis is:
A-the tubercle Bacillus;
B-Bacillus Koch-Weeks;
+C-diplobacillus Morax-Axenfeld;
D-Neisser's gonococcus;
E-pneumococcus Frenkel-Wexelbaum.

The causative agent of acute epidemic conjunctivitis is:
A-the tubercle Bacillus;
+B-Bacillus Koch-Weeks;
C-diplobacillus Morax-Axenfeld;
D-Neisser's gonococcus;
E-pneumococcus Frenkel-Wexelbaum.

The causative agent of trachoma is:
A-adenoviruses;
B-streptococcus;
B-enteroviruses;
+G-chlamydia;
D-pneumococcus.

Herpetic conjunctivitis is characterized by:
A-one-sidedness of the process;
B-long sluggish flow;
C-the precipitation of bubbles on the skin of the eyelids;
D-involvement in the corneal process;
+E-all of the above.

Diphtheria conjunctivitis is characterized by all symptoms except:
A-edema, hyperemia, soreness and compaction of the eyelids;
B-detachable in the form of a turbid liquid with the cereal;
B-the presence of gray, hard-to-separate films on the conjunctiva;
+G-presence of chlamydia in the conjunctival SAC;
D-formation of stellate scars.

For adenoviralmediated fever unusual:
+A-occurrence of the disease in the summer;
B-the presence of catarrhal phenomena of the upper respiratory tract;
C-the presence of a very poor Muco-purulent discharge;
D-reduced corneal sensitivity;
E-contagiousness of the disease.

The following clinical forms are typical for herpetic conjunctivitis:
A-catarrhal;
B-follicular;
C-vesicular-ulcerative;
+D-all listed;
E-only B and C.

For the treatment of gonoblennorrhea impractical to apply:
A-washing the conjunctival SAC with a solution of potassium permanganate;
B-instillation of a solution of sodium salt of benzylpenicillin;

C-instillation of 30% sulfacyl-sodium solution;
D-laying tetracycline ointment for the eyelids;
+E-instillation of 1% pilocarpine solution.

For the treatment of diphtheria conjunctivitis, all but:
A-anti-diphtheria serum;
B-broad-spectrum antibiotics;
C-vitamins;
D-washings of the conjunctival SAC;
+E-all of the above without exception.

For the treatment of trachoma is not used:
+A-penicillin;
B-tetracycline;
C-erythromycin;
D-oletetrin;
E-dilimizin.

Acute infectious conjunctivitis is characterized by all symptoms except:
A-feelings of eye blockage;
+B-pericorneal eye injection;
C-conjunctival injection of eyes;
D-detached from the eye;
E-proliferation of papillae and follicles.

For pneumococcal conjunctivitis, all symptoms are characteristic, except:
A-presence of catarrhal phenomena;
B-abundant muco-purulent discharge;
+C-occurrences in the summer-autumn period;
D-presence of easily removable films on the conjunctiva;
E-sharp hyperemia of the conjunctiva.

Trachoma can be characterized by all complaints except:
A-the absence of subjective complaints;
B-heaviness in the eyelids;
C-feelings of clogged eyes;
D-Muco-purulent discharge;
+E-all of the above is possible.

Tuberculous-allergic conjunctivitis phlyctenules characterized by all except:
A-photophobia;
B-lacrimation;
+C-all symptoms, without exception;
D-blepharospasm;
E-mixed injection.

The incubation period for adenovirus conjunctivitis is equal to:
A-1-2 days;
B-2-3 days;
C-4-5 days;
+D-1 week;
E-up to 2 weeks.

The incubation period for gonoblennorrhea is:
A-1-2 days;
+B-2-3 days;
C-4-5 days;

D-1 week;
E-up to 2 weeks.

To autoimmune (allergic) conjunctivitis includes the:
A-medicinal conjunctivitis;
B-pollinozy conjunctivitis;
C-spring Qatar, pemphigus;
D-tuberculous-allergic conjunctivitis phlyctenules;
+E-all the above.

Complications of trachoma include:
A-trichiasis maduros;
B-entropion;
C-symblepharon;
B-xeroz;
+E-all of the above is true.

What drops should be instilled into the eye to detect pericorneal injection of the eyeball?
A-sulfacyl-narium solution;
+B-solution of adrenaline;
C-pilocarpine solution;
D-solution of atropine;
E-any of the following.

Which of these drugs is inappropriate to prescribe for the treatment of pneumococcal conjunctivitis?
A-30% sulfacyl-sodium solution;
B-0.3% tobrex solution;
+C-4% taufon solution;
D-1% tetracycline ointment;
E-1% syntomycin emulsion.

Clinically distinguish all kinds of gonoblennorrhea except:
A-gonoblennorrhea newborns;
B-gonoblennorrhea children;
+C-gonoblennorrhea teens;
D-gonoblennorrhea adults.

Medicines for conjunctivitis pollinose can be all except:
+A-solution of atropine;
B-dexamethasone solvent;
C-surge of adrenaline;
D-solution lecrolyn;
E-solution of prednisolone.

Treatment for spring catarrh includes:
A-climate change;
B-treatment with corticosteroids;
C-treatment with gamma globulin;
+D-all of the above is true.

A young man undergoing antibiotic therapy for gonorrheal urethritis sought advice from an eye doctor. After examining the patient, the doctor diagnosed gonorrhea conjunctivitis. What is the most characteristic symptom of this disease?
+A-copious purulent discharge;
B-scanty mucous discharge;
C-redness of the mucous membrane at the corners of the eye slit.

D-pericorneal injection;
E-the presence in the cornea of the conflict.

Which of these drugs is inappropriate for the treatment of adenovirus epidemic keratoconjunctivitis?
A-0,25% oxolinic ointment;
B-interferon in drops;
+C-1% tetracycline ointment;
D-4% solution of poludan;
E-0,1% solution of oxoline.

The presence of large flattened papillary growths on the conjunctiva of the upper eyelid, resembling a cobblestone pavement, is typical for:
A-drug conjunctivitis;
+B-spring Qatar;
C-acute epidemic conjunctivitis;
D-trachoma;
E-diphtheria of the conjunctiva.

A non-specific complaint for conjunctivitis is:
A-detachable from the eye;
B-feeling of a foreign body under the eyelid;
C-gluing lashes in the morning;
D-redness of the eye;
+E-pericorneal injection.

Uncharacteristic for acute epidemic conjunctivitis:
A-the presence of a discharge from the eye;
B-severe conjunctival edema in the area of the lower transition fold;
+C-the presence of easily removable films on the conjunctiva;
D-malaise, fever;
E-petechial hemorrhages in the conjunctiva.

The General symptoms of epidemic conjunctivitis are not accompanied by:
A-general malaise;
B-by increasing the temperature;
C-runny nose;
D-headaches;
+E-is accompanied by all symptoms without exception.

A complication and consequence of trachoma is not:
+A-ectropion;
B-entropion;
C-pannus;
D-trichiasis;
E-symblepharon.

The main danger of gonoblennorrhea is:
A-the patient's gonorrhea;
B-formation of rough scars in the conjunctiva;
C-contamination of the patient;
D-disseminirovannogo the occurrence of chorioretinitis;
+E-lesion of the cornea.

The main factor complicating the course of epidemic adenovirus keratoconjunctivitis is:
+A-multiple point infiltrates and corneal opacities;
B-high contagiousness of the disease;

C-hyperemia and gelatinous edema of the conjunctiva;
D-enlargement and soreness of the anterior and submandibular lymph nodes;
E-malaise.

The characteristics of the current gonoblennorrhea adults is all but:
A-feverish state;
B-joint damage;
+C-increased blood pressure;
D-muscle lesions;
E-violations of cardiac activity.

The discharge from diphtheria conjunctivitis is of the following nature:
A-scanty viscous mucus;
B-serous with an admixture of blood;
C-serous-purulent fluid;
D-a viscous cream-looking pus;
+E-turbid liquid with flakes.

Pannus is a specific manifestation:
+A-trachoma;
B-gonoblennorrhea;
C-pneumococcal conjunctivitis;
D-angular conjunctivitis;
E-epidemic keratoconjunctivitis.

The penguin is:
A-alopecia of the edge of the century;
B-growth of the conjunctiva on the cornea;
C-abnormal growth of eyelashes;
+D-an island of thickened conjunctival tissue near the cornea;
E-nodule on the cornea near the limb.

Pneumococcal conjunctivitis is not accompanied by:
A-the presence of easily removable films on the conjunctiva;
+B-bleeding from the conjunctiva when removing films;
C-spot hemorrhages on the conjunctiva of the sclera;
D-small infiltrates in the perilimbal zone of the cornea;
E-edema of the eyelids.

Pollinozy conjunctivitis is called:
A-medicines;
B-cocci flora;
+C-pollen of plants;
D-viruses;
E-chlamydia.

The lesion of the eyelids in diphtheria conjunctivitis is characterized by all changes except:
A-severe edema;
B-hyperemia;
C-soreness;
+D-purulent infiltration;
E-seals.

When diplobacillus conjunctivitis discharge has the character of:
+A-scanty viscous mucus;
B-serous with an admixture of blood;
C-turbid liquid with the cereal;

D-viscous cream-looking pus;
E-serous-purulent fluid.

In diphtheria of the conjunctiva, the discharge has the character of:
A-slime;
B-serous with an admixture of blood;
+C-turbid liquid with flakes;
Dviscous cream-looking pus;
E-serous-purulent fluid.

When the oculist examined a child who is being treated in an infectious Department, it was found that the eyelids of both eyes are swollen, hyperemic, on the mucous and skin of the eyelids are dirty-gray, dense, hardly removable films with a bleeding and necrotic surface under them. Your preliminary diagnosis:
+A-diphtheria conjunctivitis;
B-trachoma;
C-viral conjunctivitis;
D-spring Qatar;
E- gonoblennorrhea newborns.

When epidemic conjunctivitis is not found:
A-mucous discharge;
B-copious purulent discharge;
+C-presence of an easily removable films;
D-presence of petechial hemorrhages;
E-edema of the lower transitional fold.

The causes of chronic conjunctivitis can be:
A-metabolic disorders;
B-gastro-intestinal diseases;
C-long-acting external stimuli (dust, smoke, chemical impurities in the air);
D-ametropia;
+E-all of the above is true.

Pterygium is:
A-alopecia of the edge of the century;
+B-growth of the conjunctiva on the cornea;
C-abnormal growth of eyelashes;
D-an island of thickened conjunctival tissue near the cornea;
E-nodule on the cornea near the limb.

With which conjunctivitis should pharyngoconjunctival fever be differentiated?
A-epidemic conjunctivitis;
B-diphtheria of the conjunctiva;
C-trachoma;
D-true A and B;
+E-true B and C.

Symptoms of gonoblennorrhea can be all but:
A-abundant detachable;
B-edema of the conjunctiva;
+C-hemorrhages under the conjunctiva;
D-pronounced edema of the eyelids;
E-presence of gonococci in the discharge.

Somatic symptom is typical for polonskogo conjunctivitis is:
A-feverish state;

+B-sneezing, coughing;
C-severe malaise;
D-joint pain;
E-tachycardia.

Taurus Halberstadter-Provazek formed by:
+A-trachoma;
B-acute epidemic conjunctivitis;
C-diplobacillus conjunctivitis;
D-diphtheria conjunctivitis;
E-gonococcal conjunctivitis.

Trachoma occurs in:
A-pigs;
B-apes;
C-people;
+D-true B and C;
E-all of the above is true.

Trachoma is characterized by the following manifestations:
A-immature follicles on the upper plate of the eyelid cartilage;
B-epithelial keratitis;
C-formation of pannus (membrane-like vascularization);
D-formation of scar tissue with complications on the eyelid;
+E-all of the above.

The trachomatous process usually begins with:
+A-conjunctiva of the upper transition fold;
B-conjunctiva of the lower transition fold;
C-conjunctiva of the semilunar fold;
D-conjunctiva of the pericorneal zone;
E-in any unit of the conjunctiva.

The patient's disease began acutely. Edema and hyperemia of the eyelids. Enlargement and soreness of the parotid gland, purulent discharge. Hyperemia and edema of the conjunctiva of the lower fold. Large follicles in the conjunctiva. Symptoms are typical for:
A-follicular conjunctivitis;
B-trachoma;
C-diphtheria conjunctivitis;
D-angular conjunctivitis;
+Eparatrahome.

In a newborn on the 3rd day of life, it was noted: pronounced swelling and hyperemia of the eyelids of both eyes; a bloody discharge of the color of clear slops pours out from the eye slit under pressure. The conjunctiva is sharply hyperemic, infiltrated, and bleeds easily. Your preliminary diagnosis:
A-spring Qatar;
B-adenovirus conjunctivitis;
+C- gonoblennorrhea newborns;
D-tuberculosis of the conjunctiva;
E-trachoma.

Pharyngoconjunctival fever is accompanied by all symptoms except:
A-fever;
B-enlargement of submandibular lymph nodes;
C-edema and hyperemia of the eyelids and conjunctiva;
D-non-abundant mucous or Muco-purulent discharge;

+E-all of the symptoms without exception.

Conjunctival follicles are characteristic of:
A-adenovirus conjunctivitis;
B-simple follicle;
C-trachoma;
+D-all of the above.

A week after the disease gonoblennorrhea discharge has the character of:
A-scanty viscous mucus;
B-serous with an admixture of blood;
C-turbid liquid with the cereal;
+D-viscous creamy pus;
E-serous-purulent fluid.

PATHOLOGY OF LACRIMAL ORGANS

For contrast radiography of the lacrimal pathways are used:
A-fluorescein;
B-collargol;
+C- iodolipolum;
D-all listed drugs;
E-only A and B.

For the treatment of dacryoadenitis, it is advisable to prescribe everything except:
A-antibiotics;
B-sulfanilamide preparations;
C-tissue therapy;
+D-analgesics;
E-physiotherapy.

For Sjogren's syndrome is uncharacteristic:
+A-high frequency of occurrence in men;
B-occurrence in the climacteric period;
C-insufficient function of the salivary glands;
D-dry conjunctivitis;
E-filamentous keratitis.

Studies that indicate the localization of an obstacle to the outflow of lacrimal fluid in the lacrimal tract include all of the following, except:
A-channel sample with dyes;
B-tear-nose test with dyes;
C-radiography of the tear pathways with a contrast agent;
+D-overview radiography of the orbit.

Everything is related to the mechanism of lacrimal drainage, except:
A-capillary action of the lacrimal tubules;
B-the suction force of the lacrimal SAC under the action of the Gorner muscle;
+C-pushing tears into the lacrimal SAC using the Riolan muscle;
D-negative pressure in the nasal cavity;
E-specific reduction of the palpebral part of the circular eyelid muscle.

What studies help to identify the pathology of the lacrimal pathways?
A-test Vest-1;
B-test Vest-2
C-Schirmer test;
D-all of the above is true;
+E-true A and b.

A tubular test is considered positive if the eyeball discolors through:
+A-1-2 minutes;
B-3-4 minutes;
C-5-7 minutes;
D-7-10 minutes;
E-does not discolor.

The best surgical treatment for chronic dacryocystitis is:
+A-endonasal dacryocystorhinostomy;
B-external dacryocystorhinostomy;
C-extirpation of the lacrimal SAC;
D-lacorhinostomy;
E-canaliculorhinostomy.

A nasal test is considered positive if the dye appears in the nose through:
A-1-2 minutes;
+B-3-5 minutes;
C-6-7 minutes;
D-8-10 minutes;
E-does not appear.

A common manifestation of dry eye syndrome may be:
A-chronic polyarthritis;
B-anacid gastritis;
C-hypochromic anemia;
D-laringotraheobronhit;
+E-all of the above.

The main cause of dacryocystitis in adults is:
A-stricture of the lacrimal tubules;
B-atony of the circular muscles of the eyelids;
C-scarring of the eyelid skin in the area of the lacrimal SAC;
+D-obstruction of the lacrimal-nasal canal;
E- presence of a membrane at the mouth of the nasolacrimal duct.

The main symptom of dacryocystitis is:
A-lacrimation in the room;
+B-allocation of Muco-purulent discharge from the lacrimal points when pressing on the area of the lacrimal SAC;
C-hyperemia of the skin, soreness, swelling of tissues in the area of the lacrimal SAC;
D-headaches, fever, malaise;
E-inversion of the lower tear points.

Acute bilateral dacryoadenitis may be a consequence of all of the above, except:
A-mumps;
B-pneumonia;
+C-salmonelozis;
D-Mikulich syndrome;
E- typhus.

An indication for emergency surgical treatment of dacryocystitis is:
A-the presence of a fistula in the area of the lacrimal SAC;
B-hydrops;
C-fluctuation;
+D-purulent corneal ulcer;
E-all of the above.

With hypersecretion of the lacrimal gland, it is possible to conduct:
A-electrocoagulation of the gland;
B-injections of alcohol into the gland;
C-removal of parts of the gland;
D-sub-conjunctival cut of the excretory ducts;
+E-all of the above is possible.

In dacryoadenitis, all symptoms are observed, except:
A-swelling, hyperemia and soreness of the outer part of the upper eyelid;
+B-reduce the production of tears;
C-the characteristic shape of the eye slit;
D-displacement and restriction of mobility of the eyeball;
E-enlargement of regional lymph nodes.

In dacryocystitis, functional tests look like this:
+A-positive tubular test, negative nasal test:
B-positive nasal test, negative tubular test;
C-both samples are negative;
D-both samples are positive;
E-samples cannot be delivered.

When setting up a nasal sample, a cotton swab is injected:
A-in upper nasal passage;
B- in middle nasal passage;
+C- in lower nasal passage;
D-in the lacrimal canal;
E-in the conjunctival SAC.

In Sjogren's syndrome, the discharge is of a character:
A-mucous discharge;
+B-thick, viscous separable;
C-detachable color of meat slops;
D-detachable with lots of flakes;
E-viscous purulent discharge.

Causes of lacrimation can be:
A-non-immersion of lacrimal points in the lacrimal lake with a slight inversion of the edge of the eyelid;
B-inflammation of the tubules, lacrimal SAC, and nasolacrimal canal;
C-cicatricial stenosis or complete atresia at any point along the lacrimal drainage system;
D-true B and C;
+E-all of the above is true.

Conducting a probe into the nasolacrimal duct is contraindicated due to:
+A-possible damage to the wall of the lacrimal SAC and infection in the surrounding tissues;
B-the possibility of creating a fistula on the skin;
C-possible rupture of the lacrimal canaliculus;
D-inefficiency of manipulation;
E-the possibility of damage to the membranes of the eyeball and introduction of infection in them.

Radical treatment of dacryocystitis is achieved:
A-oral administration of antibiotics;
B-by probing;
+C-operation dacryocystorhinostomy;
D-taking analgesics;
E- taking diuretics.

The tear is actively carried into the nose from the conjunctival SAC.:
A-capillarity of the lacrimal points and lacrimal canaliculi;
B-reduction of the lacrimal SAC;
C-gravity tears;
D-negative pressure in the lacrimal SAC;
+E-all of the above

Narrowing or overgrowth of the lacrimal tubules is most common:
A-on any site;
B-in the outer third of the tubule;
+C-at the mouth of the tubule;
D-in the middle third of the tubule;
E-does not occur at all.

Phlegmon of the lacrimal SAC is opened through the skin if present:
+A-abscess in the area of the lacrimal SAC;
B-dense tumor of the lacrimal SAC;
C-hyperemia and swelling in this area;
D-swelling under the eye;
E-fistula in the specified area.

CORNEAL PATHOLOGY

The patient complains of decreased visual acuity of the right eye, redness, pain in the eye, and inability to look at bright light. Objectively: OD-photophobia, lacrimation, blepharospasm. Pericorneal injection of the eyeball, 2x3 mm yellow infiltrate in the cornea, the surface above it is eroded, the anterior chamber is of medium depth, the iris is structural, the photoreaction is alive, the media is transparent, the fundus is unchanged. Your preliminary diagnosis:
A-corneal thorn;
B-an acute attack of glaucoma;
C-conjunctivitis;
D-iridocyclitis;
+E-keratitis.

In the treatment of superficial forms of herpetic keratitis, the most effective use of:
+A-interferon and interferonogene;
B-corticosteroids;
C-antibiotics;
D-correct A and C;
E-all of the medications listed above.

The concept of corneal syndrome does not include:
A- lacrimation;
+B-infiltration of the cornea;
C-pericorneal injection;
D-feeling of a foreign body under the eyelid;
E-blepharospasm.

To detect a defect in the epithelium of the cornea, it is necessary:
A-conduct a study with focal lighting;
B-perform a thorough biomicroscopy;
C-perform a corneal diaphanoscopy;
+D-paint the cornea with fluorescein;
E- carefully perform an ophthalmoscopy.

For keratitis is not typical:
+A-increased intraocular pressure;
B-reduced tactile sensitivity of the cornea;
C-presence of corneal infiltrates;
D-vascularization of the cornea;
E-pericorneal or mixed injection.

Keratoconus is characterized by:
A-hypermetropia;
B-correct astigmatism;
+C-incorrect astigmatism;
D-all of the above;
E-none of the above.

For the treatment of intraocular herpes, all of these tools are used, with the exception of:
A-chemotherapeutic agents;
B-non-specific antiviral agents;
+C-antibiotics;
D-immunocorrecting agents;
E-all of the above is true.

For syphilitic parenchymatous keratitis is not typical:
A-young age of patients;

B-restoring corneal transparency;
C-positive specific serological reactions;
+D-infiltration in any part of the cornea;
E-cyclicality of the process.

For a creeping corneal ulcer, all symptoms are characteristic, except:
A-the presence of a progressive ulcer edge;
B-the presence of hypopyon;
+C-presence of a hyphema;
D-presence of a regressive ulcer edge;
E-presence of iridocyclitis.

Various forms of herpetic keratitis are characterized by:
A-the neurotrophic nature of the lesion, one of the manifestations of which is a decrease in the sensitivity of the cornea of the eye;
B-slow regeneration;
C-failure of antibacterial therapy;
D-true A and B;
+E-all of the above.

Corneal syndrome is characterized by:
A-photophobia and lacrimation;
B-blepharospasm;
C-feeling of a foreign body under the eyelids;
+D-all of the above;
E-only A and B.

For Sjogren's syndrome is uncharacteristic:
A-dry blepharoconjunctivitis;
B-epithelial dystrophy of the cornea;
+C-presence of corneal ulcers;
D-bullous-filamentous keratitis;
E-xerosis of the cornea.

For Sjogren's syndrome, it is characteristic:
A-defeat of the salivary and lacrimal glands;
B-development of dry keratoconjunctivitis;
C-photophobia;
D-pain syndrome;
+E-all of the above.

For tuberculous deep diffuse keratitis is uncharacteristic:
A-infiltration in any part of the cornea;
+B-the presence of an infiltrate consisting of separate small strokes, points;
C-damage to one eye;
D-presence of remissions and relapses of the disease;
E-combined vascularization of the cornea.

The outcome of diseases of the cornea can be:
A-restoring transparency;
B-cloud;
C- spot;
D- walleye;
+E-all of the above.

The outcome of keratitis can be all of the above, with the exception of:
A-leukoma of the cornea;

+B-macular degeneration of the retina;
C-vascularization of the cornea;
D-spot of the cornea;
E-corneal ulcers.

Superficial herpetic keratitis includes:
+A-tree-like keratitis;
B-materpiece keratitis;
C-ladder theory keratitis;
D-leaf-shaped keratitis;
E-true A and B.

The cardinal type of treatment for keratoconus is:
+A-keratoplasty;
B- createprocessasusera;
C-keratotomy;
D-crosslinking;
E-kerraring.

The presence of tree-like keratitis is a symptom of:
A-staphylococcal infection;
B-chlamydia infection;
+C-herpesvirus infection;
D-tuberculosis infection;
E-cytomegalovirus infection.

The presence of pericorneal injection of the eyeball, rough corneal surface, corneal tactile sensitivity disorders, corneal infiltrates and corneal vascularization is typical for:
A-thrombosis of the Central retinal;
B-macular degeneration;
C-cataracts;
D-diabetic retinopathy;
+E-keratitis.

The presence of a black bubble above the surface of the cornea is called:
+A-descemetocele;
B-infiltrate;
C-anterior synechiae;
D-facets;
E-carbuncle.

Acute keratoconus:
A-accompanied by sudden blurring of vision;
B-when it appears, it gives a picture of acute keratitis;
C-after the acute process is stopped, it gives an improvement in: vision;
D-occurs from the hydration of the cornea due to the rupture of the descemet membrane;
+E-all of the above.

Edema of the corneal epithelium is one of the symptoms:
A-iritis and iridocyclitis;
B-increased intraocular pressure;
C-endothelial-epithelial dystrophy;
D-all of the above;
+E-only B and C.

The sensation of a foreign body in the eye may be related to:
A-erosion of the cornea;

B-precursor xerosis: cornea;
C-keratitis;
D-conjunctivitis;
+E-any of the above.

Paresis of the facial nerve can lead to:
A-increased intraocular pressure;
+B-keratopathy and keratitis;
C-nystagmus;
D-retinal detachment;
E-all of the above.

Anterior synechia is called:
A-adhesion between the cornea and the conjunctiva of the eyelid;
B-adhesion between the conjunctiva of the eyelid and the eyeball.
+C-adhesion between the iris and cornea;
D-adhesion between the iris and the lens;
E-adhesion between the ciliary body and the lens.

Superficial vascularization of the cornea occurs in:
+A-phlyctenular keratitis;
B-adenovirus conjunctivitis;
C-scleritis;
D-episcleritis;
E-all of the above.

Superficial marginal keratitis is most often a consequence of:
A-acute conjunctivitis;
B-chronic conjunctivitis;
C-blepharitis;
D-dacriocystitis;
+E-all of the above.

Subconjunctival injections are indicated when:
A-diseases of eyelids;
B-diseases of the lacrimal pathways;
+C-diseases of the cornea;
D-acute diseases of the optic nerve;
E-chronic diseases of the optic nerve.

In the presence of a creeping corneal ulcer, first of all, you need to:
A-introduce antibiotics;
B-take the anesthesia;
+C-hospitalize the patient;
D-drip mydriatic;
E-cauterize the ulcer.

In the initial manifestations of dry keratoconjunctivitis, it is preferable to prescribe instillations:
A-corticosteroids;
B-antibiotics;
C-sulfonamides;
D-myotics;
+E-artificial tear preparations.

With limited persistent Central corneal opacity while maintaining light perception, it is advisable:
A-resorption therapy;
+B-keratoplasty;

C-perform keratoprosthetics;
D-wearing a colored contact lens;
E-tattooing of the cornea.

When transplanting the cornea as a graft is usually used:
A-artificial cornea;
B-cadaveric cornea;
C-Dura mater;
D-cornea of animals;
E-none of the above.

In Sjogren's syndrome, the following manifestations may occur from the anterior segment of the eyeball:
A-dry chronic conjunctivitis and blepharoconjunctivitis;
B-epithelial dystrophy of the cornea;
C-bullous-filamentous keratitis;
D-xerosis of the cornea;
+E-all of the above.

With an enlarged cornea (megalocornea):
A-the cornea can be transparent;
B-there is a congenital opacity of the cornea edge at the limb;
C-anterior camera is increased;
D-often there is a subluxation of the lens;
+E-all of the above.

With a Central corneal ulcer with the threat of its perforation, it is shown:
A-instillation and injection of antibacterial drugs;
B-instillation and injection of miotiks;
C-instillations and injections of Mydriatics;
D-instillation and injection of corticosteroids;
+E-urgent surgical treatment.

Manifestations of neuroparalytic keratitis can be all but:
A-reduction or absence of corneal sensitivity;
+B-severe corneal syndrome;
C-severe pain syndrome;
D-opacity and edema of the surface layers of the cornea;
E-infiltration and ulceration of the cornea.

There are the following types of corneal vascularization, except:
A-surface;
+B-subepithelial;
C-deep;
D-mixed;
E-all of the above is true.

Reduced visual acuity in corneal diseases may be associated with:
A-corneal opacity;
B-vascularization of the cornea;
C-violation of the normal sphericity of the cornea;
+D-any of the above;
E-only A and C.

The combination of signs – photophobia, lacrimation, blepharospasm, eye pain-is typical for:
A-cataracts;
+B-keratitis;

C-retinal detachment;
D-atrophy of the optic nerve;
E-thrombosis of the Central retinal vein.

The average value of the refractive power of the adult cornea is equal to:
A-23 D;
B-30 D;
+C-43 D;
D-50 D;
E-53 D.

The patient has a background of acute respiratory infections, bubble rashes on the skin of the eyelids of the right eye and infiltrates on the cornea in the form of a twig, accompanied by redness of the eyeball, lack of sensitivity of the cornea over the infiltrate. What etiology of keratitis can be thought of in this case:
A-tuberculosis;
+B-herpetic;
C-adenovirus;
D-fungal;
E-pneumococcal.

Corneal erosion may be accompanied by:
A-lacrimation;
B-photophobia;
C-blepharospasm;
D-feeling pain in the eye;
+E-all of the above.

Etiologic factor defiant phlyctenular keratitis is:
A-staphylococcal infection;
+B-tuberculosis infection;
C-syphilis;
D-gonorrhea infection;
E-viral infection.

PATHOLOGY THE SCLERA

The sclera are mainly involved in the recovery and healing processes:
A-conjunctiva;
B-episclera;
C-proper substance;
+G
D-true A and B;
E-all of the above is true.

In the etiology of sclerites and episcleritis doesn't matter:
A-syphilis;
B-tuberculosis;
C-rheumatism;
+D-hypertension;
E-brucellosis.

For episcleritis unusual:
A-redness of the eye;
B-the pain of the lesion on palpation;
+C-photophobia;
D-presence of a red with a purple tinge on the sclera;
E-normal visual acuity.

For episcleritis characterized by the following provisions:
A-inflammation of the episcleral tissue;
B-causes an unpleasant sensation;
C-does not affect visual acuity;
D-dissolves spontaneously;
+E-all of the above.

Infectious processes in the sclera most often occur during direct distribution from:
A-conjunctiva;
B-corneas;
C-iris and ciliary body;
+D-true A and C;
E-from any of the above.

The presence of bumpy protrusions on the sclera of black-ASP color is called:
A-tenonitis;
B-cysts of the sclera;
+C-staphylomas of the sclera;
D-scleritis;
E-abscess of the sclera.

A complication of scleritis can be:
A-blepharitis:
+B-secondary glaucoma;
C-sinusitis;
D-dacryoadenitis;
E-all of the above.

The appearance of scleromalacia in a patient may be associated with:
A-beriberi;
B-autoallergic;
C-collagenosis;
D-true A and C;

+E-all of the above is true.

In scleritis, involvement in the inflammatory process is possible:
+A-all of the following;
B-only C and D;
C-cornea;
D-iris;
E-ciliary body.

When the sclera is characteristic:
A-damage to the scleral cover;
B-presence of pain;
C-connective tissue disease;
D-thinning of the sclera
+E-all of the above.

Scleritis is a process most often:
A-unilateral;
B-bilateral;
C-recurrent;
+G-true B and C;
D-true A and B.

Sclerite is a:
A-deep inflammatory lesion of scleral tissue;
B-the presence of one or more spilled inflammatory foci in the sclera;
C-more often bilateral relapsing process;
D-process involving inflammation of the cornea, iris, and ciliary body;
+E-all of the above is true.

Staphylomas of the sclera lead to a decrease in visual acuity in the patient due to:
A-corneal opacities;
+B-appearance of astigmatism;
C-vascularization of the cornea;
D-appearance of cataracts;
E-opacity of the vitreous body.

PATHOLOGY OF THE VASCULAR MEMBRANE

Bombed iris leads to the development of:
A-keratitis;
B-cataracts;
+C-secondary glaucoma;
D-retinal detachment;
E-endophthalmitis.

The bombed iris is:
A-iris with holes;
B-iris, devoid of the pigment border of the pupil;
C-iris with a deformed pupil;
D-iris torn off at the root:
+E-protrusion of the iris anteriorly with intraocular fluid.

In changing the color of the iris in iridocyclitis, it does not matter:
+A-redistribution of pigment;
B-edema;
C-sudden blood filling of blood vessels;
D-the presence of exudate with the presence of blood elements;
E-deposition of hemosiderin.

As a first aid for iridocyclitis, it is necessary to use:
A-analgesics;
+B-mydriatics;
C-antibiotics;
D-sulfonamides;
E-corticosteroids.

Viral uveitis causes severe damage to all of the above, with the exception of:
A-cornea;
B-retina;
C-optic nerve;
+D-eye muscles;
E-without exception.

The occurrence of complicated cataracts due to anterior uveitis is associated with:
+A-malnutrition of the lens;
B-increased outflow of intraocular fluid;
C-damaging effect of posterior synechiae on the lens epithelium;
D-constant tension of the ciliary muscle;
E-enhanced innervation of the pupil sphincter.

Inflammation of the posterior part of the vascular membrane is called:
A-panuveitis;
B-peripheral uveitis;
C-anterior uveitis;
D-parsplanitis;
+E-choroiditis.

Inflammation of the extreme periphery of the actual vascular membrane is called:
A-panuveitis;
+B-peripheral uveitis;
C-anterior uveitis;
D- parsplanitis;
E-chorioiditis.

Heterochromia of the iris is observed when:
A-Behcet syndrome;
+B-Fuchs syndrome;
C-Behterev syndrome;
D-Sjogren's syndrome;
E-syndrome of Crouzon.

The pus at the bottom of the anterior chamber is called:
+A-hypopion;
B-hyphema;
C-hemophthalmos;
D-transudate;
E-mooring.

This diagnosis does not indicate inflammation of the vascular membrane of the eye:
A-uveit;
B-choroiditis;
+C-heriteria;
D-iridocyclitis;
E-all of these are inflammation of the vascular tract.

For the clinical picture of still's disease is uncharacteristic:
A-presence of rheumatoid arthritis;
B-band-like corneal dystrophy;
C-uveitis;
D-presence of cataracts;
+E-early increase in intraocular pressure.

For the clinical picture of iridocyclitis, it is uncharacteristic:
A-perikornealnaya or mixed injection of the eyeball;
B-presence of precipitates on the posterior surface of the cornea;
C-blurring of the drawing and changing the color of the iris;
+D-pupil dilation;
E-constriction of the pupil.

Chorioretinitis is characterized by all symptoms except:
+A-pain-aching character, worse at night;
B-presence of foci of inflammation on the fundus;
C-whether there are absolute and relative cattle;
D-the presence of photopsias;
E-all these symptoms are characteristic.

For Central serous chorioretinitis is uncharacteristic:
A-presence of a dark spot in front of the eye;
B-photopsias and metamorphopsia;
C-transient hypermetropia;
+D-narrowing of the field of vision in the upper nasal quadrant;
E-all of the above is true.

Another name for iridocyclitis:
A-panuveitis;
B-peripheral uveitis;
+C-anterior uveitis;
D-parsplanitis;
E-chorioiditis.

Changing the shape of the pupil in iridocyclitis is associated with the presence of:
A-precipitates;
+B-posterior synechiae;
C- anterior synechiae;
D-gonesinechiae;
E- mooring.

Distortions of the objects under consideration in chorioretinitis are called:
A-cyanopsia;
B-photopsias;
C-erythropsia;
+D-metamorphopsies;
E-xanthopsia.

The cardinal symptoms of iris inflammation are all but:
+A-hyperemia of the eyelids;
B-blurring of the iris pattern;
C-pupil constriction;
D-changes in iris color;
E-all without exception.

The clinical picture of iritis is characterized by all symptoms except:
A-blurring of the iris pattern;
B-pericorneal injection;
C-pupil constriction;
D-changes in the color of the iris;
+E-all of the above is true.

The blood at the bottom of the anterior chamber is called:
A-hypopion;
+B-hyphema;
C-hemophthalmos;
D-transudate;
E-mooring.

Mydriatics are prescribed when:
A-closed-angle glaucoma;
B-allergic conjunctivitis;
C-traumatic mydriasis;
+D-iritis;
E-neuralgia.

On the posterior surface of the cornea, the precipitates are shaped:
A-circle;
B-rings;
C-elongated oval;
D-irregular in shape;
+E-triangle.

The most informative in the diagnosis of tuberculosis uveitis is:
+A-tuberculin test;
B-ophthalmoscopy;
C-gonioscopy;
D-biomicroscopy;
E-radiography.

The presence of "flashes" in front of the eye in the dark is called:

A-cyanopsia;
+B-photopsy;
C-erythropsia;
D-metamorphopsia;
E-xanthopsia.

The presence of a Central focus of inflammation in the choroid is most typical for:
A-rheumatoid uveitis;
B-rheumatic uveitis;
+C-toxoplasmosis uveitis;
D-tuberculous uveitis;
E-viral uveitis.

The settling and fixation of various bacterial and toxic agents in the vascular tract is primarily explained by:
A-large number of capillaries;
B-large number of anastomoses;
C-presence of finstergruen of the capillary walls;
+D-reduced blood flow rate;
E-active exchange processes.

Deposits of cellular elements glued together by fibrin on the posterior surface of the cornea are called:
A-posterior synechiae;
B-anterior synechiae;
+C-precipitates;
D-giveme;
E-mooring.

Pericorneal injection indicates:
A-conjunctivitis;
B-increased intraocular pressure;
+C-inflammation of the vascular tract;
D-any of the following;
E-none of the above.

By the nature of inflammation there are no uveitis:
A-serous;
B-hemorrhagic;
C-purulent;
D-fibrinous-plastic;
+E-there are all without exception.

Precipitates can be deposited on all listed structures, except:
+A – on all listed structures without exception;
B-the posterior surface of the cornea;
C-anterior surface of the lens;
D-back surface of the lens;
E-anterior membrane of the vitreous body.

Precipitates on the posterior surface of the cornea are formed from:
A-endothelial cells of the cornea;
B- fabric of surface of leaf of iris;
C-sloughed lens epithelium;
+D-cell elements bonded with fibrin;
E-pigment cells.

If you have a disease of the uveal tract, you may have a lesion of all the listed eye formations, except:
A-retinas;
B-optic nerve;
+C-bones of the orbit;
D-lens;
E-vitreous body.

When iridocyclitis is not observed:
A-bursting pain in the eye;
+B-feeling of a foreign body under the eyelid;
C-photophobia;
D-lacrimation;
E-blepharospasm.

In the presence of a bombed iris and secondary glaucoma, it is advisable to perform:
A-corneal transplants;
B-extracapsular cataract extraction;
+C-basal iridectomy;
D-filter antiglaucomatous operations;
E-vitrectomy.

In Behcet syndrome, everything is observed except:
+A-lesions of the oculomotor muscles;
B-lesions of the mucous membranes;
C-recurrent iridocyclitis with hypopion;
D-aphthous stomatitis;
E-lesions of the genitals.

The adhesions between the iris and the anterior capsule of the lens are called:
+A-posterior synechiae;
B-anterior synechiae;
C-precipitates;
D-giveme;
E-mooring.

Blurring of the iris pattern in iridocyclitis is observed due to:
A-increased blood vessel filling;
B-hypertrophy of the superficial leaf of the iris;
C-atrophy of the stroma;
+D-edema;
E-increasing the tone of the iris sphincter.

Pupil constriction in iridocyclitis is caused by all factors except:
A-swelling of the iris;
B-increased blood filling of blood vessels;
+C-reduction of the tonus of the ciliary muscle;
D-increasing the tone of the sphincter of the pupil;
E-all without exception.

A typical choroid coloboma is localized:
A-in the upper part of the fundus;
+B-in the lower part of the fundus;
C-in the external part of the fundus;
D-in the inner part of the fundus;
E-in any of the departments equally often.

Increased pain, especially at night, in iridocyclitis is associated with involvement in the inflammatory process:
+A-ciliary body;
B-corneas;
C-trigeminal nerve;
D-sclera;
E-iris.

Essential mesodermal progressive iris dystrophy is characterized by all but:
A-ectopia of the pupil;
B-inversion of the pigment leaf in the pupil zone;
C-iris atrophy;
D-forming splices in the corner of the front chamber;
+E-the development of cataracts.

RETINAL PATHOLOGY

Patients with retinal detachment usually complain of:
A-reduced visual acuity;
B-loss of field of view;
C-aching pain in the eye;
D-characteristic all of these complaints;
+E-true A and B.

The basis of regmatogenic retinal detachment is:
+A-tear of retina;
B-eye injury;
C-tumor of the retina;
D-dilution of vitreous te6l;
E-choroiditis.

For temporary filling of the sclera, it is possible to use:
A-circulation;
+B-balloting;
C-radial indentation;
D-introduction of gas into the vitreous cavity;
E-fluting of the sclera.

All methods can be used to diagnose retinal detachment, except:
A-ophthalmoscopy;
B-ultrasound examination;
C-inspection by the Goldman lens;
+E-exophthalmometry;
E-biomicroscopy with a panfundus lens.

Retinal detachment is uncharacteristic for the clinical picture:
A-the presence of a gray Voile film on the background of a red reflex;
B-changing the color and shape of vessels;
+C-increased intraocular pressure;
D-presence of narrowing of the field of vision;
E-the presence of a retinal tear.

Retinal pigmentation dystrophy is characterized by all symptoms except:
A-the presence of night blindness;
+B-the beginning of pigmentation in the Central parts of the retina;
C-phenomena of atrophy of the optic nerve head;
D-presence of "bone cells" on the periphery of the retina;
E-concentric narrowing of the field of view.

Chorioretinitis is characterized by all symptoms except:
+A-pain-aching character, worse at night;
B-presence of foci of inflammation on the fundus;
C-the presence of absolute or relative cattle;
D-the presence of photopsias;
E-all these symptoms are characteristic.

For Central serous chorioretinitis is uncharacteristic:
A-presence of a dark spot in front of the eye;
B-photopsias and metamorphopsia;
C-transient hypermetropia;
+D-narrowing of the field of vision in the upper nasal quadrant;
E-all of the above is true.

Distortions of the objects under consideration in chorioretinitis are called:
A-cyanopsia;
B-photopsias;
C-erythropsia;
+D-metamorphopsies;
E-xanthopsia.

The appearance of retinal detachment can lead to:
A-eye injuries;
B-presence of vitreoretinal adhesions;
C-high degree of myopia;
D-shrinkage of the vitreous body;
+E-all of the above is true.

The following pathological conditions of the vitreous body can lead to retinal detachment:
A-posterior vitreous detachment;
B-dilution of the vitreous body;
C-mooring of the vitreous body, soldered to the retina;
+D-all of the above;
E-only A and C.

Factors that contribute to the development of retinal angiopathy include:
+A-hyperglycemia;
B-hypermetropia;
C-conjunctivitis;
D-correct A and B;
E-correct A and C.

Factors that contribute to the development of diabetic angioretinopathy include:
+A-hyperglycemia;
B-hypoglobulinemia;
C-myopia;
D-correct A and B;
E-correct A and C.

Treatment of retinal detachment can be performed by all methods, except:
A-cryocoagulation;
B-laser coagulation;
C-depressions of the sclera;
D-intravitreal intervention;
+E-all without exception.

The most common retinal rupture is localized in:
A-macular area;
B-upper-inner quadrant;
+C-upper-outer quadrant;
D-lower-outer quadrant;
E-lower inner quadrant.

The presence of "flashes" in front of the eye in the dark is called:
A-cyanopsia;
+B-photopsy;
C-erythropsia;
D-metamorphopsia;
E-xanthopsia.

Obstruction of the Central retinal vein is characterized by all symptoms except:
+A-paling of the optic disc;
B-presence of dark, sinuous, dilated retinal veins;
C-edema and blurring of the contours of the optic disc;
D-numerous hemorrhages that resemble pockets of flame;
E-presence of dashed hemorrhages on the periphery of the fundus.

The main cause of primary retinal detachment is:
A-retinal dystrophy;
B-penetration of fluid under the retina;
+C-rupture of the retina;
D-retinal edema;
E-retinal hemorrhage.

The main treatment for retinal detachment is:
A-instillation of eye drops;
B-laser treatment;
C-appointment of diuretics;
+D-surgical treatment;
E-physical therapy.

Acute disorders of arterial blood circulation in the retina can be caused by:
A-spasm;
B-embolism;
C-thrombosis;
+D-all of the above;
E-only B and C.

Acute disorders of arterial blood circulation in the retina are characterized by:
A-sharp decrease in vision;
B-narrowing of the blood vessels of the retina;
C-retinal edema;
+D-all of the above;
E-only A and C.

First aid for acute obstruction of the Central retinal artery is as follows:
A-instillation of 1% pilocarpine solution every 15 minutes;
B-immediate administration of anticoagulants;
C-instillation of 1% atropine solution;
+D-giving nitroglycerin under the tongue;
E-introduction of analgesics.

In acute obstruction of the Central retinal artery, all symptoms are observed except:
A-edema of the interstitial substance of the retina;
+B-hemorrhages into the vitreous body;
C-symptom of " cherry stone»;
D-intermittent columns of blood in the arterioles;
E-sudden loss of vision.

With retinal vein thrombosis, hemorrhages are localized:
A-preretinal;
B-intraretinal;
C-subretinally;
+D-in all these layers of the retina;
E-only A and B.

Thrombosis of the retinal veins are observed:

A-congestion in the venous system;
B-increased tortuosity and dilation of veins;
C-dark coloration of the veins;
D-hemorrhages;
+E-all of the above.

The causes of Central serous choriopathy can be all but:
A-emotional stress;
B-colds;
C-hypertension;
D-viral infections;
+E-all reasons without exception.

Retinoblastoma is:
+A-malignant retinal tumor that appears more often by the age of 2-3 years;
B-leiomyoma of the eye;
C-rhabdomyoma;
D-melanoma of the eye;
E-malignant basal cell carcinoma.

The retina is tightly fixed to the underlying tissue in:
A-zone of the optic nerve
+B-correct A and C;
C-at the toothed line;
D-in the area of the yellow spot;
E-all of the above is true.

Retinal vein thrombosis is characterized by:
A-reduced vision;
B-edema of the retina;
C-hemorrhages;
+D-all of the above;
E-none of the above.

In a 55-year-old patient with diabetes mellitus for 15 years, after a massive hemorrhage in the vitreous body, a mooring was organized in the area of the optic nerve, penetrating into the vitreous body. In the mooring, the appearance of newly formed vessels is noted. The patient should be recommended:
A-the holding of vasodilator therapy;
B-resorption therapy;
+C-vitrectomy;
D-conducting vasoconstrictive therapy;
E-laser therapy.

The cherry spot phenomenon is observed when:
A-optic neuritis;
B-retinal dystrophy;
C-retinal vein thrombosis;
+D-acute retinal arterial obstruction;
E-all of the above.

PATHOLOGY OF THE OPTIC NERVE

Patients with a congestive optic disc are more likely to complain about:
A-reduced visual acuity;
+B-headache;
C-narrowing of the field of view;
D-periodic loss of vision;
E-violation of color perception.

In cases of congestive discs of the optic nerves, the leading role belongs to:
A-ophthalmologist;
B-surgeon;
C-neuropathologist;
+D-neurosurgeon;
E-therapist.

For a congestive optic nerve disc, it is uncharacteristic:
A-enlargement and mushroom-like protrusion of the disc into the vitreous body;
B-unclear borders of the disc;
+C-decline of visual functions;
D-presence of peripapillary edema;
E-retinal hemorrhages in the peripapillary zone.

For the ophthalmoscopic picture of optic neuritis, everything is characteristic, except:
A-hyperemia of the disc;
B-presence of exudate in the disk funnel;
C-blurring of disk borders;
D-dilatation of arteries and tortuosity of veins;
+E-the presence of fibrous strands from the disc to the periphery of the retina.

For retrobulbar neuritis is not typical:
+A-hyperemia of the disc;
B-rapid decrease in visual acuity;
C-presence of the Central and paracentral cattle;
D-pain in the eye socket when moving the eye;
E-color perception disorder.

Stagnant disks of the optic nerves are characterized by:
A-edema of the disc tissue, blurring of its borders;
B-disk retention;
C-expansion of retinal veins;
D-hemorrhages,
+E-all of the above.

A congestive optic disc is a sign of:
A-inflammation of the optic nerve;
+B-increased intracranial pressure;
C-retrobulbar tumor;
D-increase in intraocular pressure;
E-tumors of the optic disc.

Hemorrhages in optic neuritis are localized:
A-all over the eye bottom;
B-in the macular area;
+C-on or near the disk;
D-on the periphery of the fundus;
E-all of the above is true.

Treatment of retrobulbar neuritis in the acute period of the disease includes:
A-vascular therapy;
+B-anti-inflammatory therapy;
C-surgical measures;
D-laser therapy;
E-all of the above.

The most common retrobulbar neuritis occurs when:
+A-multiple sclerosis;
B-basal leptomeningitis;
C-optionsavailable;
D-General intoxication;
E-diseases of the paranasal sinuses.

There is no atrophy of the optic nerves:
A-primary;
B-secondary;
C-hereditary;
+D-reactogenus;
E-simple.

Optic neuritis is characterized by all violations of visual functions, in addition to:
A-reduced vision;
B-narrowing of the field of view;
C-Central cattle;
D-color perception disorders;
+E-night blindness.

Optic neuritis is characterized by:
A-sharp decrease in vision;
B-hyperemia of the optic disc;
C-edema of the optic disc;
+D-all of the above;
E-only A and C.

Unusual for the Ophthalmoscope picture of the optic neuritis:
+A-excavation;
B-border blurring;
C-dilation of the arteries and tortuosity of the veins;
D-filling the vascular funnel with exudate;
E-hyperemia of the disc.

Acute disorders of arterial blood circulation in the optic nerve can be caused by:
A-spasm;
B-embolism;
C-thrombosis;
+D-all of the above;
E-only A and C.

Anterior ischemic optic neuropathy is associated with circulatory disorders in:
A-posterior portion of the optic nerve;
B-internal carotid artery;
+C-posterior short ciliary arteries;
D-anterior ciliary arteries;
E-the Central artery of the retina.

With optic neuritis vision:
A-does not change;
B-decreases slightly and slowly;
C-decreases slightly and quickly;
+D-decreases significantly and quickly;
E-any of the listed options.

In optic neuritis disc color:
A-does not change;
+B-hyperemic;
C-pale;
D-waxy;
E-gray.

The cause of the development of stagnant discs of the optic nerves can be:
A-tumors and tumor-like brain diseases;
B-brain cysts;
C-inflammatory processes;
D-brain injury;
+E-all of the above.

The cause of optic neuritis is:
A-viruses;
B-microbial flora;
C-toxins;
D-allergy;
+E-various combinations of all these factors.

COMMON DISEASES AND EYE

Absolute indications for termination of pregnancy are all, except:
+A-retinal detachment caused by late toxicosis;
B-a sharp narrowing of the arteries, the figure of a "star" in the macular area;
C-hypertonic neuroretinopathy;
D-arteriopathies retinopathy with hemorrhages into the retina and cotton-wool exudates;
E-thrombosis of the Central retinal vein.

Pain during palpation of the supraorbital tenderloin may indicate:
A-paresis of the facial nerve;
B-upper eyelid barley;
+C-neuritis of the first branch of the trigeminal nerve;
Ddacryoadenitis;
E-acquired ptosis.

Diabetic angiopathies are based on:
+A-metabolic disorders;
B-insulin therapy;
C-increased intraocular pressure;
D-all of the above;
E-none of the above.

In the course of diabetic retinopathy, there are:
A-two stages;
B-the three stages;
+C-four stages;
D-five stages;
E-six stages.

For hypertensive angiosclerosis is uncharacteristic:
A-symptom of Guest;
B-silver wire symptom;
+C-plasmorrhea;
D-symptom of the copper wire;
E-symptom of Salus-Hun.

For hypertensive angiopathy of the retina is characterized by all the symptoms except:
A-dilation and tortuosity of veins;
+B-silver wire symptom;
C-symptom of Guest;
D-symptom of Salus-Hun:
E-mild hyperemia of the optic disc.

For hypertensive neuroretinopathy, it is most characteristic:
A-symptom of Salus-Hun;
+B-edema and hemorrhage in the optic disc;
C-symptom of Guest;
D-silver wire symptom;
E-reduced vision.

For changes in the fundus of the eye in anemia, it is uncharacteristic:
A-pale retinal background;
B-hemorrhages around the optic disc and in the center of the retina;
C-pale, almost identical-colored arteries and veins;
D-small white foci;
+E-extensive preretinal hemorrhages.

For non-proliferative diabetic retinopathy, it is uncharacteristic:
A-retinal vein dilation;
+B-dilation of retinal arteries;
C-presence of microaneurysms;
D-unit intraretinal of microhemorrhage;
E-small number of lipid foci.

Renal retinopathy is characterized by all symptoms except:
A-presence of a congestive optic disc;
B-narrowing and irregularity of the caliber of the arteries of the retina;
+C-hemorrhages into the vitreous body;
D-the availability of different-sized white foci;
E-star shapes in the macular region.

For rheumatic lesions of the retina are most typical:
+A-retinovascular;
B-retinal detachment;
C-central retinitis;
D-exudative retinitis;
E-metastatic retinitis.

For cavernous sinus thrombosis, it is characteristic:
A-more often bilateral exophthalmos;
B-complete ophthalmoplegia;
C-thrombosis of the orbital veins;
D-stagnant disc optic nerve;
+E-all of the above.

Chronic lymphoid leukemia is characterized by:
A-whitish color of the retina with polymorphic hemorrhages;
+B-yellowish tinge of the fundus with small round hemorrhages;
C-edema of the retina with a gray background and a striped hemorrhage;
D-arterial and venous pulse with preretinal hemorrhages;
E-none of the above.

Chronic myeloid leukemia is characterized by:
A-extensive polymorphic hemorrhages throughout the fundus.
B-edema of the retina with a gray background and a striped hemorrhage;
+C-dilation of blood vessels with the presence of round projecting yellowish-white foci with hemorrhages around;
D.vasoconstriction with marked edema of the retina;
E-arterial and venous pulse with preretinal hemorrhages.

Factors that contribute to the development of diabetic retinopathy include:
+A-hyperglycemia;
B-hypoglobulinemia;
C-myopia;
D-correct A and B;
E-correct A and C.

The picture of retinal changes in diabetes includes:
A-defeat of the venous capillary system;
B-occurrence of aggregation of red blood cells;
C-formation of microaneurysms;
D-obliteration of vessels;
+E-all of the above is true.

Keratomalacia develops when:
+A- avitaminosis A;
B-avitaminosis B_1;
C-avitaminosis B_2;
D- avitaminosis C;
E-avitaminosis D.

A common manifestation of dry eye syndrome may be:
A-chronic polyarthritis;
B-anacid gastritis;
C-hypochromic anemia;
D-pharyngotracheobronchitis;
+E-all of the above.

The main cause of blindness in diabetic retinopathy is:
A-presence of microaneurysms;
B-vascular proliferation;
C-presence of hard exudates;
+D-retinal and vitreous hemorrhages;
E-detachment of the retina.

The basic principles in the treatment of simple diabetic angioretinopathy include all of the following, with the exception of:
+A-anti-inflammatory therapy;
B-therapy with antidiabetic drugs;
C-vasodilating drugs;
D-vitamin therapy;
E-medications that improve blood circulation.

The main difference between renal and hypertensive retinopathy is:
A-sharp narrowing of the arteries;
B-retinal edema;
C-presence of the Salus-Hun symptom;
+D-no angiosclerosis;
E-presence of a star shape in the area of the yellow spot.

Paresis of the facial nerve can lead to:
A-increased intraocular pressure;
+B-keratopathy and keratitis;
C-nystagmus;
D-retinal detachment;
E-all of the above.

In hypertension, possible retinal changes are:
A-angiopathy;
B-angiosclerosis;
C-retinopathy;
D-neuroretinopathy;
+E-all of the above is true.

In hypertensive retinopathy there are all the symptoms except:
A-symptom of Salus-Hun;
B-focal opacities and hemorrhages;
C-plasmorrhea;
+D-hemorrhages on the optic disc;
E-loss of vision.

When hypotonic angiopathy is observed:
A-dilation and tortuosity of the retinal arteries;
B-arteries and veins sometimes have the same gauge;
C-broad, dim reflex on the arteries;
D-often arterial and venous pulse;
+E-all of the above is true.

When measles occurs:
A-photophobia, conjunctiva injection;
B-spots on the conjunctiva of the eyelids;
C-blepharospasm;
D-small infiltrates and corneal erosions;
+E-all of the above is true.

In case of insufficiency of the aortic valve is detected:
A-spasm of the Central retinal artery;
B-presence of pronounced anastomoses between arteries and veins;
+C-pulsation of the Central retinal artery;
D-spasm of the Central retinal vein;
E-pulsation of the Central retinal vein.

Paralysis of the sympathetic nerve (Horner's syndrome) have all the symptoms except:
A-ptosis;
B-myosis;
+C-mydriasis;
D-enophthalmos;
E-all of the above is true**.**

The manifestation of Sjogren's disease on the part of the visual organ is:
A-sclerite;
B-increased intraocular pressure;
+C-dry keratoconjunctivitis;
D-retinal detachment;
E-all of the above.

Distinguish _ _ _ forms of The Salus Hun symptom:
A-2;
+B-3;
C-4;
D-5;
E-6.

Gwist's symptom is:
A-expansion of the light reflex on the fundus arteries;
B-expansion of the vein gauge compared to the arteries;
C-branching of the fundus vessels according to the type of " Bovine horns»;
D-angiospasm of the retinal arteries;
+E-corkscrew-like tortuosity of vessels in the paramacular region.

The Salus-Hun symptom is otherwise called:
A-symptom of Gwist;
+B-symptom of the intersection;
C-symptom of " silver wire»;
D-symptom of " copper wire»;
E-symptom of "cherry stone".

Frequent involvement of the visual organ in the painful process in General pathology is explained by:
A-development of the eye from the ectoderm and mesoderm and its participation in systemic diseases;
B-presence of innervation from 6 pairs of cranial nerves;
C-General the blood flow to the brain.;
D-intimate connection with the brain;
+E-all of the above.

DISEASES OF THE LENS

The absolute medical indication for surgical treatment of cataracts is:
+A-mature cataract;
B-immature cataract;
C-initial cataract;
D-the inability of the patient to perform their normal work;
E-anterior cataract without hypertension.

Due to its elasticity, the lens can:
A-change your optical power;
B-participate in the act of accommodation;
C-change your position inside the eye;
+D-true A and B;
E-all of the above is true.

In the diagnosis of cataracts is not used:
A-side lighting;
+B-ophthalmoscopy;
C-biomicroscopy;
D-study in transmitted light;
E-combined method.

In the clinical course of cortical cataracts, all stages are distinguished, except:
A-incipient cataract;
B-immature cataracts;
+C-almost mature cataracts;
D-mature cataracts;
E-overripe cataracts.

During the study by the method of passing light, the opacities in the lens against the background of the red reflex appear as spokes of _ _ _ _ _ _ _ _ colors.
+A-black;
B-gray;
C-white;
D-blue;
E-blue.

Congenital cataracts are most often removed by the method of:
A-intracapsular;
+B-aspiration-irrigation;
C-phacoemulsification;
D-lensectomy;
E-laser extraction.

Secondary cataracts are called:
A-clouding of the lens that occurs with age;
B-layered opacity of the lens;
C-clouding of the lens due to eye disease;
D-clouding of the lens due to a common disease;
+E-clouding of the posterior lens capsule after cataract extraction.

To study the state of the lens in the eye, it is desirable to pre-instill:
+A-short-acting mydriatics;
B-myotics;
C-anesthetics;
D-corticosteroid medications;

E-disinfectant drops.

For incipient cataracts is uncharacteristic:
A-no complaints;
B-appearance of flying and fixed flies:
+C-cyanopsia;
D-the appearance of "smoke" before the eyes;
E-monocular polyopia.

If the shadow of the iris is visible on the clouded lens during side lighting, this is:
A-initial cataract;
+B-immature cataract;
C-mature cataract;
D-overripe cataract;
E-turbidity in the vitreous body.

Instillation of vitamin-containing products is indicated when:
+A-corneal and lens diseases;
B-vitreous disease;
C-disease of the optic nerve;
D-destruction of the vitreous body;
E-dacryoadenitis.

Of the acquired diseases of the lens, the most common are:
A-dislocations;
B-change the shape;
+C-cloud;
D-changes in optical power;
E-all of the above are equally common.

The group of complicated cataracts includes:
A-uveal cataract;
B-cataract in glaucoma;
C-cataract in myopia;
D-radiation cataract;
+E-all listed forms.

Acquired diseases of the lens include:
+A-clouding of the lens (cataract);
B-inflammation;
C-tumor;
D-only A and C;
E-all of the above.

To progressive cataract can be attributed:
A-congenital layered cataract;
B-congenital complete cataract;
+C-acquisition of immature cataract;
D-congenital fusiform cataract;
E-congenital posterior polar cataract.

As a rule, treatment is not required:
A-a nuclear cataract;
B-cortical cataracts;
+C-polar cataracts;
D-total cataracts;
E-zonal cataracts.

The number of proteins in the lens is:
A-up to 12%;
B-up to 20%;
C-up to 25%;
D-up to 30%;
+E-up to 35%.

Conservative therapy is used when:
+A-incipient cataract;
B-immature cataract;
C-mature cataract;
D-overripe cataract;
E-secondary cataract.

Any clouding of the lens is called:
A-pterygium;
B-belmo;
+C-cataract;
D-glaucoma;
E-halkos.

Morganieva cataract is a substage of development:
A-incipient cataract;
B-immature cataracts;
C-mature cataracts;
+D-overripe cataracts;
E-secondary cataract.

The most perfect method of fixing an intraocular lens at present is:
A-anterior chamber;
B-suture;
C-iris-clip-lens;
D-iridocapsular;
+E-intracapsular.

The most common cause of lens ectopia is:
A-destructive changes in the lens substance;
B-presence of high degree of myopia;
C-dystrophic changes of the vascular membrane;
+D-weakness of the zonular ligament;
E-pathology of the vitreous body.

The most effective method of administration of drugs for the prevention of cataract progression is:
+A-instillations;
B-oral administration;
C-intravenous infusions;
D-physiotherapy methods;
E-intramuscular injections.

The presence of the patient iridophores can talk about:
A-incipient cataract;
B-immature cataracts;
C-secondary cataracts;
D-Mature cataracts;
+E-overripe cataracts.

The presence of an immature swollen cataract in the patient is fraught with danger:
A-perforations of the eyeball;
+B-occurrence of an attack of glaucoma;
C-dislocation of the lens;
D-occurrence of retinal detachment;
E-appearance of keratitis.

The presence of black spiked spines on the background of a red reflex from the fundus indicates:
+A-incipient cataract;
B-immature cataract;
C-mature cataract;
D-overripe cataract;
E-afakia.

Immature swollen cataract is fraught with the possibility of occurrence:
A-epithelial-endothelial corneal dystrophy;
B-uveitis;
C-retinal detachment;
D-perforation of the sclera;
+E-secondary glaucoma.

There are no cataracts:
A-front polar;
B-total;
+C-anterior supracapsular;
D-zonal;
E-cup-shaped.

A common feature of all acquired cataracts is:
A-localization of the opacities under the rear capsule of the crystalline lens;
B-clouding of the entire lens;
+C-progressive nature of the disease;
D-no progression;
E-threat of secondary glaucoma.

The operation of intracapsular cataract cryoextraction was first used:
A-C. Kelman;
B-V.P. Filatov;
C-A. Elsnig;
+C-T. Krvavich;
E-H. Helmholtz.

Phacoemulsification operation proposed:
A-Duke-Elder;
B-Fedorov;
C-Filatov;
D-Bowman;
+E-Kelman.

Complicated ectopia of the lens differs from simple ectopia in that it:
A-the lens becomes cloudy;
B-there is a rupture of the zonular ligament fibrils;
+C-true B and D;
D-vitreous body mines into the front chamber;
E-all of the above is true.

The main method of eye examination in determining the clinical form of cataract is:

A-visual acuity testing;
+B-biomicroscopy;
C-ophthalmoscopy;
D- ultrasound examination;
E-electrophysiological studies.

The main method of cataract treatment is:
A-conservative method;
+B-surgical treatment;
C-treatment is not required;
D-laser treatment.

The main radical method of cataract treatment is:
A-conservative therapy;
+B-surgical treatment;
C-laser therapy;
D-use of biogenic stimulants;
E-appointment of vitamin drops.

The main symptom that characterizes immature cataracts is:
+A-the presence of a semilunar shadow on the lens in side lighting;
B-small front camera;
C-loss of vision in the distance;
D-increased intraocular pressure;
E-the appearance of "flashing midges" in front of the eye when looking at the light source.

The absence of a lens in the eye is called:
A-amblyopia;
+B-afakia;
C-anophthalmos;
D-phacodenesis;
E-asthenopia.

The first intraocular lens was implanted:
A-S.N. Fedorov;
B-M.M. Krasnov;
+C-H. Reedley;
D-S. Binkhorst;
E-E. Epstein.

The first signs of lens opacity in cortical cataracts occur:
A-under the anterior capsule of the lens;
B-under the posterior lens capsule;
C-core;
D-in the cleavage zone;
+E-in the Equatorial zone.

The first cataract extraction was performed:
A-Hippocrates;
B-Galen;
C-Ibn-Sina;
+D-Daviel;
E-Grefe.

The nutrition of the lens is carried out by:
+A-diffusion and osmosis of aqueous humor and vitreous body;
B-anterior ciliary arteries;

C-proper vessels of the lens;
D-vessels of the zinc ligament;
E-all of the above.

By origin, the following types of congenital cataracts are possible:
A-hereditary;
B-intrauterine;
C-secondary;
+D-correct A and B;
E-all of the above.

Preferred type of correction for unilateral aphakia:
A-glasses;
B-contact;
+C-intra-ocular;
Dkeratophakia;
E-that's right.

In diseases of the lens, there are no inflammatory phenomena and pain due to:
A-absence of lymphatic vessels;
B-lack of blood vessels;
C-absence of innervation;
+D-all of the above is true;
E-all true, except: A.

In mature cataracts, the patient's visual acuity is usually:
A-0;
+B-light perception;
C-0,01;
D-0.1;
E-1.0.

When adult cataracts are used:
A-intracapsular cataract extraction;
B-extracapsular cataract extraction;
C-phacoemulsification;
+D-all listed operations;
E-only A and B.

At the maximum voltage of the accommodation device, the optical power of the lens can increase by:
A-1-2 D;
B-5-6 D;
C-8-9 D;
D-10-12 D;
+E-14 and more.

With initial cataracts, patients can complain about everything except:
A-don't complain about anything;
+B-feelings of a foreign body in the eye;
C-the appearance of flying and fixed flies in front of your eyes;
D-monocular polyopia;
E-visual impairment in the distance.

With unilateral aphakia, it is not possible to correct vision:
+A- correction with glasses;
B-contact correction;
C-refractive keratoplasty;

D-intraocular correction;
E-correct A and B.

When the lens is clouded, it is not observed:
A-reducing the amount of total and especially soluble proteins;
B-attenuation of lactate dehydrogenase activity;
C-slowing down the rate of glycolysis;
+D-reducing the concentration of calcium and sodium;
E-development of metabolic acidosis.

A sign of aphakia is not:
A-iridodenesis;
B-recess of the front camera;
+C-increased intraocular pressure;
D-absence of one or two Purkinje-Sanson figures;
E-hypermetropia in 10-12 D.

The properties of the lens are:
A-transparency;
B-sphericity;
C-elasticity;
D-true A and C;
+E-all of the above is true.

The word "cataract" in Greek means:
A-the clouding;
B-the vortex;
C-the rain;
+D-waterfall;
E-green water.

Shifting the lens to the anterior chamber requires:
A-conservative treatment;
+B-surgical treatment;
C-dynamic observation;
D-the issue is resolved individually;
E-correct A and C.

The patient's reflex from the fundus is faintly pink in the transmitted light. In side lighting, the lens takes on a distinctly gray hue. Visual acuity 0.03-0.04, does not correct. The patient should be diagnosed:
A-initial cataracts;
+B-immature cataracts;
C-mature cataracts;
D-overripe cataracts;
E-turbidity in the vitreous body.

The patient has no reflex from the fundus, the lens is gray, and visual acuity is the correct projection of light. In patients:
A-initial cataract;
B-immature cataract;
+C-mature cataract;
D-overripe cataract;
E-turbidity in the vitreous body.

An increase in the number of water slits in the lens, most of which are filled with detritus, as well as lamellar dissociation of the surface layers of the lens cortex are typical for:

A-initial cataracts;
+B-immature cataracts;
C-mature cataracts;
D-overripe cataracts;
E-turbidity in the vitreous body.

Cataract removal using ultrasound is called:
A-cryoextraction;
B-lensectomy;
+C-phacoemulsification;
D-cataract reclination;
E-vitrectomy.

Reducing the elasticity of the lens with age leads to the development of:
+A-presbyopia;
B-amblyopia;
C-cataracts;
D-microphakia;
E-secondary glaucoma.

Phakodenesis is determined when:
A-dystrophic changes in the iris;
B-glaucoma;
+C-subluxation of the lens;
D-detachment of the ciliary body;
E-violation of the circulation of watery moisture.

Purkinje-Sanson figures do not allow you to determine the reflection from:
A-of the cornea;
B-anterior lens capsule;
C-posterior lens capsule;
+D-vitreous.

The lens in its composition contains all the listed substances, except:
A-water;
B-proteins;
C-mineral salts;
D-fat:
+E-carbohydrates.

The lens is shaped:
+A-biconvex lens;
B-biconcave lens;
C- flat -convex lens;
D-flat-curved lens;
E-convex-concave lens.

The lens does not have:
A-blood vessels;
B-lymphatic vessels;
C-nerves;
+D-all of the above;
Eonly A and C.

The human lens has:
A-mesodermal origin;
+B-ectodermal origin;

C-endodermal origin;
D-possible development of the lens from various substrates.

The color of the lens acquires with age:
A-remains colorless;
B-grayish tint;
C-bluish tint;
D-reddish tint;
+E-yellowish tint.

Balls AdamuK-Elsnig observed in:
A-incipient cataract;
B-complicated cataract;
+C-secondary cataract;
D-"fire" cataract;
E-congenital cataract.

Ectopia of the lens is most often observed in the syndrome:
+A-Marfan;
B-Behcet;
C-Reuters;
D-Eels;
E-Vogt-Koyanagi.

The elasticity of the lens determines its ability to:
A-nutrition;
B-growth;
+C-accommodation;
D-moving along the optical axis;
E-regeneration.

PATHOLOGY OF THE VITREOUS BODY

At the heart of the granular destruction of the vitreous body is a cluster
+A-protein fractions;
B-red blood cells;
C-cholesterol;
D-hyaluronic acid and lipids;
E-pigment cells and lymphocytes.

In the vitreous body, in the presence of crystalline inclusions, all types of "rain" are found, except:
A-"golden";
B-"silver"
C-"snow";
+D- "copper";
E-all without exception.

Hyperplasia of the primary vitreous body used to be usually interpreted as:
A-presence of a hyaloid artery;
B-pseudoglioma;
C- retrolental fibroplasia;
+D-true B and C;
E-all of the above is true.

For the treatment of diseases of the vitreous body in recent years is increasingly used:
A-vitamin therapy;
B-physical therapy;
+C-intravitreal microsurgery;
D-enzyme;
E-autocitokinotherapy.

For filamentous floater characterized by all except:
A-liquefaction of the vitreous body;
B-the presence of flocculent opacities in the form of wool yarn;
C-the presence of strands of grayish-white color;
+D-the presence of the smallest grains in the form of a slurry grayish-brown;
E-the presence of opacities in the form of thin strands of fibers.

Changes in the vitreous body are most often associated with:
A-inflammation of the vascular and reticular membranes;
B-dystrophic processes;
C-eye injuries;
D-myopia;
+D-all of the above.

Cyst-like shimmering formation in the vitreous body, which has a greenish tint is typical for:
A-intraocular foreign body;
B-metal foreign body;
C-serous exudate in the vitreous body;
+D-cysticerci in the vitreous body;
E-remains of the hyaloid artery.

Hemorrhage in the vitreous body occurs due to all of these reasons, except:
A-injuries;
B-hypertension;
+C-rheumatism;
D-diabetes;
E-tumors of the choroid.

Hemorrhage in the vitreous body is called:
+A-hemophthalmos;
B- hyphema;
C-hematoma;
D-fibrin;
E-exudate.

The most informative ways to detect hemophthalmia are:
A-biomicroscopy of the vitreous body;
B-ultrasonic echography;
C-diaphanoscopy;
+D-true A and B;
E-all the methods listed above.

The most serious manifestation of dystrophic changes in the vitreous body is:
A-hemophthalmos;
B-filamentous destruction;
C-detachment;
+D-wrinkling;
E-granular destruction.

The presence of blood in the vitreous body can be a source of education:
A-anterior synechiae;
B-posterior synechiae;
C-pupil block;
D-cataracts;
+E-mooring.

Abundant serous exudation in the vitreous body occurs when:
+A-uveitis;
B-keratitis;
C-conjunctivitis;
D-glaucoma;
E-cataract.

The operation of excision of the vitreous body is called:
A-keratotomy;
B-lensectomy;
C-goniotomy;
+D-vitrectomy;
E-orbitotomy.

Features that are not typical for the remains of the hyaloid artery are:
A-the presence of a connective tissue mooring in the vitreous body;
B-mooring vibrations in the vitreous body when the eye moves;
C-remains of blood in the obliterated artery;
D-the ability to resorption;
+E-characteristically all without exception.

When examining the patient in the transmitted light, the pink reflex is determined, against which mobile black strokes and dots are marked. Vision decreased slightly. In this patient, we can assume:
A-initial stage of cataract;
B-immature cataract;
C-mature cataract;
D- overripe cataract;

+E-opacity in the vitreous body.

There are the following types of hemophthalmos:
A-partial;
B-full;
C-front;
+D-true A and B;
E-true B and C.

The vitreous body is characterized by all properties, except:
+A-the ability to regenerate;
B-inertia;
C-inability to regenerate;
D-lack of blood vessels;
E-all without exception.

This anatomical formation does not occur on the migration path of the cysticercus to the vitreous body:
A-the wall of the stomach;
B-the choroid;
+C-ciliary body;
D-retina;
E-all of the above is true.

INTRAOCULAR PRESSURE

The front camera angle block can be called:
A-undissolved mesodermal tissue;
B- root of the iris;
C-newly formed vessels;
D-blood;
+E-all of the above.

Patients with primary open-angle glaucoma usually do not complain about:
+A-recurrent pain in the eye;
B-periodic blurring of vision;
C-periodic feeling of fullness in the eye;
D-periodic appearance of rainbow circles when looking at a light source.

Patients with glaucoma who are registered at the dispensary should be checked at least once a week:
A-2 months;
+B-3 months;
C-6 months;
D-10 months;
E-1 year.

In the treatment of open-angle glaucoma, preference is currently given:
A-miotics;
+B-latanoprost;
C-beta blockers;
D - inhibitors of Carbo anhydrase;
E-ganglioblockers.

During primary glaucoma, there are:
A-one stage;
B-two stages;
C-three stages;
+D-four stages;
E-five stages.

The upper limit of normal, the true intraocular pressure:
A-16 mm Hg.;
+B-22 mm Hg.;
C-26 mm Hg.;
D-28 mm Hg.;
E-32 mmHg. V.

Intraocular fluid flows out of the eye and passes through all the anatomical structures of the eye, except:
A-poserior chamber of the eye;
B-anterior chamber of the eye;
+C-cornea;
D-sclera sinus channel;
E-trabeculae.

Intraocular pressure in an acute attack of glaucoma:
A-increased;
+B-sharply increased;
C-does not change;
D-slightly increased;

E-sharply lowered.

Intraocular pressure (IOP) is:
+A-the pressure exerted by the liquid contents of the eyeball on its elastic outer shell;
B-the pressure exerted by the liquid contents of the eyeball on its retina;
C-the pressure exerted by the elastic outer shell on the contents of the eyeball;
D-the pressure exerted by the lens on the contents of the eyeball;
E-the pressure exerted by the contents of the eyeball on the vascular membrane.

All types of hydrodynamic blocks are found, except:
A-pupil block;
B-block the angle of the anterior chamber by the iris root;
C-blockade of the anterior chamber angle goniosynechiaes;
D-trabecular block;
+E-all listed without exception.

Secondary glaucoma can be:
A- uveal;
B-phacogenic;
C-vascular;
D-neoplastic;
+Eany of the above.

The dynamics of the glaucomatous process is characterized by:
A-value of intraocular pressure;
B-the value of the outflow ease coefficient;
+C-state of the field of view;
D-changing the shape of the pupil;
E-all of the above.

Diuretic and dehydration agents are indicated when:
A-dystrophic processes;
+B-increased intraocular pressure;
C-recurrent barley;
D-iritis;
E-cataract.

Differential diagnosis of primary open-angle and closed-angle glaucoma is based on the following features:
A-depth of the front camera;
+B-opening the front camera angle;
C-iris states;
D-state of the optic disc;
E-all of the above is true.

For the treatment of congenital glaucoma, it is advisable to use:
A-regular instillations of pilocarpine solution;
B-massage of the eyeball;
C-instillation of mydriatics;
+D-surgical treatment;
E-laser trabeculoplasty.

For the treatment of primary glaucoma, all medications can be used, except:
A-pilocarpine;
B-timolol;
C-betoptic;
+D-atropine;

E-xalatan.

For General treatment of glaucoma is not prescribed:
A-vasodilator drugs;
B-angioprotectors;
+C-corticosteroids;
D-antioxidants;
E-means that improve the metabolism of the retina.

For an acute attack of angle-closure glaucoma, it is uncharacteristic:
A-corneal edema;
B-small front camera;
C-wide oval-shaped pupil;
D-congestive injection of the eyeball;
+E-narrow pupil with preservation of its reaction to light.

For primary angle-closure glaucoma, it is uncharacteristic:
A-small anterior chamber;
B-pupil dilation;
C-myopic refraction;
D-open angle of the front camera;
+E-true C and D.

For primary open-angle glaucoma are uncharacteristic:
+A-pain in the eye;
B-fog in front of the eye;
C-absence of complaints;
D-rainbow circles when looking at a light source;
E-all of the above.

From the scleral sinus, watery moisture enters the collector tubules (water veins), the number of which is equal to:
A-2-3;
B-about 10;
+C-20-30;
D-60-80;
E-200-300.

Hydrodynamic indicators include all but:
A-outflow pressure;
B-minute volume of watery moisture;
C-the rate of formation of watery moisture;
D-ease of outflow of watery moisture from the eye;
+E-all without exception.

The features of glaucoma do not apply:
A-constant or periodic excess of the tolerant (individually tolerated) level of intraocular pressure;
B-development of a characteristic lesion of the optic nerve head and retinal ganglion cells;
C-violation of the field of vision;
+D-change of color perception;
E-all without exception.

The glaucoma symptom complex includes:
A-the decline of visual functions;
B-optic nerve atrophy;
C-increased level of ophthalmotonus and instability of intraocular pressure;
D-only A and B;

+E-everything is correct.

Risk factors that affect the incidence of primary open-angle glaucoma do not include:
A-old age;
B-hypotension;
+C-arterial hypertension;
D-disorders of glucocorticoid metabolism;
E-pseudoexfoliative syndrome.

What degree of increase in intraocular pressure when examining it palpation does not happen:
A-T+1;
B-T+2;
C-T+3;
+D-T+4;
E-Tn.

Treatment of an acute attack of glaucoma includes:
A-instillation of miotics;
B-appointment of beta blockers;
C-instillation of sympathomimetic agents;
D-receiving diacarb;
+E-all of the above is true.

Myotics are prescribed when:
A-irite;
+B-glaucoma;
C-conjunctivitis;
D-neuralgia;
E-viral keratitis.

On the basis of what signs is the differential diagnosis of primary open angle and closed angle glaucoma performed:
A-depth of the front camera;
+B-opening the front camera angle;
C-iris state;
D-state of the optic disc.

The level of intraocular pressure is mainly affected by changes in volume:
+A-intraocular fluid;
B-the lens;
C-vitreous body;
D-retina;
E-vascular membrane.

The earliest sign of glaucoma is:
A-increased intraocular pressure;
B-blockade of the anterior chamber angle;
+C-expanding the boundaries of the blind spot;
D-excavation of the optic nerve disc;
E-the appearance of pain in the eye.

The earliest symptom of changes in the field of vision in glaucoma is:
+A-increasing the size of the blind spot;
B-the appearance of relative and absolute paracentral cattle;
C-narrowing of the field of view from the nasal side;
D-concentric narrowing of the field of vision-tube vision;
E-complete absence of visual functions.

There is no glaucoma:
A-primary;
+B-postprimary;
C-innate;
D-secondary;
E-youth.

The necessary level of IOP provides:
A-spherical shape of the eyeball;
B-correct topographical relationships of internal structures;
C-facilitating exchange processes in these structures;
+D-all of the above is true;
E-true A and B.

The normal level of true intraocular pressure is:
A-6 to 16 mm Hg.;
+B-9-21 mm Hg.;
C-14-23 mm Hg.;
D-16-26 mm Hg.;
E-27 to 32 mm Hg.

he normal level of tonometric intraocular pressure is:
A-11-14 mm Hg.;
+B-16-26 mm Hg.;
C-27-32 mm Hg.;
D-33-38 mm Hg.;
E-39-41 mm Hg.

The instability of the glaucomatous process is evidenced by:
A-reduced visual acuity;
B-the appearance of pain in the eye;
+C-narrowing the field of view;
D-redness of the eye;
E-lack of normalization of intraocular pressure.

The main complaint of a patient with an acute attack of glaucoma is:
A-pain in the eye, radiating to the corresponding half of the head, jaws, teeth, and fog before the eyes;
B-reduced vision;
C-impaired mobility of the eyeball;
D-only A and C;
+Eonly A and B.

The main feature that allows a child to suspect the presence of congenital glaucoma during external examination is:
+A-increase in the size of the cornea;
B-redness of the eye;
C-presence of exophthalmos;
D-clouding of the cornea;
E-the presence of strabismus.

Primary open-angle glaucoma is most dangerous due to:
A-its frequencies;
B-sudden start;
+B-asymptomatic course;
D-loss of visual acuity;
E-pain in the eye.

First aid for an acute attack of glaucoma should begin with:
+A-the purpose of frequent instillation of pilocarpine;
B-giving salt laxative;
C-appointment of diuretics;
D-use of osmotic agents;
E-hot foot baths.

Perforations of the lattice plate of the sclera form:
+A-200-400 tubules;
B-10-15 tubules;
C-about a million tubules;
D-50-100 tubules;
E-700-800 tubules.

According to the classification of primary glaucoma there is no stage:
A-initial;
B-developed;
C-far-gone;
+D-absolute;
E-terminal.

The term "tolerant intraocular pressure" is understood as:
A-range of intraocular pressure at the level of 16-26 mm Hg.;
B-range of intraocular pressure that is safe for humans;
C-the range of intraocular pressure at the level of 16 to 21 mm Hg..;
+D-range of intraocular pressure that is safe for a particular person;
E-all of the above is true.

After stopping an acute attack of glaucoma, it is necessary:
A-continue the application of miotikov and monitoring;
+B-perform the operation in 24 hours;
C-recommend the use of diuretics;
D-prescribe vasodilators;
E-recommend courses of taufon injections twice a year.

When glaucoma occurs:
A-appearance is typical for glaucoma disorders of visual function;
B-constant or periodic excess of the tolerant level of intraocular pressure;
C-development of a characteristic lesion of the optic nerve head and retinal ganglion cells (glaucoma optic neuropathy);
D-true A and B;
+E-all of the above is true.

In an acute attack of glaucoma:
+A-pilocarpine is buried every hour;
B-pilocarpine is buried 3-4 times a day;
C-pilocarpine is not buried;
D-applied electrophoresis with pilocarpine;
E-instilled pilocarpine in combination with sulfacetamide.

In an acute attack of glaucoma is not observed:
A-pain in the eye and brow arch;
B-blurring of vision and the appearance of rainbow circles when looking at a light source;
C-nausea and vomiting;
D-pain radiating to distant organs;
+E-all of the above symptoms may occur.

The cause of secondary glaucoma can not be:
A-anterior uveitis;
B-ectopia of the lens;
+C-chronic conjunctivitis;
D-thrombosis of the Central retinal vein;
E-the intraocular tumor.

Production of watery moisture is carried out:
A-in the flat part of the ciliary body;
+B-in the processes of the ciliary body;
C-epithelium of the iris;
D-all of the above structures.

A child suffering from congenital glaucoma should be operated on:
+A-within the first month after diagnosis;
B-if conservative therapy is unsuccessful;
C-at least 14 years of age;
D-at the age of majority;
E-when the child needs to go to school.

The lattice plate of the sclera consists of:
A-several perforated sheets of connective tissue separated by vascular tissue;
B-several perforated sheets of connective tissue separated by fat layers;
+C-several perforated sheets of connective tissue separated by astroglial layers;
D-several perforated sheets of connective tissue separated by bone layers;
E-several perforated sheets of connective tissue separated by liquid layers.

The lattice plate of the sclera is thinner in:
A-upper and outer segments;
+B-upper and lower segments;
C-outer and lower segments;
D-inner and upper segments;
E-lower and inner segments.

Symptoms not characteristic of an acute attack of primary angle closure glaucoma:
A-corneal edema;
B-small front camera;
C-wide elliptical pupil;
D-congestive injection of the eyeball;
+E-the pupil is narrow, the pupil's reaction to light is preserved.

Symptoms common to all types of glaucoma:
A-increased resistance to outflow of watery moisture;
B-instability of intraocular pressure;
C-increase the level of intraocular pressure;
D-changing the field of view;
+E-all listed correctly.

There are tonometry techniques for:
A-Weber;
B-Shiotsu;
C-Goldman;
D-Maklakov;
+E-true all but A.

The tonometric level of normal intraocular pressure is:

A-11-14 mmHg.;
+B-16-26 mm Hg.;
C-27-32 mm Hg.;
D-33-38 mm Hg.;
E-39-41 mm Hg.

The angle of the anterior chamber in closed- angle glaucoma is blocked:
A-pigmented lumps;
+B-root of the iris;
C-lens;
D- newly formed vessels;
E-vitreous body.

Visual impairment of a glaucoma patient is associated with:
A-increased intraocular pressure;
B-changing the refraction of the eye;
C-offset anteriorly iris-lens diaphragm;
D-the appearance of hemorrhages on the fundus;
+E-infringement of the optic nerve fibers in the deformed tubules of the sclera's lattice plate.

Surgical or laser treatment of open-angle glaucoma is recommended when:
+A-initial stage;
B-increasing intraocular pressure to 35-40 mm Hg.st.;
C-narrowing the field of view by 35-45°;
D-pronounced excavation of the optic nerve disk;
E-lowering of intraocular pressure.

The etiology of primary glaucoma is not related to:
A-individual anatomical features;
+B-features of living conditions;
C-age-related changes in various structures of the eye;
D-individual features of exchange processes;
E-state of the nervous and endocrine systems

TUMORS

Adenocarcinoma of the eyelid in clinical manifestations may resemble:
A-papilloma;
+B-chalazion;
C-hemangioma;
D-xanthelasma;
E-melanoma.

Hemangiomas of the eyelids have the following types:
A-capillary;
B-all but E;
C-cavernous;
+D-all listed;
E-racemous.

The dermoid of the century contains:
A-sebaceous and sweat glands;
B-fat;
C-hair;
D-only B and C;
+E-all of the above.

Senile keratosis is characterized by all but:
+A-red spots on the skin of the eyelid;
B-localization of the areas subjected to frequent sun exposure;
C-flat areas of white color on the skin of the eyelid;
D-presence of scales on the surface;
E-possibilities of malignancy.

A benign tumor of the eye socket is:
A-chloroma;
B-sarcoma
+C-cholesteatoma;
D-neuroblastoma;
E-sympathoblastoma.

Benign tumors of the eyelids are all listed, except:
A-nevus;
+B-adenocarcinomas;
C-pigmentosum;
D-hemangiomas;
E-papillomas.

Malignant tumors of the eyelids are all listed, except:
A-basal cell carcinoma;
B-squamous cell carcinoma;
C-adenocarcinoma of the meibomian gland;
+D-pigment xeroderma;
E-melanoma.

Of the following neoplasms, it is not malignant:
+A-melanocytoma;
B-retinoblastoma;
C-melanoma;
D-sarcoma;
E-all malignant.

The initial moments for the development of skin cancer of the eyelids can be:
A-wart injuries;
B-barley;
C-boils;
D-birthmarks;
+E-all of the above.

Benign secondary tumors of the orbit include:
A-fibroids;
B-osteomas;
C-lipomas;
D-chondromes;
+E-all of the above.

The skin horn has:
+A-greyish-dirty shade;
B-grayish-yellow color with a dirty touch;
C-yellow color;
D-brown color;
E-white color.

Primary benign tumors of the orbit include:
A-angiomas;
B-meningiomas;
C-gliomas;
D-mixed tumors of the lacrimal gland;
+E-all of the above.

Leucosarcoma of the eyelid can make an impression:
A-lymphangiomas;
B-hemangiomas;
+C-amyloid;
D-melanosarcoma;
E-skin cancer.

The progression of conjunctival nevus is indicated by all signs, except:
+A-increase the size;
B-changes in pigmentation;
C-increasing vascularization;
D-appearance of the blurred boundaries;
E-all signs are characteristic, without exception.

The most characteristic signs of a malignant tumor of the orbit:
A-restriction of eyeball mobility;
B-relatively rapid decline in visual function;
C-swelling of the eyelids and surrounding eye tissues;
B-exophthalmos;
+Уall of the above.

The most common form of skin cancer on the eyelids is the following:
A-meibomian;
+B-superficial ulcer;
C-spinocellular;
B-infiltrative;
У-warty.

The presence of flat yellow-lemon spots on the skin of the eyelids is a sign:
A-lymphangiomas;
B-lipomas;
+C-xanthelasma;
B-fibroids;
У-nevus.

The nevus of the eyelid should be excised or subjected to diathermocoagulation due to the fact that it can:
A-increase in size;
+B-malignantly reborn;
C-capture both the century;
D-ulcerate;
E-being a cosmetic defect.

Non-Hodgkin's malignant orbit lymphoma is a sign of:
+A-damage to the body's immune system;
B-tuberculosis infection;
C-independently arisen neoplasm;
D-metastasis of neoplasms from other tissues;
E-viral damage to the body.

Tumors of the eyelid skin make up _ _ _ _ _ _ _ % of all neoplasms of the visual organ.
A-more than 50%;
B-more than 60%;
C-more than 70%;
+D-more than 80%;
E-more than 90%.

The main danger of pigment xeroderma of the eyelids is:
A-pronounced dryness of the eyelid skin;
B-atrophic changes in the eyelid skin;
C-ulceration of the eyelids;
D-papillomatous growths on the eyelids;
+E-malignancy.

In the ulcerative form of skin cancer of the eyelids, metastasis may occur in:
A-eyeball;
B-brain;
C-lungs;
+D-regional lymph nodes;
E-to all listed entities.

Retinoblastoma is:
+A-malignant retinal tumor that appears more often by the age of 2-3 years;
B-leiomyoma of the eye;
C-rhabdomyoma;
D-melanoma of the eye;
E-malignant basal cell carcinoma.

The patient has a slightly protruding formation on the lower eyelid with clear and even borders. The color is brown, the surface is dry and rough, and the horn plates are diffused. Growth is slow. This:
A-papilloma;
+B-senile wart;
C-senile keratosis;
D-skin horn;
E-Bowen's epithelium.

EYE INJURY

The absolute indication for enucleation is:
A-acute attack of newly diagnosed glaucoma;
B-hemophthalmos in the eye with diabetic retinopathy;
+C-risk of developing sympathetic ophthalmia;
D-penetrating shrapnel wound of the eyeball;
E-all of the above.

The absolute sign of finding a foreign body in the eye is:
A-absence of the anterior chamber, laceration of the cornea or sclera with non-adapted edges;
B-traumatic hemophthalmos;
+C-clinically determined signs of metallosis;
D-traumatic cataract;
E-an increase in intraocular pressure.

The absolute signs of a penetrating wound are:
A-wound that passes through all layers of the cornea, sclera, or corneal-scleral zone;
B-infringement of the internal membranes of the eye in the wound;
C-intraocular foreign body;
D-traumatic coloboma of the iris, an air bubble in the vitreous body;
+E-all of the above.

Berlinovskoe blurred is characterized by:
A-endothelial-epithelial dystrophy;
B-local opacity of the lens;
C-development of floating and fixed opacities in the vitreous body;
+D-limited opacification of the retina;
E-all of the above.

Patient K. was admitted to the office of emergency ophthalmological care with the following symptoms: edema and hematoma of the eyelids, narrowing of the eye gap, exophthalmos, restriction of mobility of the eyeball down and to the nose, ptosis, subcutaneous emphysema with crepitation in the left eye area. The most likely diagnosis:
A-atrophy of retrobulbar tissue;
B-inflammation of the retrobulbar space;
C-haematoma of the orbit;
+D-fracture of the eye socket walls;
E-myositis of the rectus muscles of the eye.

The patient received a burn of the right eye with a burning cigarette. Complaints of severe pain in the right eye, decreased vision. Objectively: visual acuity-0.02. Photophobia, lacrimation, blepharospasm. Mixed injection of the eyeball. The cornea is cloudy and its entire surface is erosed. The anterior chamber and iris are hard to see. Corneal burn should be regarded as:
A-grade I burn;
B-grade II burn;
+C-grade III burn;
D-grade IV burn.

An intraocular foreign body can be detected in the eye using:
A-biomicroscopy and ophthalmoscopy;
B-gonioscopy;
C-x-ray method;
E- ultrasound examination;
+D – all the above methods.

Inflammation of all the membranes of the eye is called:

A-endophthalmitis;
+B-panophthalmitis;
C-phlegmon;
D-abscess;
E - tenonitis.

Inflammation of the contents of the eye is called:
+A-endophthalmitis;
B-panophthalmitis;
C-phlegmon;
D-abscess;
E - tenonitis.

The diagnosis of a through wound of the eyeball is established undoubtedly when:
A-presence of an intraorbital foreign body;
B-hemophthalmia;
+C-presence of input and output holes;
D-sharp pain when moving the eyeball;
E-exophthalmos.

For patients with eye contusion, it is typical:
A-hemorrhages under the skin of the eyelids and conjunctiva of the eyeball;
B-exophthalmos;
C-enophthalmos;
+D-only A and B;
E-that's all right.

For the treatment of hemophthalmia, it is advisable to use all but:
A-hemostatic drugs;
B-hypertonic solutions;
+C-antibacterial drugs;
D-enzymes;
E-ultrasound therapy.

For eye damage by ultraviolet radiation, the typical symptoms are:
A-photophobia;
B-lacrimation;
C-hyperemia of the eyelids;
D-injection of the eyeball;
+E-all of the above is true.

For a penetrating wound of the cornea, it is characteristic:
A-the presence of a corneal wound that passes through all its layers;
B-small front camera;
C-loss of the iris;
D-damage to the lens;
+E-all of the above.

For accurate localization of the intraocular foreign body, it is necessary to make:
A-ultrasound examination;
B-ophthalmoscopy;
C-overview radiography of the orbit;
+D-radiography for Baltin;
E-all of the above is true.

Blunt traumatic injuries of the anterior segment of the eye include all but:
+A-concussion of the retina;

B-hyphema;
C-traumatic mydriasis;
D-iridodialysis;
E-traumatic cataract.

The cardinal clinical sign of endophthalmitis that distinguishes it from traumatic iridocyclitis is:
A-complete loss of vision of the injured eye;
B-severe pain in the eye in half of the head on the side of the wound;
C-moderate swelling of the eyelids and conjunctiva;
D-lack of reflex from the fundus or yellowish reflex in the pupil area;
+E-all of the above.

The clinical picture of eye metallosis may be caused by:
A-a foreign body embedded in the eyeball;
B-food poisoning by heavy metal salts;
C-peculiarities of working in harmful production;
D-effects of hemolysis in hemophthalmos;
+E-true A and D.

Clinical signs of emphysema of the eyelids include:
A-crepitation;
B-edema;
C-integrity of the skin;
+D-all of the above is true.

Hemorrhage in the anterior chamber of the eye is called:
A-iridodenesis;
+B-hyphema;
C-iridodialysis;
D-hemophthalmos;
E-hematoma.

Hemorrhage in the vitreous body is called:
A-iridodenesis;
B-hyphema;
C-iridodialysis;
+D-hemophthalmos;
E-hematoma.

Treatment of puncture wounds of the eyeball should be carried out:
A-on an outpatient basis;
+B-in a specialized trauma center;
C-in a general hospital;
D-does not require any treatment.

The best detoxification agent in the pathogenetic therapy of eye burns is:
+A-plasma burn reconvalescents;
B-intravenous glucose administration;
C-intramuscular administration of b vitamins;
D-desensitizing agents;
E-vasodilators.

A metallic intraocular foreign body is removed from the anterior chamber:
A-direct way;
+B-front way;
C-disklerini way;
D-any of the following;

E-not deleted.

The most difficult for surgical treatment is the gap:
A-skin of the eyelid;
+B-of the medial cleavage of the eyelid;
C-at the lateral eyelid junction;
D-in the middle third of the eyelid;
E-the conjunctiva.

Emergency care for penetrating injury of the eyeball.:
A-in intramuscular administration of broad-spectrum antibiotics;
B-in applying an aseptic binocular bandage;
C-in the introduction of tetanus serum;
D-immediately refer the patient to an eye hospital;
+E-all of the above is true.

Survey images of the eye socket in case of penetrating injury of the eyeball are carried out:
+A-in all cases;
B-only if there is a history of data on the introduction of a foreign body;
C-only in cases where there are symptoms of a fracture of the walls of the orbit;
D-when the splinter is located behind the eye;
E-only in cases where it is not possible to use the Komberg-Baltin prosthesis.

Eyelid burns may be the cause:
+A-scar eversion of the eyelids;
B-paralytic eversion of the eyelids;
C-atonic eversion of the eyelids;
D-spastic eversion of the eyelid;
E-all of the above.

The optimal type of first aid in case of eye contact with toxic substances is:
+A-eye washing with 2% soda solution;
B-eye washing with boric acid solution;
C-washing the eyes with distilled water;
D-instilling an anesthetic solution into the eyes;
E-placing hydrocortisone ointment in the conjunctival SAC.

The features of soft tissue lacerations in the periorbital region are:
A-loss of fat;
B-damage to the external muscles of the eye;
C-the injury of the lacrimal gland;
D-drooping upper eyelid and ophthalmoplegia, exophthalmos;
+E-all of the above.

The difference between emphysema of the eyelids and inflammatory edema is characterized by:
A-the presence of hyperemia of the eyelid skin;
B-pain on palpation of the eyelids;
+C-the presence of crepitation;
D-all of the above;
E-only A and B.

Relative signs of a penetrating wound should be considered:
A-injection of the eyeball, pain;
B-change the function of the eye;
C-hemorrhagic syndrome;
D-cataract;
+E-all of the above.

First aid in the clinic and at the medical center for penetrating injury of the eyeball with loss of membranes is as follows:
A-reduction of fallen shells;
B-excision of fallen shells and sealing of the wound;
+C-applying a bandage and urgent transportation to the ophthalmic trauma center;
D-organization of consultation of an ophthalmic traumatologist in a polyclinic;
E-in each case, the decision is made individually.

First aid for a chemical eye burn is as follows:
A-instilling antibacterial drops;
B-laying antibiotic ointment;
+C-washing the conjunctival SAC;
D-subconjunctival blood injection;
E-applying a bandage.

Fracture of the medial wall of the eye socket is characterized by:
A-splinter fracture with displacement of bone fragments posteriorly and outwards;
B-rupture of the medial ligament of the angle of the eye gap;
C-displacement of the lacrimal SAC;
D-protrusion into the sinus of the latticed bone;
+E-all of the above.

According to the severity of the burn, the eyes are distinguished:
A-one degree;
B-two degrees;
C-three degrees;
+D-four degrees;
E-five degrees.

Indications for enucleation are:
A-absolutely blind aching eye;
B-intraocular malignant tumor;
C-sympathetic ophthalmia;
D-blind eye smashed by injury;
+E-all of the above.

In case of contusion of the eyeball, it is possible:
A-sub-conjunctival sclera rupture;
B-corneal erosion, retinal edema;
C-intraocular hemorrhage;
D-subluxation or luxation of the lens;
+E-all of the above.

When processing a penetrating injury to the eyeball with the presence of an intraocular foreign body, the first step is made:
A-prescribing massive doses of antibiotics;
+B-suturing of the wound the capsule of the eye;
C-removal of an intraocular foreign body;
D-introduction of tetanus toxoid;
E-vitrectomy.

If the eye is burned, it is advisable to apply:
A-aseptic dressing;
B-monocular bandage;
C-binocular bandage;
+D-the bandage is not applied;

E-any of the following.

In case of penetrating injury of the eyeball, antibiotics are prescribed:
A-in cases of a clinically determined infectious lesion;
+B-in all cases;
C-only with the introduction of intraocular fragments;
D-when the lens is affected;
E-true A and C.

When penetrating corneal wounds with extensive epithelial defects, the use of corticosteroids is limited due to:
A-individual intolerance of drugs;
B-possible increase in intraocular pressure;
+C-slow down reparations;
D-all of the above.

When penetrating wounds of the sclera can be observed:
A-extensive sub-conjunctival hemorrhage;
B-deep front camera;
C-fall of the membranes of the eye and vitreous body;
D-reduction of intraocular pressure;
+E-all of the above is true.

For eyelid wounds tissue regeneration:
+A-high;
B-low;
C-does not differ significantly from tissue regeneration in other areas of the face;
D-lower than other areas of the face.

In case of a torn wound of the eye socket tissues with ptosis and exophthalmos, the General surgeon of the emergency room is obliged to:
A-apply a bandage and send the patient to a specialist;
B-make an injection of antibiotics and pain relief;
C-introduce anti-tetanus serum;
D-only A;
+E-everything is correct.

In case of lacerations of the soft tissues of the periorbital region, the first step should be performed:
A-massive antibacterial therapy;
+B-primary surgical treatment;
C-treatment aimed at the removal of inflammation;
D-vitamin therapy;
E-all of the above.

The Komberg-Baltin prosthesis is used for:
A-exclusion of intraocular foreign bodies on x-ray images;
+B-x-ray localization of a foreign body;
C-suturing to the conjunctiva to prevent loss of the vitreous body during surgery;
D-conducting magnetic tests;
E-all of the above.

Siderosis of the eyeball is characterized by:
A-brown pigmentation around the fragment;
B-front chamber moisture opalescence;
C-changing the color of the iris;
D-deposition of pigment in the area of the Schlemm canal and brown deposits in the lens;
+E-all of the above.

Siderosis is:
A-inflammation of the cornea;
+B-impregnation of the eye tissues with iron compounds;
C-destruction of the vitreous body;
D-inflammation of the iris;
E-damage to the optic nerve.

Sympathetic ophthalmia develops in the presence of an injured eye:
A-secondary glaucoma;
+B-plastic uveitis;
C-traumatic cataract;
D-traumatic keratitis;
E-metallosis.

Symptoms of traumatic iridocyclitis are:
A-photophobia and lacrimation;
B-pericorneal injection;
C-cyclical pain during palpation and eye movements;
D-violation of ophthalmotonus;
+Eall of the above.

Shifting the lens to the anterior chamber requires:
A-conservative treatment;
+B-surgical treatment;
C-dynamic observation;
D-the issue is resolved individually;
E-correct A and C.

Degree of damage to eye structures in chemical burns:
+A-higher for alkaline burns than for acid burns;
B-for acid burns above;
C-approximately the same for long-term consequences;
D-chemical burns are less dangerous than thermal burns.

Traumatic edema of the eyelids is accompanied by:
A-extensive subcutaneous hemorrhages with a bluish tinge;
B-blepharospasm and lacrimation;
C-itch;
+D-all of the above;
E-only B and C.

The severity of the eye burn and its appendages is determined:
A-the concentration of the burning substance;
B-its chemical property;
C-the depth of the lesion;
D-burn area;
+E-all of the above.

The figure of a "sunflower" in the lens is typical for:
A-chorioretinitis;
B-siderosis of the eyeball;
+C-halcosis;
D-dystrophic diseases of the cornea;
E-diabetic cataract.

Surgical treatment is indicated for the following complications of eye burns:

A-corneal albugo;
B-corneal ulcer;
C-fistula of the cornea;
D-secondary glaucoma;
+E-for all the complications.

The following complications of eye contusion are subject to surgical treatment:
A-hemophthalmos;
B-traumatic cataract;
C-secondary glaucoma;
D-retinal detachment;
+E-all complications.

PROFESSIONAL EYE PATHOLOGY

For eye damage during welding is uncharacteristic:

+A-the presence of an inflammatory infiltrate in the cornea;
B-feeling of a foreign body in the eye;
C-photophobia;
D-lacrimation;
E-blepharospasm.

The impregnation of mercury into the cornea and lens is accompanied by their staining:

A-in yellow;
B-in blue-green color;
+C-in gray-brown color;
D-in gray-yellow color;
E-in black.

What anatomical elements of the eye are most absorbed by ultraviolet radiation?

A-cornea and watery moisture;
B-watery moisture and lens;
+C-cornea and lens;
D-cornea and retina;
E-the lens and retina.

What kind of eye pathology does not occur when exposed to infrared radiation?

A-blepharitis;
B-corneal opacification;
C-cataract;
+D-vitreous opacity;
E-retinal burn.

Which of the signs suggests a high probability of eye damage with carbon disulfide?

+A-the appearance of colored circles in front of the eyes;
B-lacrimation;
C-hemorrhages in the conjunctiva;
D-keratitis;
E-retinal vascular microaneurysms.

The most noticeable change in the eyes when exposed to vibration and ultrasound is:

A-deterioration of visual acuity;
+B-reduced accommodation;
C-narrowing of the field of view;
D-change in the state of the conjunctiva;
E-retinal angiopathy.

The presence of brown, foamy overlays on the conjunctiva is characteristic of eye damage:

A-tobacco;
B-mercury;
C-trinitrotoluene;
D-lead;
+E-hydroquinone.

Eye lesions with mercury most often cause pathology from the side:

A-corneas;
B-irises;
C-skulls;
+D-oculomotor muscles;
E-retinas.

Eye damage with trinitrotoluene is accompanied by the development of:

A-conjunctivitis;
B-keratitis;
C-sclerite;
+D-cataracts;
E-glaucoma.

When exposed to ionizing radiation on the eye, it is possible:

A-atrophy of the eyelid skin;
B-keratoconjunctivitis;
C-cataract;
+D-all of the above;
E-none of the above.

With ophthalmoargyria, the most common staining occurs:

A-eyelds;
+B-conjunctiva;
C-corneas;
D-lens;
E-retinas.

When the eye is affected by arsenic or its compounds, it most often suffers:

+ A-eyelids;
B-conjunctiva;
C-cornea;
D-iris;
E-the lens.

When the eyes are affected by carbon monoxide, it does not occur:

A-dark color of the retina with edema;
B-retinal hemorrhages;
C-oculomotor disorders;
+D-conjunctivitis;

E-optic neuritis.

MILITARY MEDICAL EXAMINATION

Eligible for military service are recognized as citizens who have:
+A-visual acuity of one eye not less than 0.5 and not less than 0.1 for the other eye;
B-visual acuity of one eye not less than 0.4 and not less than 0.1 for the other eye;
C-visual acuity of one eye not less than 0.3 and not less than 0.1 for the other eye;
D-visual acuity of one eye not less than 0.5 and not less than 0.08 for the other eye;
E-visual acuity of one eye is not less than 0.1 and not less than 0.08 for the other eye.

The refraction of the "best" eye in hypermetropia should not exceed the anomaly allowed for drill service:
A-5 diopters;
B-6 diopter;
C-7 diopter;
+D-8 diopters;
E-9 dioptesr.

The permissible refractive error of the "best" eye in myopia for drill service should not exceed:
A-3 diopters;
B-4 diopters;
C-5 diopters;
+D-6 diopters;
E-7 diopters.

The permissible degree of astigmatism of the "best" eye for the drill service should not be greater than:
A-3 diopters;
+B-4 diopters;
C-5 diopters;
D-6 diopters;
E-7 diopters.

What category of fitness for military service does not exist?
A-fit for military service;
B-fit for military service with minor restrictions;
+C-fit for military service with significant restrictions;
D-limited fit for military service;
E-temporarily unfit for military service.

Not fit for military service are recognized as citizens who have:
A-glaucoma in the initial stage of development in both eyes;
+B-pronounced anatomical changes or deficiencies in the position of the eyelids, eye sockets, or conjunctiva with a significant violation of visual or motor functions in both eyes;
C-corneal diseases, moderately expressed, with a non-progressive decrease in visual functions;
D-pronounced anatomical changes or deficiencies in the position of the eyelids, eye sockets or conjunctiva with a slight violation of visual or motor functions in both eyes;
E-all the above.

Not fit for military service are recognized as citizens who have:
A-glaucoma in the developed and in later stages for both eyes;
B-condition after keratoprosthesis;
C-pigmentary degeneration of the retina;
D-tapetoretinal abiotrophy;
+E-all the above.

A conscript is fit for military service when:
+A-initial stage of glaucoma in both eyes;

B-advanced stage of glaucoma in both eyes;
C-far-advanced stage of glaucoma in both eyes;
D-end-stage glaucoma in both eyes;
E-unsuitable in the presence of glaucoma.

A conscript is not fit for military service.:
A-visual acuity of both eyes 0.5 with correction and below;
B-visual acuity of both eyes with correction of 0.4 and below;
C-visual acuity of both eyes with correction of 0.3 and below;
D-visual acuity of both eyes with correction of 0.2 and below;
E-visual acuity of both eyes 0.1 with correction and below.

A conscript is not fit for military service with astigmatism in:
A-3.0 diopters;
B-4,0 diopters;
C-5.0 diopters;
+D-6.0 diopters;
E-7.0 diopters.

A conscript is not fit for military service if he is nearsighted or farsighted.:
A-up to 3.0 diopters;
B-more than 3.0 diopters;
C-more than 6.0 diopters;
D-over 9.0 diopters;
+E-more than 12.0 diopters.

A conscript is recognized as unfit for military service if the visual acuity of one eye is 0.09 or lower, and the other:
A-0.4 with correction and below;
+B-0.3 with correction and below;
C-0.2 with correction and below;
D-0.1 with correction and below;
E-0.09.

A conscript is considered unfit for military service in the absence of one eye and the visual acuity of the other eye:
A-0.4 with correction and below;
+B-0.3 with correction and below;
C-0.2 with correction and below;
D-0.1 with correction and below;
E-0.09.

DISEASES OF THE OCULOMOTOR MUSCLES

Amblyopia is called:
+A-various forms of visual impairment that are caused by functional disorders of the visual analyzer;
B-deviation of one of the eyes from the joint fixation point;
C-disruption of binocular vision;
D-restriction of eye mobility;
E-all of the above.

Amblyopia usually does not develop when:
A-friendly strabismus;
B-divergent strabismus;
+C-alternating strabismus;
D-convergent strabismus;
E-paralytic strabismus.

Binocular vision is only possible in the presence of:
A- high enough sharpness of both eyes;
B-orthophoria and heterophoria in normal fusion reflex;
C-esophoria and exophoria;
D-all of the above;
+E-correct A and B.

Binocular vision can be examined using:
A-with the help of experience with spokes;
B-Grefe's method;
C-experience with a "hole in the palm of your hand";
D-four-point test;
+E-all of the above.

Binocular vision provides the ability to determine:
A-location depth;
B-the corporeality of the object;
C-volumetric qualities;
D-parameters of the moving object;
+E-all of the above is true.

Binocular vision is formed by:
A-birth of a child;
B-one year;
C-3-5 years;
+D-7-15 years;
E-18 years old.

Binocular vision is:
A-ability to look alternately with each eye;
B-ability to look with two eyes, but without merging two monocular images;
+C-ability to merge two monocular images of an object into a single visual image;
D-ability to see a three-dimensional image separately with each eye;
E-all of the above.

Types of surgical treatment of strabismus are all except:
A-recessions;
B- prorraphia;
C-partial resection of the muscle;
D-tenotomy;
+E-all of the above is true.

A possible complication of friendly strabismus may be:
A-reducing the size of the eyeball;
B-clouding of the cornea;
+C-development of amblyopia;
D-development of cataracts;
E-development of astigmatism.

Eye torticollis is:
A-reduced vision due to strabismus;
B-forced position of the head in connection with the ptosis;
C-immobility of the eyeballs;
+D-forced position of the head in connection with paralytic strabismus;
E-rotational movements of the eyeballs.

Children with amblyopia and strabismus need to correct ametropia with glasses:
+A-as soon as possible;
B-with 3 years;
C-from 4 years;
D-with 5 years;
E-with 6 years.

All methods can be used to study binocular vision, except:
A-experience with a "hole" in the palm of your hand;
B-wheel with spokes;
+C-experience with Purkinje figures;
D-samples with reading with a pencil;
E-samples with a four-point test.

For treatment of paralytic strabismus to apply:
+A-surgical treatment;
B-orthoptic treatment;
C-diploptic treatment;
D-pleoptic treatment;
E-corrective treatment.

It is not necessary to have binocular vision:
A-visual acuity of both eyes is more than 0.2;
+B-presence of emmetropic refraction;
C-the difference in visual acuity of one and the other eye is not more than 0.4;
D-parallel position of the visual axes of both eyes when looking into the distance;
E-associated movement of all oculomotor muscles.

For binocular vision, all of these conditions are necessary, except:
A-the presence of visual acuity for each eye is not lower than 0.3-0.4;
B-the presence of a parallel position of the eyeballs when looking into the distance;
C-the presence of correct associated eye movements in the direction of the object in question;
+D-availability of full accommodation;
E-the presence of the same image size on the retina.

For paralytic strabismus, all symptoms are characteristic, except:
+A-equality of the primary and secondary deflection angles;
B-presence of the angle of strabismus;
C-the presence of a diplopia;
D-presence of possible high visual acuity;
E-restrictions on the mobility of the squinting eye.

Concomitant strabismus is characterized by:
+A-normal eye mobility;
B-restriction of eye mobility;
C-absence of mobility of the eye;
D-high visual acuity;
E-all of the above.

For of concomitant strabismus is characterized by all the symptoms except:
A-presence of the angle of strabismus;
+B-presence of diplopia;
C-the presence of the full volume of mobility of the eyeballs;
D-the presence of reduced visual acuity;
E-equality of the primary and secondary angles of deviation.

For the formation of binocular vision, the following condition is necessary:
A-parallel position of the axes of both eyes;
B-normal convergence of axes when looking at closely spaced objects;
C-associated eye movements in the direction of the fix object, normal fusion;
D-visual acuity of both eyes not less than 0.4;
+E-all of the above.

Visual fixation is called:
A-static refraction;
B-dynamic refraction;
C-stigmatism;
D-anisometropy;
+E-relatively fixed position of the eye on the object in question.

Strabismus is considered secondary if it was caused by:
A-other eye disease;
+B-General disease of the body;
C-refractive errors;
D-any of the following.

Strabismus is considered primary if it was caused by:
A-other eye disease;
B-general disease of the body;
+C-mainly refractive errors;
D-all of the above.

Strabismus is considered permanent if:
+A-angle of deviation of the eyes does not change;
B-angle of deviation of the eyes is not constant;
C-eyes take the correct position;
D-all of the above.

Strabismus is called:
A-disruption of the normal mobility of the eyes;
+B-deviation of one of the eyes from the joint fixation point;
C-deviation of both eyes from the joint fixation point;
D-reduced visual acuity in one or both eyes;
E-change in refraction of one eye.

Strabismus is characterized by:
A-incorrect position of the eyeballs;
B-violation of binocular vision:
C-impaired mobility of the squinting eye;

+D-true A and B;
E-all of the above is true.

Treatment of amblyopia is called:
A-surgical treatment;
B-orthoptic treatment;
B-diploptic treatment;
+D-pleoptic treatment;
E-corrective treatment.

The direct cause of strabismus is:
A-low vision in one of the eyes;
B-violation of the bifixation mechanism;
C-anisometropia;
D-astigmatism;
+E-all of the above.

Nystagmus is:
A-atrophic changes in the optic nerve;
+B-oscillatory movements of the eyeballs;
C-type of color perception disorder;
D-congenital pathology of the cornea;
E-inflammatory process in the lens.

The main signs of concomitant strabismus are all except:
A-movement of the eyes in full;
B-presence of equality of the angles of the secondary and primary deviation;
+C-restrictions on the mobility of the squinting eye;
D-reduced vision;
E-no double vision.

In the direction of the deviation of the eyes, strabismus may be:
A-converging;
B-divergent;
C-vertical;
D-only A and B;
+E-any of the above.

With binocular vision on a four-point color test, the subject sees through red-green glasses:
+A-four mugs;
B-five circles;
C-two, then three mugs;
D-patterns are not noted.

When converging paralytic strabismus is affected:
A-upper rectus muscle;
B-internal rectus muscle;
C-lower rectus muscle;
+D-external rectus muscle;
E-upper oblique muscle.

The light reflex of the Ophthalmoscope is located on the cornea of the squinting eye in the middle of the distance from the edge of the pupil to the edge of the cornea in its inner half, which corresponds to:
A-converging strabismus with an angle of 15°;
B-converging strabismus with an angle of 30°;
+C-divergent strabismus with an angle of 30°;

D-converging strabismus with an angle of 45°;
E-divergent strabismus with an angle of 45°.

The light reflex from the Ophthalmoscope is located on the cornea of the squinting eye in the middle of the distance from the edge of the pupil to the edge of the cornea in its outer half, which corresponds to:
A-converging strabismus with an angle of 15°;
B-divergent strabismus with an angle of 15°;
+C-converging strabismus with an angle of 30°;
D-divergent strabismus with an angle of 30°;
E-converging strabismus with an angle of 45°.

The light reflex from the Ophthalmoscope is located on the cornea of the squinting eye along the inner edge of the pupil, which corresponds to:
A-converging strabismus with an angle of 15°;
+B-divergent strabismus with an angle of 15°;
C-converging strabismus with an angle of 30°;
D-divergent strabismus with an angle of 30°;
E-converging strabismus with an angle of 45°.

The light reflex from the Ophthalmoscope is located on the cornea of the squinting eye along its inner edge, which corresponds to:
A-converging or diverging strabismus with an angle of 15°;
B-converging strabismus with an angle of 30°;
C-divergent strabismus with an angle of 30°;
D-converging strabismus with an angle of 45°;
+E-divergent strabismus with an angle of 45°.

The light reflex from the Ophthalmoscope is located on the cornea of the squinting eye along its outer edge, which corresponds to:
A-converging strabismus with an angle of 15°;
B-converging strabismus with an angle of 30°;
C-divergent strabismus with an angle of 30e;
+D-converging strabismus with an angle of 45°;
E-divergent strabismus with an angle of 45°.

The light reflex from the Ophthalmoscope is located on the cornea of the squinting eye along the outer edge of the pupil, which corresponds to:
+A-converging strabismus with an angle of 15°;
B-divergent strabismus with an angle of 15°;
C-converging strabismus with an angle of 30°;
D-divergent strabismus with an angle of 30°;
E-converging strabismus with an angle of 45°.

The joint operation of motor and sensory systems of the eye provides:
A-simultaneous orientation of the visual axes on the object of fixation;
B-forms a pair of similar monocular images of an object on the retina;
C-contributes to the fusion of monocular images into a single image;
D-correct location of the stimulus;
+E-all of the above is true.

Concomitant strabismus can be:
A-accommodation;
B-partially accommodative;
C-non-accommodation;
D-intermittent;
+E-all of the above is true.

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Department of Otorhinolaryngology with Ophthalmology
Faculty of Medicine Course 4
The discipline of Ophthalmology.

Ticket to the test № 1.

1. History of foreign ophthalmology. Pepi Anck Iri, Johann Kepler, Hermann Helmholtz, Albrecht Grefe, Harold Ridley their contributions to ophthalmic science.
2. Accommodation, its mechanism and age characteristics. Paralysis and spasm of accommodation.
3. Retinal pigmentary dystrophy. Clinical manifestations. Treatment. Forecast.

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Ticket to the test № 2

1. Domestic ophthalmology. A.N. Maklakov, S.S. Golovin, V.P. Filatov, T.I. Eroshevsky, S.N. Fedorov, M.M. Krasnov, A.P. Nesterov, their contribution to the development of domestic and world ophthalmology.
2. Inflammatory diseases of the eyelids. Etiology, clinic and treatment.
3. Senile retinal dystrophy. Types of dystrophy, clinical manifestations.

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Ticket to the test № 3

1. Ophthalmology as a branch of surgery. Achievements of modern ophthalmology.
2. Diseases of the eyelids associated with the pathology of their muscular apparatus. Clinic and methods of treatment.
3. Retinal detachment. The main causes of the pathology. Pathogenesis of the disease. Clinical picture and diagnosis. Principles of treatment.

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Ticket to the test № 4

1. The structure of the visual analyzer. Its parts and their functions.
2. General symptoms of inflammatory diseases of the connective membrane of the eye. Principles of treatment.
3. Primary and secondary retinal detachment. Principles of differential diagnosis and treatment.

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Ticket to the test № 5

1. The structure of the fibrous capsule of the eye, its value. Identification points on the eyeball.
2. Acute epidemic conjunctivitis. Etiology, clinic, prevention and treatment.
3. Types of optic neuritis. Causes and clinical manifestations. Diagnosis and treatment principles

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Ticket to the test № 6

1. Anatomy and histological structure of the cornea. Its nutrition. Features of the structure of the protein shell.
2. Gonoblennorrhea. Etiology, prevention, clinical manifestations and treatment. Complications of gonoblennorrhea.
3. Congestive disc of the optic nerve. Ophthalmoscopic picture, differential diagnosis.

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Ticket to the test № 7

1. The vascular membrane of the eye, its parts, and their functional features.
2. Diphtheria conjunctivitis. Etiology, prevention, clinic and treatment.
3. Atrophy of the optic nerve. Clinical picture and principles of treatment.

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Ticket to the test № 8

1. Anatomy and functions of the iris. Her congenital pathology.
2. Diplobacillary (angular) conjunctivitis. Etiology, clinic, treatment.
3. The concept of intraocular pressure. Circulation of intraocular fluid, its outflow pathways. The structure of the drainage system of the anterior chamber angle. Gonioscopy.

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Ticket to the test № 9

1. Intraocular muscles, their function and innervation.
2. The main types of viral conjunctivitis. Features of the clinical picture. Principles of treatment.
3. Methods for studying intraocular pressure. Normal intraocular pressure and its changes.

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Ticket to the test № 10

1. The structure of the ciliary body, its functional features. Choroid. Structure, anatomy, and histology of the lens. Age-related features of the lens.
2. Etiology, epidemiology, clinic and treatment of trachoma. Its complications and consequences.
3. The main types of glaucoma. General symptoms of glaucoma.

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Ticket to the test № 11

1. Anatomy and histology of the retina. Jagged line and yellow spot. Nutrition pathways and functional features of the retina.
2. Dacryoadenitis, causes, clinic and treatment of the disease. The Schirmer test. Mikulich and Sjogren syndromes.
3. Congenital glaucoma. The main causes of the disease. Clinical manifestations and principles of treatment.

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Ticket to the test № 12

1. Nerve pathways and cortical visual analyzer. The importance of anatomical features in the topical diagnosis of the pathological process.
2. Acute and chronic dacryocystitis. Causes of development. Functional tests for the patency of the lacrimal tract. Principles of treatment of dacryocystitis.
3. Early diagnosis of primary glaucoma. Classification. Loading and unloading tests, daily tonometry.

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Ticket to the test № 13

1. The front and back cameras of the eye. Composition and functions of intraocular fluid. The value of the angle of the anterior chamber of the eye in the outflow of watery moisture.
2. Inflammatory diseases of the eye socket. Clinical manifestations and principles of treatment. Exophthalmos.
3. Acute attack of angle-closure glaucoma. Causes, pathogenesis, and clinic. First aid for an acute attack. Differential diagnosis with iridocyclitis.

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Ticket to the test № 14

1. Structure, anatomy and histology of the lens. Age-related features of the lens.
2. General symptoms of diseases of the cornea. Corneal syndrome. Corneal infiltration and its development. Types of corneal vascularization.
3. Types of glaucoma treatment. Secondary glaucoma.

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Ticket to the test № 15

1. Anatomy and chemical composition of the vitreous body, its significance for the vital activity of the eye.
2. Changes in the shape and size of the cornea. Classification of keratitis. The concept of corneal syndrome. Complications of keratitis.
3. Medical examination of patients with glaucoma. Stable and unstabilized glaucoma.

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Ticket to the test № 16

1. Blood supply and innervation of the eyeball.
2. Erosion and creeping corneal ulcer. Diagnosis, clinical manifestations, principles of treatment. Methods of administration of antibiotics for corneal diseases.
3. The concept of binocular vision. Monocular and simultaneous vision. Methods of studying binocular vision.

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Ticket to the test № 17

1. The anatomy of the eye socket, its contents. The functional value of the orbit.
2. Tuberculosis-allergic keratoconjunctivitis. Causes, clinic, diagnosis and treatment.
3. Friendly strabismus. Its causes, types, and diagnosis. Principles of treatment.

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Ticket to the test № 18

1. The eye socket and its surrounding cavities. Fascia of the eye.
2. Deep parenchymal keratitis. Etiology, clinical course, differential diagnosis and treatment principles.
3. Amblyopia. Pleoptic treatment.

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Ticket to the test № 19

1. Anatomical features and congenital pathology of the eyelids, their functional purpose.
2. Superficial and deep viral keratitis. Clinical manifestations and features of the course. Diagnosis and treatment.
3. Paralytic strabismus. Differential diagnosis with friendly strabismus. Principles of treatment.

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Ticket to the test № 20

1. Structure and functional features of the connective membrane of the eye.
2. Outcomes of diseases of the cornea and their treatment. Principles of keratoplasty and keratoprosthetics.
3. Blunt damage to the eye socket and appendages. Diagnosis, principles of treatment.

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Ticket to the test № 21

1. Anatomy and functional features of the tear-producing apparatus. Composition and functions of the tear. Precorneal film.
2. Episclerites and sclerites. Causes of occurrence. Diagnostics. Principles of therapy.
3. Non-penetrating damage to the anterior segment of the eye. Clinic and diagnostics. First aid and treatment principles.

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Ticket to the test № 22

1. Anatomy of the lacrimal drainage apparatus.
2. Congenital anomalies of the development of the vascular membrane and their treatment.
3. Traumatic damage to the optical media and the contents of the eye of a non-penetrating nature. Diagnosis and clinic. Principles of treatment.

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Ticket to the test № 23

1. Механизм слезоотведения. Причины его нарушения.
2. Передние увеиты. Этиология. Клиническая картина. Принципы лечения. Первая помощь при остром иридоциклите.
3. Повреждения заднего отрезка глаза при тупой травме. Их диагностика и лечение.

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Ticket to the test № 24

1. Oculomotor muscles, their functions and innervation.
2. Complications of anterior uveitis and their treatment.
3. Penetrating eye injuries. Classification according to the location of the damage. First aid.

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Ticket to the test № 25

1. The concept of visual acuity. Visual angle and its relationship to visual acuity. Methods of visual acuity research.
2. Choroiditis and chorioretinitis. Etiology, clinical manifestations and treatment.
3. Diagnosis of penetrating wounds of the eye. Determination of the presence of an intraocular foreign body and its localization.

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Ticket to the test № 26

1. The theory of color perception. Methods of color vision research. Congenital and acquired color perception disorders.
2. Causes of lens opacity. Classification of cataracts by localization of opacities. Diagnosis of cataracts.
3. Methods for removing intraocular foreign bodies. Metal eyes.

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Ticket to the test № 27

1. Light perception and its research. Light and dark adaptation. Types of hemeralopia.
2. Classification of cataracts according to M. I. Averbakh. Congenital and acquired cataracts. Principles of treatment.
3. Complications of penetrating eye wounds. Sympathetic inflammation.

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Ticket to the test № 28

1. Field of view. Methods for investigating this function. Boundaries and pathological changes in the visual field. Types of cattle.
2. Stages of development of age-related cataracts. Diagnosis and treatment. Types of cataract extraction.
3. Eye burns, first aid and treatment. Electroophthalmia.

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Ticket to the test № 29

1. 1. Methods of investigation of the protective apparatus of the eye and its pathology.
2. 2. Surgical treatment of cataracts. Secondary cataract. Afakia. Signs of aphakia, ways to correct it. Implantation of an artificial lens.
3. 3. Eye lesions with trinitrotoluene. Clinical picture. Treatment.

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Ticket to the test № 30

1. Methods of investigation of the anterior segment of the eye and its pathology.
2. Congenital cataract. The most common types of lens opacity. Principles of treatment.
3. Professional eye lesions with lead compounds. Clinic, prevention and treatment.

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Ticket to the test № 31

1. Methods of investigation of the posterior segment of the eye and its pathology.
2. Types of pathological changes in the vitreous body and their treatment.
3. Tobacco amblyopia. Causes of occurrence. Clinical picture. Prevention and treatment.

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Ticket to the test № 32

1. The concept of diopter calculus. The eye as an optical system. Physical and clinical refraction of the eye.
2. Retinal changes in hypertension and kidney diseases.
3. Tasks, functions and principles of the medical and social expertise service.

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Ticket to the test № 33

1. Clinical refraction of the eye. Subjective and objective methods of studying the clinical refraction of the eye.
2. Retinal changes in blood diseases. Leukemia, anemia, hemorrhagic purpura, erythremia.
3. Indications for the establishment of a group of visual disability. Rehabilitation of the blind.

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Ticket to the test № 34

1. Methods of correction of refractive errors of the eye.
2. Absolute and relative ophthalmological indications for termination of pregnancy.
3. Benign and malignant neoplasms of the eyes and appendage. Their diagnosis and treatment principles.

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Ticket to the test № 35

1. Farsightedness. Clinical features, severity, and methods of correction.
2. Acute obstruction of the central retinal artery. Causes, clinic, first aid and treatment.
3. Blindness and low vision. Types of blindness.

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Ticket to the test № 36

1. Myopia. Clinical features, severity, and methods of correction.
2. Retinal vein thrombosis. Clinical manifestations and principles of treatment.
3. Types of glasses and their application.

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Ticket to the test № 37

1. Progressive myopia. Diagnosis, medical examination, clinic and treatment.
2. Diabetic retinopathy. Classification, clinical manifestations, complications. Treatment of ocular manifestations of diabetes mellitus.
3. Atropine, scopolamine, homotropin, epinephrine. Their effect on the eye, indications and contraindications for use.

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Ticket to the test № 38

1. Astigmatism, its types, diagnosis and correction.
2. Retinal changes in rheumatism. Clinical manifestations and principles of treatment.
3. Pilocarpine, armin, tosmilen, timolol, xalatan. Their effect on the eye, indications and contraindications for use.

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Ticket to the test № 39

1. Anisometropy and aniseikonia. Methods for correcting anisometropy. Special types of vision correction. Contact lenses.
2. Retinitis. Central and metastatic retinitis. Diagnosis and clinical picture. Principles of treatment. Outcomes.
3. Dicaine, lidocaine, cocaine, inocaine. Their effect on the eye, indications and contraindications for use.

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Ticket to the test № 40

1. Types of optical lenses and glasses. Indications for their use. Determination of the type and strength of the optical glass.
2. Retinal toxoplasmosis. Diagnosis, clinic, treatment, and outcomes.
3. Ways of introducing drugs into the eye. Indications for their use.