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Department of Obstetrics and Gynecology No. 1

Methodological materials

Practice on obtaining professional skills and experience of professional activity

"Doctor's assistant"

the main professional educational program of higher education is a specialty program in the specialty 31.05.01 Medical business (partially implemented in English)

Vladikavkaz

The manual provides a description of the implementation of basic practical skills, the mastery of which is mandatory in the course of studying obstetrics by students of the medical faculty.

The methodological manual includes a list of modern literary sources.

Interview. The first meeting with a pregnant woman, as a rule, takes place in outpatient settings (antenatal clinic, perinatal centers), but it also happens in a hospital. At the first visit of the patient, the doctor should conduct a survey with a thorough history taking (general and obstetric-gynecological), assess the general condition, genital organs and, if necessary, use additional examination methods. All the information received is recorded in the outpatient card of the pregnant woman or in the history of childbirth in the hospital.

Passport data. Pay attention to the age of the pregnant woman, especially the primipara. The complicated course of pregnancy and childbirth is more often observed in "elderly" (over 30 years old) and "young" (under 18 years old) primiparas. The age of a pregnant woman 35 years and older requires prenatal diagnosis due to a higher risk of having a child with congenital and hereditary pathologies.

Complaints. First of all, they find out the reasons that prompted the woman to seek medical help. A visit to the doctor in the first trimester of pregnancy is usually associated with the cessation of menstruation and the assumption of pregnancy. Often during this period of pregnancy, patients complain of nausea, vomiting and other health disorders. With a complicated course of pregnancy (a miscarriage that has begun, an ectopic pregnancy, concomitant gynecological diseases), there may be bloody discharge from the genital tract. Complaints about violations of the functions of internal organs may be due to extragenital diseases (cardiovascular, diseases of the respiratory system, kidneys, digestive system, etc.).

The complaints of pregnant women should be treated very carefully and recorded in a medical document.

*Working and living conditions.*Professional, domestic and environmental hazards that can adversely affect the course of pregnancy and fetal development are carefully ascertained (living in environmentally unfavorable regions, hard physical labor, work associated with vibration, chemicals, a computer, prolonged static loads, etc.). Be sure to ask questions about smoking (including passive), alcoholism, drug addiction.

*Heredity and past diseases.*They find out if the family of the pregnant woman and / or her husband had multiple pregnancies, hereditary diseases (mental diseases, blood diseases, metabolic disorders), as well as congenital and hereditary developmental anomalies in the next of kin.

It is necessary to obtain information about all previously transferred diseases, starting from childhood. So, for example, rickets suffered in childhood can cause pelvic deformity, which will complicate the course of rolls. Indirect signs of past rickets are late teething and the beginning of walking, skeletal deformities, etc. Poliomyelitis, tuberculosis in childhood can also lead to violations of the pelvic structure. Measles, rubella, rheumatism, tonsillitis, recurrent tonsillitis and other infectious diseases often cause girls to lag behind in physical and sexual development. Diphtheria of the vulva and vagina may be accompanied by the formation of cicatricial constrictions.

Non-communicable and infectious diseases transferred in adulthood are also clarified. Diseases of the cardiovascular system, liver, lungs, kidneys and other organs can complicate the course of pregnancy and childbirth, and pregnancy and childbirth can, in turn, exacerbate chronic diseases or cause relapses.

If there was a history of surgical interventions, then it is better to obtain medical documents about them with recommendations from specialists on the tactics of conducting a real pregnancy and childbirth. Of great importance are information about past injuries (skull, pelvis, spine, etc.).

*menstrual function.*Find out at what age the first menstruation appeared (menarche), after what period of time regular menstruation was established; the duration of the menstrual cycle, the duration of menstruation, the amount of blood lost, soreness; whether the nature of menstruation has changed after the onset of sexual activity, childbirth, abortion; first day of last menstruation.

*sexual function.*They collect information about the onset of sexual activity, find out what marriage is in a row, whether there are pains and bloody discharge during sexual intercourse, what methods of contraception were used before pregnancy, and the interval from the beginning of regular sexual activity to the onset of pregnancy. The absence of pregnancy within 1 year of regular sexual activity without the use of contraceptives may indicate infertility and indicate certain disorders of the reproductive system.

Information about the husband (partner) of the pregnant woman is also required: his state of health, age, profession, smoking, alcoholism, drug addiction.

Gynecological history. It is necessary to obtain information about past gynecological diseases that may affect the course of pregnancy, childbirth and the postpartum period (uterine fibroids, tumors and tumor-like formations of the ovaries, diseases of the cervix, etc.). Particular attention should be paid to previous surgical interventions on the genitals, primarily on the uterus, leading to the formation of a scar (myomectomy). An extract from a medical institution with a detailed description of the operation performed is required. For example, in case of myomectomy, it is necessary to obtain information about the access of surgical intervention (laparotomic or laparoscopic), with or without opening the uterine cavity, etc.

Find out the pregnant woman's complaints about pathological discharge from the genital tract (abundant, purulent, mucous, bloody, etc.), which may indicate a gynecological disease.

It is important to get information about past sexually transmitted diseases (HIV infection, syphilis, gonorrhea, chlamydia, etc.).

Obstetric history. First of all, it is necessary to clarify what the real pregnancy is (first, repeated) and what kind of childbirth is coming.

Note the number of artificial or spontaneous abortions (miscarriages). If there were abortions, then at what stage of pregnancy, were they accompanied by complications (endometritis, inflammatory diseases of the uterus, perforation of the uterus, etc.). If possible, specify the cause of spontaneous abortion. Abortions preceding pregnancy can lead to miscarriage, a pathological course of childbirth.
Multiparous women receive detailed information about how previous pregnancies and childbirth proceeded. If there were pregnancy complications (preeclampsia, miscarriage, etc.), then detailed information is needed about this, since they are important in predicting the course and outcome of this pregnancy and the upcoming birth. Find out whether the birth was timely, premature or late, spontaneous or operative (caesarean section, obstetric forceps, vacuum extraction of the fetus).
When delivering by cesarean section, it is necessary to clarify, if possible, the indications for it, whether it was performed on a planned or emergency basis, how the postoperative period proceeded, on what day after the operation the patient was discharged.

When taking an obstetric history, special attention should be paid to the condition of the child at birth (weight, length, Apgar score, whether the child was discharged from the maternity hospital or transferred to the 2nd stage of nursing and in connection with what), as well as the psychophysical development of the child at

present day. In case of an unfavorable outcome, it is necessary to find out at what stage the death of the fetus / newborn occurred: during pregnancy (antenatal death), during childbirth (intranatal death), in the early neonatal period (postnatal death). It should also clarify the possible cause of death (asphyxia, birth trauma, hemolytic disease, malformations, etc.).

Detailed information about the course and outcomes of previous pregnancies and childbirth allows us to identify high-risk patients who need special attention and more careful monitoring.

Objective examination.After getting acquainted with the anamnesis, the patients proceed to an objective study, which begins with an examination.

On examination, attention is paid to the growth of the pregnant woman, physique, fatness, the condition of the skin, visible mucous membranes, mammary glands, the size and shape of the abdomen.

The skin during pregnancy may have certain features: pigmentation of the face, nipple area, white line of the abdomen. In the second half of pregnancy, so-called pregnancy bands often appear. Combs, ulcers on the skin require a special examination. Paleness of the skin and visible mucous membranes, cyanosis of the lips, yellowness of the skin and sclera, swelling are signs of a number of serious diseases.

The objective signs of a former pregnancy and childbirth include a decrease in the tone of the muscles of the anterior abdominal wall, the presence of striae gravidarum.

Pay attention to the physique, possible deformations of the skeleton, as they can affect the structure of the pelvis.

Violations of the hormonal regulation of the reproductive system can lead to underdevelopment of the mammary glands, insufficient expression of hair growth in the axillary region and on the pubis, or, conversely, excessive hair growth on the face, lower extremities, and along the midline of the abdomen. In women, the

features of masculinization are possible - broad shoulders, male structure of the pelvis.

The severity of subcutaneous adipose tissue should be assessed. Both alimentary and endocrine obesity of the II-III degree adversely affects the course of pregnancy and childbirth.

Measure the height and determine the body weight of the pregnant woman. When determining body weight, one should take into account not its absolute values, but the body mass index, which is calculated taking into account the patient's height [body weight in kilograms / (height in meters) 2], which is normally 18-25 kg / m2. With low stature (150 cm and below), narrowing of the pelvis of varying degrees is often observed, women of high stature often have a male-type pelvis.

Examination of the abdomen in the third trimester of pregnancy allows you to find out deviations from its normal course. In normal pregnancy and the correct position of the fetus, the abdomen has an ovoid (ovoid) shape; with polyhydramnios, the abdomen is spherical, its size exceeds the norm for the expected gestational age; in the transverse position of the fetus, the abdomen takes the form of a transverse oval. With overstretching or divergence of the muscles of the anterior abdominal wall (more often in multiparous), the abdomen may be sagging. The shape of the abdomen also changes with a narrow pelvis.

Examination of internal organs(cardiovascular system, lungs, digestive organs, kidneys), as well as the nervous system, is carried out according to the system generally accepted in therapy.

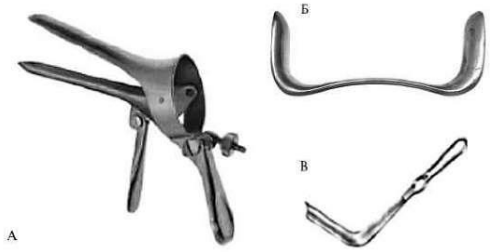
Obstetric examinationincludes determining the size of the uterus, examining the pelvis, assessing the position of the fetus in the uterus based on special obstetric techniques. Methods of obstetric examination depend on the gestational age.

In the first trimester of pregnancy, the size of the uterus is determined by a two-handed vaginal-abdominal examination, which begins with an examination of the external genitalia. The study is carried out in sterile rubber gloves on a gynecological chair. The woman lies on her back, her legs are bent at the hip and

knee joints and divorced; when examining on a bed, a roller is placed under the sacrum.

The external genital organs are treated with an antiseptic solution. The large and small labia are parted with I and II fingers of the left hand and examine the external genital organs (vulva), the mucous membrane of the entrance to the vagina, the external opening of the urethra, the excretory ducts of the large glands of the vestibule and the perineum.

In order to examine the walls of the vagina and cervix, a study is carried out using mirrors. This determines the cyanosis due to pregnancy, and various pathological changes in the disease of the vagina and cervix. Vaginal mirrors (Fig. 6.1) are folding, spoon-shaped, metal or plastic. The folded speculum is inserted to the fornix of the vagina in a closed form, then the folds are opened, and the cervix becomes available for inspection. The walls of the vagina are examined with the gradual removal of the mirror from the vagina.

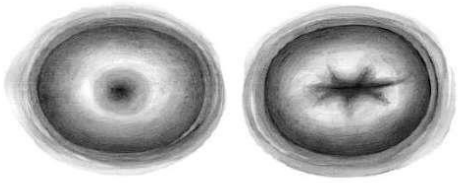


Rice. 6.1. Vaginal mirrors (A - folding, B - spoon-shaped, C - lift)

*With a vaginal (finger) examination*fingers of the left hand spread large and small labia; the fingers of the right hand (II and III) are inserted into the vagina, the I finger is retracted upward, IV and V are pressed against the palm and rest against the perineum. This determines the condition of the muscles of the pelvic floor, the walls of the vagina (folding, extensibility, loosening), the vaults of the vagina, the cervix (length, shape, consistency) and the external pharynx of the cervix (closed, open, round or slit-like).

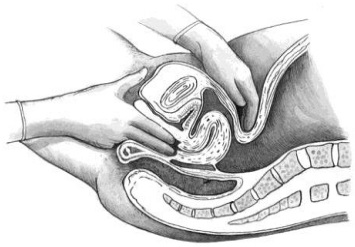
An important criterion for former births is the shape of the external os of the cervix, which in those who have given birth has the shape of a longitudinal slit, and in those who have not given birth it is round or dotted (Fig. 6.2). Women who have

given birth may have cicatricial changes after ruptures of the cervix, vagina and perineum.



Rice. 6.2. The shape of the external os of the cervix of a nulliparous (A) and a woman who has given birth (B)

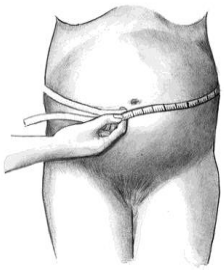
After palpation of the cervix, a two-handed vaginal-abdominal examination is started (Fig. 6.3). With the fingers of the left hand, gently press on the abdominal wall towards the pelvic cavity towards the fingers of the right hand, located in the anterior fornix of the vagina. Bringing together the fingers of both examining hands, palpate the body of the uterus and determine its position, shape, size and consistency. After that, they begin to study the fallopian tubes and ovaries, gradually moving the fingers of both hands from the corner of the uterus to the side walls of the pelvis. To determine the capacity and shape of the pelvis, the inner surface of the bones of the pelvis, sacral cavity, side walls of the pelvis and symphysis are examined.



Rice. 6.3. Bimanual vaginal-abdominal examination

When examining a pregnant woman in the II-III trimesters, it is necessary to measure the circumference of the abdomen at the level of the navel (Fig. 6.4) and the height of the uterine fundus (Fig. 6.5) with a centimeter tape when the woman is lying on her back. The height of the fundus of the uterus above the pubic joint can also be determined by a tazomer. These measurements are carried out at each

visit to the pregnant woman and compare the data obtained with gestational standards.

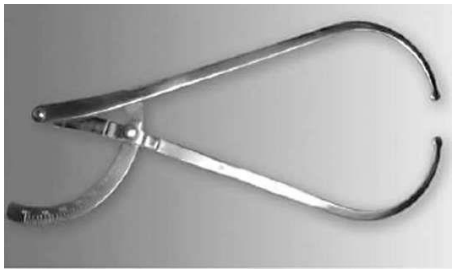


Rice. 6.4. Measuring the circumference of the abdomen

Rice. 6.5. Measurement of the height of the fundus of the uterus

Normally, by the end of pregnancy, the abdominal circumference does not exceed 100 cm, and the height of the uterine fundus is 35-36 cm. An abdominal circumference of more than 100 cm is usually observed with polyhydramnios, multiple pregnancy, large fetus, transverse position of the fetus and obesity.

Determining the size of the pelvisseems extremely important, since their decrease or increase can lead to a significant disruption in the course of labor. The dimensions of the small pelvis are of the greatest importance during childbirth, which are judged by measuring certain sizes of the large pelvis with the help of a special tool - a tazomer (Fig. 6.6).



Rice. 6.6. Obstetric pelvis

The tazomer has the form of a compass, equipped with a scale on which centimeter and half-centimeter divisions are applied. At the ends of the branches of the tazomer there are buttons that are applied to the protruding points of the large pelvis, somewhat squeezing the subcutaneous fatty tissue. To measure the transverse size of the outlet of the pelvis, a tazomer with crossed branches was designed.

The pelvis is measured with the woman lying on her back with her stomach bare and her legs folded. The doctor becomes to the right of the pregnant woman facing her. The branches of the tazomer are picked up in such a way that the I and II fingers hold the buttons. The scale with divisions is directed upwards. Forefingers feel for the points, the distance between which is to be measured, pressing the buttons of the parted branches of the tazomer to them. On the scale mark the value of the corresponding size.

The transverse dimensions of the pelvis are determined - distantia spinarum, distantia cristarun, distantia trochanterica and the direct size - conjugata externa.

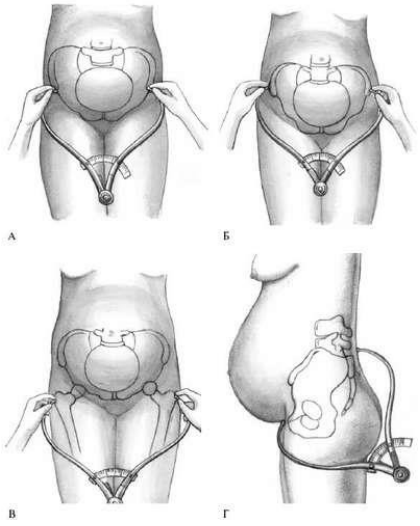
Distantia spinarum-distance between the anterior superior iliac spines. The buttons of the tazomer are pressed against the outer edges of the anterior superior spines. This size is usually 25-26 cm (Fig. 6.7, a).

Distantia cristarum-the distance between the most distant points of the iliac crests. After measuring distantia spinarum, the buttons of the tazomer are moved from the spines but to the outer edge of the iliac crests until the greatest distance is determined. On average, this size is 28-29 cm (Fig. 6.7, b).

Distantia trochanterica -distance between the greater trochanters of the femur. The most protruding points of the large skewers are determined and the buttons of the tazomer are pressed against them. This size is 31-32 cm (Fig. 6.7, c).

The ratio of transverse dimensions is also important. Normally, the difference between them is 3 cm; a difference of less than 3 cm indicates a deviation from the norm in the structure of the pelvis.

*Conjugata externa - external conjugate,*allowing to indirectly judge the direct size of the small pelvis. To measure it, a woman should lie on her left side, bending her left leg at the hip and knee joints, and keep her right leg extended. The button of one branch of the tazomer is placed in the middle of the upper outer edge of the symphysis, the other end is pressed against the supracacral fossa, which is located under the spinous process of the V lumbar vertebra, corresponding to the upper corner of the sacral rhombus. You can determine this point by sliding your fingers down the spinous processes of the lumbar vertebrae. The fossa is easily identified under the projection of the spinous process of the last lumbar vertebra. The outer conjugate is normally 20-21 cm (Fig. 6.7, d).



Rice. 6.7. Measuring the size of the pelvis. A - Distantia spinarum; B - Distantia cristarum; B - Distantia trochanterica; G - Conjugata externa

The external conjugate is important - by its size one can judge the size of the true conjugate (the direct size of the entrance to the small pelvis). To determine the true conjugate, 9 cm is subtracted from the length of the outer conjugate. For example, if the outer conjugate is 20 cm, then the true conjugate is 11 cm; if the outer conjugate is 18 cm long, then the true conjugate is 9 cm, and so on.

The difference between the external and true conjugate depends on the thickness of the sacrum, symphysis and soft tissues. The thickness of the bones and soft tissues in women is different, so the difference between the size of the outer and true

conjugates does not always correspond exactly to 9 cm. The true conjugate can be more accurately determined by the diagonal conjugate.

Diagonal conjugate (conjuigata diagonalis) is the distance between the lower edge of the symphysis and the most protruding part of the promontory of the sacrum. This distance can be measured only during vaginal examination, if the middle finger reaches the sacral promontory (Fig. 6.8). If this point cannot be reached, then the distance exceeds 12.5-13 cm and, therefore, the direct size of the entrance to the pelvis is within the normal range: equal to or greater than 11 cm. If the sacral cape is reached, then the point of contact with the lower edge is fixed on the arm symphysis, and then measure this distance in centimeters.

Rice. 6.8. Diagonal Conjugate Measurement

To determine the true conjugate, 1.5–2 cm is subtracted from the size of the diagonal conjugate.

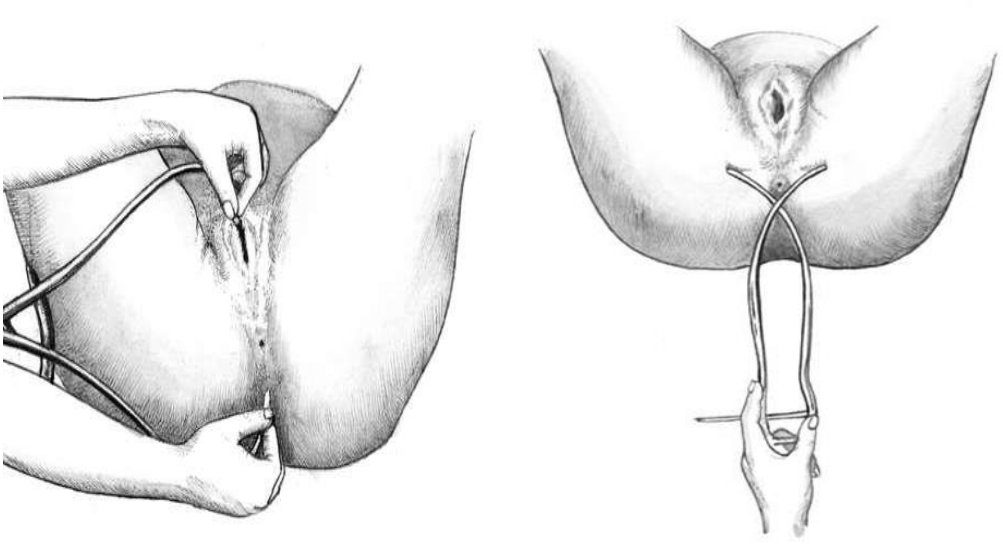
If during the examination of a woman there is a suspicion of a narrowing of the exit of the pelvis, then the dimensions of the exit plane are determined.

The dimensions of the outlet of the pelvis are determined as follows. The woman lies on her back, her legs are bent at the hip and knee joints, divorced and pulled up to the stomach.

*Straight size*the exit of the pelvis is measured with a conventional tazometer. One button of the tazomer is pressed to the middle of the lower edge of the symphysis, the other to the top of the coccyx (Fig. 6.9, a). The resulting size (11 cm) is larger

than the true one. To determine the direct size of the pelvic outlet, subtract 1.5 cm (tissue thickness) from this value. In a normal pelvis, the direct size of the plane is 9.5 cm.

*Transverse dimension*exit - the distance between the inner surfaces of the ischial bones - is quite difficult to measure. This size is measured with a centimeter or a pelvis with crossed branches in the position of a woman on her back with her legs brought to her stomach. There is subcutaneous fatty tissue in this area, so 1-1.5 cm is added to the resulting size. Normally, the transverse size of the pelvic outlet is 11 cm (Fig. 6.9, b).



Rice. 6.9. Measurement of the size of the exit of the pelvis. A - direct size; B - transverse dimension

In the same position, women measure the pubic angle to assess the characteristics of the small pelvis, applying the first fingers to the pubic arches. With normal size and normal shape of the pelvis, the angle is 90 °.

When deforming the pelvic bones, the oblique dimensions of the pelvis are measured. These include:

- distance from the anteroposterior iliac spine of one side to the posterior superior iliac spine of the other side and vice versa;

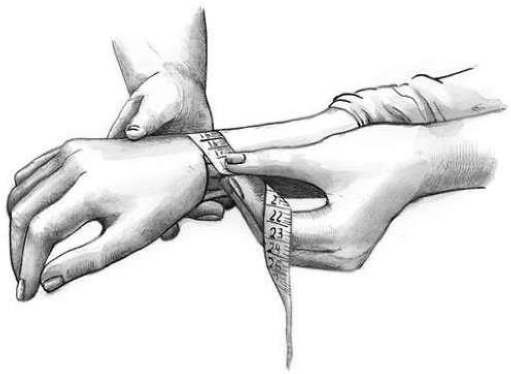
- distance from the upper edge of the symphysis to the right and left posterior superior spines;

- the distance from the supra-sacral fossa to the right or left anterior superior spines.

The oblique dimensions of one side are compared with the corresponding oblique dimensions of the other. With a normal structure of the pelvis, the size of the paired oblique dimensions is the same. A difference greater than 1 cm indicates an asymmetric pelvis.

If necessary, to obtain additional data on the size of the pelvis, its correspondence to the size of the fetal head, deformities of the bones and their joints, an x-ray examination of the pelvis is performed - X-ray pelviometry (according to indications).

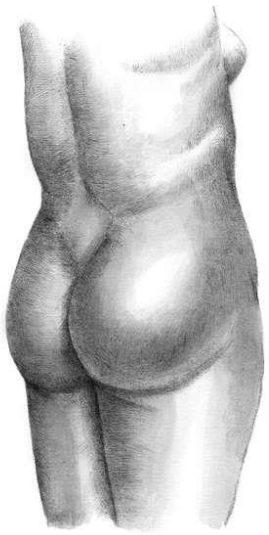
For the purpose of an objective assessment of the thickness of the pelvic bones, the circumference of the pregnant woman's wrist joint is measured with a centimeter tape (Soloviev's index; Fig. 6.10). The average value of this circumference is 14 cm. If the index is larger, it can be assumed that the pelvic bones are massive and the dimensions of its cavity are smaller than would be expected from the results of measuring the large pelvis.



Rice. 6.10. Measuring the Solovyov index

Indirect signs of the correct physique and normal size of the pelvis are the shape and size of the sacral rhombus (Michaelis rhombus). The upper border of the Michaelis rhombus is the last lumbar vertebra, the lower

sacrococcygeal articulation, and the lateral angles correspond to the posterior superior iliac spines (a sacral rhombus of the classical form can be seen at the statue of Venus de Milo). Normally, pits are visible in all four corners (Fig. 6.11). The dimensions of the rhombus are measured with a centimeter tape, normally the longitudinal size is 11 cm, the transverse size is 10 cm.



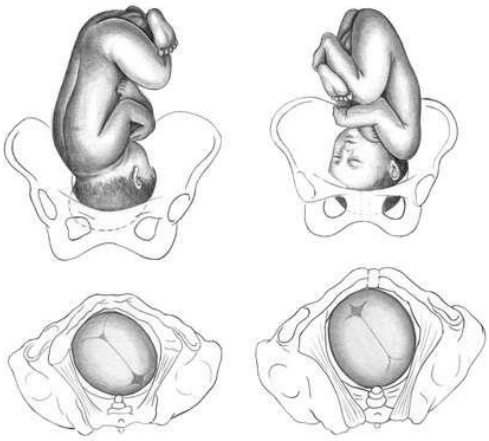
Rice. 6.11. sacral rhombus

External obstetric examination. obstetric terminology.The abdomen is palpated in the position of the pregnant woman on her back with her legs bent at the hip and knee joints. The doctor is to the right of the pregnant woman facing her.

On palpation of the abdomen, the condition of the abdominal wall, rectus abdominis muscles is determined (if there are any discrepancies, hernial protrusions, etc.). The tone of the muscles of the abdominal wall is of great importance for the course of childbirth.

Then they proceed to determine the size of the uterus, its functional state (tone, tension during the study, etc.) and the position of the fetus in the uterine cavity.

Of great importance is the determination of the position of the fetus in the uterus. In the III trimester of pregnancy, especially before childbirth and during childbirth, determine the articulation, position, position, appearance, presentation of the fetus (Fig. 6.12).



Rice. 6.12. The position of the fetus in the uterus. 1 - longitudinal position, cephalic presentation, second position, anterior view (sagittal suture in the left oblique size, small fontanel on the right front); 2 - longitudinal position, cephalic presentation, first position, posterior view (sagittal suture in the left oblique size, small fontanel on the left rear)

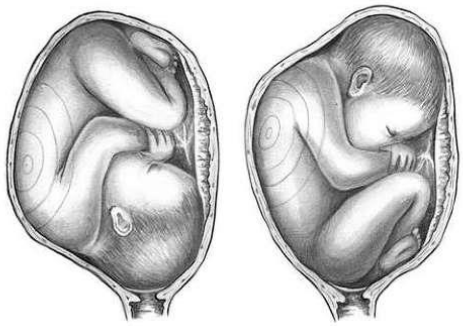
Auscultation. The heartbeat of the fetus in a pregnant woman and a woman in labor is usually listened to with an obstetric stethoscope. His wide funnel is applied to the woman's stomach.

Rice. 6.15. obstetric stethoscope

Auscultation reveals fetal heart sounds. In addition, you can catch other sounds emanating from the mother's body: the beating of the abdominal aorta, coinciding with the woman's pulse; "blowing" uterine noises that occur in large blood vessels passing along the side walls of the uterus (coincide with the woman's pulse); irregular bowel sounds. Fetal heart sounds give an idea of the condition of the fetus.

Fetal heart sounds are heard from the beginning of the second half of pregnancy and become clearer every month. They are heard from the side of the back of the fetus, and only with facial presentation, the heartbeat of the fetus is more clearly heard from the side of its chest. This is due to the fact that with facial presentation, the head is maximally extended and the breast is adjacent to the wall of the uterus closer than the back.

With occipital presentation, the heartbeat is well heard below the navel on the left in the first position, on the right - in the second (Fig. 6.16). In breech presentation, the heartbeat is heard at or above the navel.



Rice. 6.16. Listening to the heart sounds of the fetus. A - in the second position of the anterior view of the occipital presentation;

In transverse positions, the heartbeat is heard at the level of the navel closer to the fetal head.

In multiple pregnancies, the fetal heartbeat is usually clearly heard in different parts of the uterus.

During childbirth, when the fetal head is lowered into the pelvic cavity and its birth, the heartbeat is better heard closer to the symphysis.

Additional examination methods in obstetrics and perinatology

Assessment of fetal cardiac activity.Cardiac activity is the most accurate and objective indicator of the state of the fetus in the ante- and intranatal periods. For its assessment, auscultation with an obstetric stethoscope, electrocardiography (direct and indirect), phonocardiography and cardiotocography are used.

*Indirect electrocardiography*carried out by applying electrodes to the anterior abdominal wall of the pregnant woman (the neutral electrode is located on the thigh). Normally, the ventricular QRS complex, sometimes the P wave, is clearly visible on the electrocardiogram (ECG). Maternal complexes are easy to differentiate with simultaneous recording of the mother's ECG. The fetal ECG can be recorded from the 11-12th week of pregnancy, but it can be recorded in 100% of cases only by the end of the third trimester. As a rule, indirect electrocardiography is used after 32 weeks of pregnancy.

Direct electrocardiography is performed by applying electrodes to the fetal head during childbirth with the opening of the cervix by 3 cm or more. On a direct ECG, an atrial P wave, a ventricular QRS complex, and a T wave are noted.

When analyzing the antenatal ECG, the heart rate, rhythm, size and duration of the ventricular complex, as well as its shape are determined. Normally, the rhythm of the heartbeat is correct, the heart rate ranges from 120 to 160 minutes, the P wave is pointed, the duration of the ventricular complex is 0.03-0.07 s, the voltage is 9-65 μV. With increasing gestational age, the voltage gradually increases.

Phonocardiogram(FCG) of the fetus is recorded when a microphone is applied at the point of best listening to its heart sounds with a stethoscope. It is usually represented by two groups of oscillations that reflect I and II heart sounds. Sometimes III and IV tones are registered. The duration and amplitude of heart sounds fluctuate markedly in the third trimester of pregnancy, on average, the duration of the first tone is 0.09 s (0.06-0.13 s), the second tone is 0.07 s (0.05-0.09 s) . With simultaneous registration of ECG and FCG of the fetus, it is possible to calculate the duration of the phases of the cardiac cycle: phases of asynchronous contraction (AC), mechanical systole (Si), total systole (So), diastole (D). The phase of asynchronous contraction is detected between the beginning of the Q wave and I tone, its duration is 0.02-0.05 s. Mechanical systole is the distance between the beginning of I and II tone and lasts from 0.15 to 0.22 s. The general systole includes a mechanical systole and an asynchronous contraction phase. Its duration is 0.17-0.26 s. Diastole is calculated as the distance between the beginning of II and I tone, its duration is 0.15-0.25 s. The ratio of the duration of total systole to the duration of diastole at the end of an uncomplicated pregnancy averages 1.23. Despite the high information content, the methods of fetal electrocardiography and phonocardiography are laborious, and the analysis of the data obtained takes a long time, which limits their use for a quick assessment of the fetal condition. In this regard, at present, cardiotocography is widely used in obstetric practice (from the 28-30th week of pregnancy). its duration is 0.15-0.25 s. The ratio of the duration of total systole to the duration of diastole at the end of an uncomplicated pregnancy averages 1.23. Despite the high information content, the methods of fetal electrocardiography and phonocardiography are laborious, and the analysis of the data obtained takes a long time, which limits their use for a quick assessment of the fetal condition. In this regard, at present, cardiotocography is widely used in obstetric practice (from the 28-30th week of pregnancy). its duration is 0.15-0.25 s. The ratio of the duration of total systole to the duration of diastole at the end of an uncomplicated pregnancy averages 1.23. Despite the high information content, the methods of fetal electrocardiography and phonocardiography are laborious, and the

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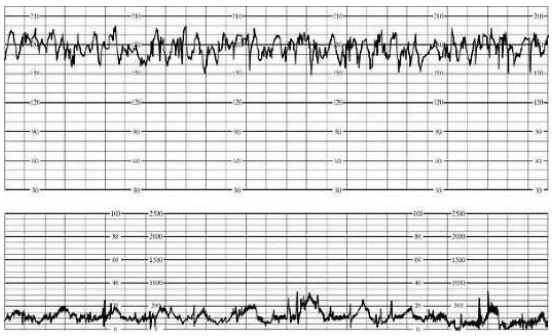
*Cardiotocography.*There are indirect (external) and direct (internal) cardiotocography. During pregnancy, only indirect cardiotocography is used; at present, it is also used in childbirth, since the use of external sensors has practically no contraindications and does not cause any complications (Fig. 6.17).

Rice. 6.17. Fetal heart monitor

An external ultrasonic sensor is placed on the anterior abdominal wall of the mother in the place of the best audibility of the fetal heart sounds, an external strain gauge is applied in the area of the uterine fundus. When using the internal registration method during childbirth, a special spiral electrode is fixed on the skin of the fetal head. The study of the cardiotocogram (CTG) begins with the determination of the basal rhythm (Fig. 6.18). The basal rhythm is understood as the average value between the instantaneous values of the fetal heartbeat, which remains unchanged for 10 minutes or more; at the same time, acceleration and deceleration are not taken into account.



Rice. 6.18. Cardiotocogram

When characterizing the basal rhythm, it is necessary to take into account its variability, i.e. the frequency and amplitude of instantaneous changes in the fetal heart rate (instantaneous oscillations). The frequency and amplitude of instantaneous oscillations are determined for each subsequent 10 minutes. The amplitude of the oscillations is determined by the magnitude of the deviation from the basal rhythm, the frequency is determined by the number of oscillations in 1 min.

In clinical practice, the following classification of types of basal rate variability is most widely used:

• silent (monotonous) rhythm with low amplitude (0.5 per minute);

• slightly undulating (5-10 per minute);

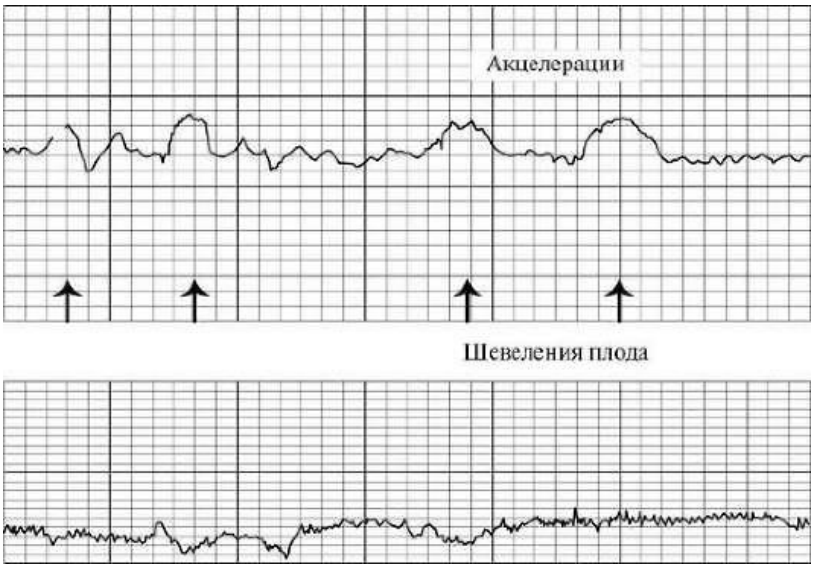
• undulating (10-15 per minute);

• saltatory (25-30 per minute).

Variability in the amplitude of instantaneous oscillations can be combined with a change in their frequency. The recording is carried out in the position of the woman on the left side for 40-60 minutes. To unify and simplify the interpretation of antenatal CTG data, a scoring system has been proposed (Table 6.1). A score of 8-10 points indicates the normal state of the fetus, 5-7 points - indicates the initial signs of a violation of his life, 4 points or less - serious changes in the state of the fetus. In addition to the analysis of fetal cardiac activity at rest, using

cardiotocography, it is possible to assess the reactivity of the fetus during pregnancy by changing its cardiac activity in response to spontaneous movements. This is a non-stress test (NST) or a stress test for the introduction of oxytocin to the mother, a short breath hold on inspiration or expiration, thermal irritation of the abdominal skin, physical activity, nipple stimulation or acoustic stimulation. It is advisable to start the study of fetal cardiac activity with the use of NBT.

Non-stress test. The essence of the test is to study the reaction of the fetal cardiovascular system to its movements. NST is called reactive if two increases in the fetal heart rate or more are observed within 20 minutes, at least 15 per minute and lasting at least 15 s, associated with fetal movements (Fig. 6.19). NBT is considered unresponsive for less than two fetal heart rate increases of less than 15 beats per minute for less than 15 seconds for 40 minutes.



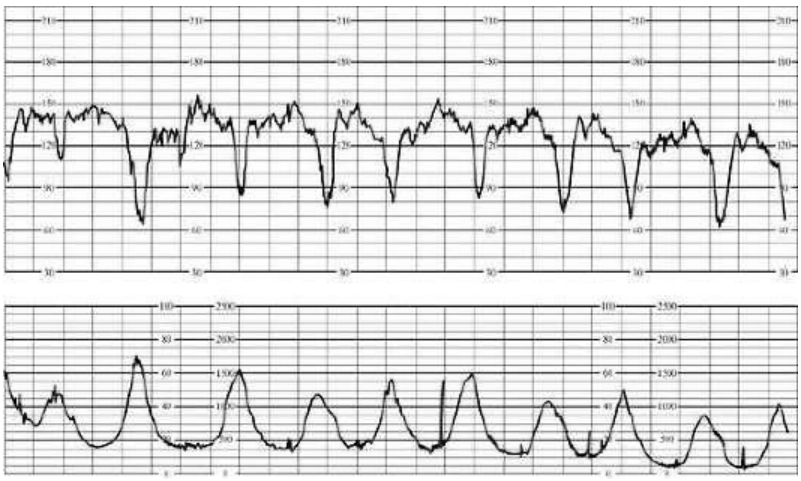
Rice. 6.19. Reactive non-stress test

Oxytocin test(contractile stress test). The test is based on the response of the fetal cardiovascular system to induced uterine contractions. A woman is injected intravenously with a solution of oxytocin containing 0.01 IU in 1 ml of isotonic sodium chloride solution or 5% glucose solution. The test can be evaluated if at least three uterine contractions are observed within 10 minutes at an infusion rate of 1 ml / min. With sufficient compensatory capabilities of the fetoplacental

system, in response to uterine contraction, a mildly pronounced short-term acceleration or early short-term deceleration is observed. Contraindications to the oxytocin test: pathology of placenta attachment and its partial premature detachment, threatened miscarriage, uterine scar. When determining the state of the fetus in childbirth, CTG evaluates the basal rhythm of the heart rate,

Depending on the time of occurrence relative to uterine contractions, four types of decelerations are distinguished: dip 0, dip I, dip II, dip III. The most important parameters of decelerations are the duration and amplitude of the time from the onset of contraction to the onset of slowdown. In the study of the time relationships of CTG and histograms, early (the beginning of a decrease in heart rate coincides with the onset of a contraction), late (30-60 seconds after the onset of uterine contraction), and decreases outside a contraction (after 60 seconds or more) are distinguished. Dip 0 usually occurs in response to uterine contractions, less often sporadically, lasts 20-30 seconds and has an amplitude of 30 per minute or more. In the second stage of labor, it has no diagnostic value.

Dip 1 (early deceleration) is a reflex reaction of the fetal cardiovascular system to compression of the head or umbilical cord during contraction. Early deceleration begins simultaneously with a contraction or with a delay of up to 30 seconds and has a gradual beginning and end (Fig. 6.20). The duration and amplitude of decelerations correspond to the duration and intensity of the contraction. Dip 1 is equally common in physiological and complicated births.



Rice. 6.20. Early decelerations

Dip II (late deceleration) is a sign of impaired uteroplacental circulation and progressive fetal hypoxia. Late deceleration occurs in connection with the contraction, but is significantly delayed - up to 30-60 s from its onset. The total duration of decelerations is usually more than 1 min. There are three degrees of severity of decelerations: mild (decreasing amplitude up to 15 per minute), medium (16-45 per minute) and severe (more than 45 per minute). In addition to the amplitude and total duration of late deceleration, the severity of the pathological process reflects the time of recovery of the basal rhythm. V-, U- and W-shaped decelerations are distinguished by shape.

Dip III is called variable deceleration. Its appearance is usually associated with the pathology of the umbilical cord and is explained by stimulation of the vagus nerve and secondary hypoxia. The amplitude of variable decelerations ranges from 30 to 90 per minute, and the total duration is 30-80 seconds or more. Decelerations are very diverse in form, which greatly complicates their classification. The severity of variable decelerations depends on the amplitude: mild - up to 60 per minute, moderate - from 61 to 80 per minute and severe - more than 80 per minute. In practice, the most convenient assessment of the state of the fetus is the time of delivery on the scale proposed by G.M. Savelyeva (1981). When using cardiotocography during childbirth, a constant assessment of the fetal cardiac activity throughout their entire length is necessary.

Establishing the position of the fetus in the uterus. Diagnosis of multiple pregnancy

Articulation (habitus) - the ratio of the head and small parts to the body. The articulation is called normal, in which the body of the fetus is bent, the head is tilted to the chest, the legs are bent at the hip and knee joints and pressed to the stomach, the arms are crossed on the chest.

The study of pregnant women is carried out sequentially, using four external obstetric techniques (Leopold's techniques). The pregnant woman (maternity) lies on her back, her legs are bent at the hip joints. The doctor is to her right, facing her face. It is necessary that the bladder and intestines be emptied before the study.

First reception. The goal is to determine the height of the uterine fundus and the part of the fetus located in its fundus.

Methodology. The palmar surfaces of both hands are placed on the bottom of the uterus, and the fingers were facing each other with nail phalanges.

The fingers are brought together and with gentle pressure down determine the level of standing of the fundus of the uterus.

Second reception. The goal is to determine the position, position, type of fetus.

Methodology. The palms of both hands are moved to the lateral surfaces of the uterus and it is determined in which direction the back and small parts of the fetus are facing. By the position of the back, the position and type of the fetus are judged.

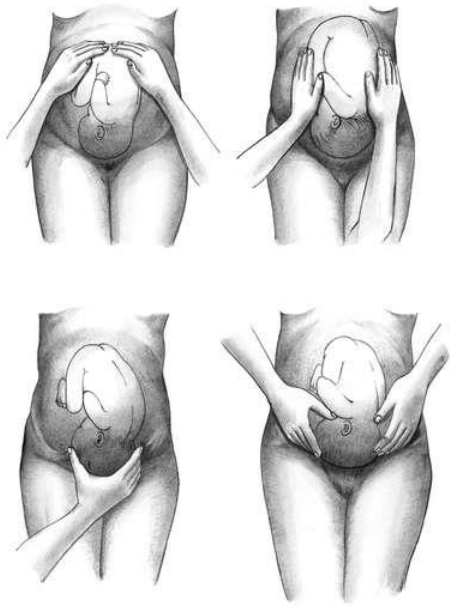
Third take. The goal is to determine the nature of the presenting part and its relation to the small pelvis.

Methodology.One hand (usually the right hand) is placed slightly above the pubic fusion so that the thumb is on one and the other four on the other side of the lower uterine segment. With a slow and careful movement, the fingers are immersed in depth and grasp the presenting part. The head is palpable in the form of a dense rounded part with distinct contours. With a breech presentation, a voluminous softish part is palpated, which does not have a rounded shape. In the transverse and oblique positions, the presenting part is not palpable.

Fourth take. The goal is to determine the presenting part and the level of its standing in relation to the entrance to the small pelvis

Methodology. The obstetrician turns to the foot end of the examined. Both palms are placed in the suprapubic region with the ends of the fingers towards, trying to connect them between the presenting part and the bosom. If the fingers of

both hands of the obstetrician penetrate between the head and the plane of entry into the small pelvis; the head is movable above the entrance to the small pelvis. If the obstetrician's hands sliding along the head diverge, the head is located in a small segment at the entrance to the small pelvis. If the obstetrician's hands sliding along the head converge, the head is a large segment at the entrance to the small pelvis; when you feel a "cylinder" - a small segment at the entrance; the feeling of a "converging wedge" - a large segment in the entrance.



Clinical signs of the onset of labor

Harbingers of childbirth:

1. 2-3 weeks before delivery, the bottom of the uterus falls below the xiphoid process. The constriction of the diaphragm stops, breathing becomes free.
2. The presenting part falls below the entrance to the pelvis, which leads to frequent urination.
3. Bulging of the umbilicus.
4. The uterus is easily excitable. Contractions appear - precursors, accompanied by pulling pains in the lower back and sacrum, do not have the correct rhythm, short, rare, of weak strength, are not accompanied by opening of the uterine os.
5. Isolation of thick viscous mucus from the vagina as a result of the expulsion of the mucous plug from the cervical canal.

6. On the eve of childbirth, the signs of "maturity" of the cervix are well expressed: it is located along the axis, softened; in multiparous, the cervical canal passes a finger.

Clinical objective signs of the onset of labor are;

a) true labor pains - contraction of the muscles of the uterus, repeated at regular intervals. Initially lasting 10-15 seconds, intervals 10-15 minutes. Then the duration of the contraction increases, and the intervals between them are reduced. The maximum duration of the contraction by the end of the opening period is 60-70 seconds, and the intervals are 1-2 minutes;

b) discharge of mucus from the cervical canal, stained with blood;

c) smoothing and opening of the cervix;

d) formation of a cone of the fetal bladder;

e) in some cases, there is an outpouring of amniotic fluid: premature (before the onset of labor) and early (in the 1st stage of labor until the cervix is fully dilated).

The dynamics of the birth act and the advancement of the head is determined by internal obstetric research, which is performed upon admission to the maternity hospital and after the discharge of amniotic fluid, in case of pathological childbirth - according to indications. Tentatively, the degree of cervical dilation during childbirth is judged by the height of the contraction ring (the border between the contracting hollow muscle and the stretching lower segment of the uterus). The cervix during childbirth is usually opened as much as the number of transverse fingers of the contraction ring is located above the pubic arch. The duration of labor in primiparas is 12-14 hours, in multiparous 7-8 hours. Pathological births are those that last more than 18 hours. Rapid delivery - duration in primiparous from 6 to 4 hours, multiparous - 4-2 hours; rapid delivery - in primiparous 4 hours or less, in multiparous - 2 hours or less.

There are three periods of childbirth:

I period - period of disclosure - smoothing and opening of the cervix. Its duration in primiparous is 10-11 hours, in multiparous - 5-6 hours.

1. Cervical dilatation occurs unevenly: both in primiparous and multiparous

women, the first half of the dilatation period lasts about 2 times longer than the second.

2. According to V. E. Rogovin, for disclosure from 2 to 4 cm - 2 hours, 4-6 cm - 1.5 hours, 6-8 cm - 1 hour, 8 cm and until the uterine os is fully opened - 1.2 hours.

3. Observation of the general condition of the woman in labor every 2 hours (coloration of the skin, headache, dizziness, temperature, Ps, blood pressure, urination control - if delayed for more than 3-4 hours - bladder emptying; if childbirth lasts more than 8-10 hours and the presenting part did not sink to the pelvic floor - a cleansing enema).

4. Perform external obstetric examination systematically and repeatedly, auscultate every 15-30 minutes, monitor the degree of fixation of the head.

5. With the passage of water, more vigilant observation, especially of the heart sounds of the fetus (every 5-10 minutes).

II period - the period of exile - the birth of a child. Duration in primiparous - 1-2 hours, in multiparous - from 10 minutes to 1 hour.

1. The vigilance of surveillance must be heightened.

2. Listen to the fetal heart sounds after each attempt in 1-2 minutes. Note not only the frequency, but also sonority (clear, deaf), correctness (smooth, arrhythmic).

III period - postpartum - separation of the placenta and discharge to the outside. Duration 15-60 minutes, 30 minutes on average.

1. Observation of the general condition, bleeding, as well as the size of the uterus and the level of standing of its bottom.

2. Careful examination of the placenta.

3. Manual separation of the placenta in case of bleeding exceeding the permissible degree of blood loss (0.5% of the weight), if there are no signs of separation of the placenta within 2 hours.

4. Inspection of the soft birth canal with the help of mirrors.

Diagnosis of a clinically narrow pelvis

I. At the end of pregnancy.

1. High standing of the bottom of the uterus (pendulous or pointed abdomen).

2. Balloting, head mobility, with the onset of labor.

3. Premature discharge of water.

II. With full opening of the pharynx.

one. Sign Genkel-Vasten obstetrician puts both hands paralLelno, one on the bosom, and the second presses the head to the promontorium. Comparing the height of both hands, the obstetrician can make a conclusion about the correspondence of the head and pelvis or lack thereof:

a) the palm lying on the head is lower than the palm, lecramping in the womb - "negative sign" - indicates the conformity of the size of the fetal head and the size of the pelvis of the woman in labor;

b) both palms are at the same level - "a sign ofvein" indicates that the correspondence is doubtful;

in) the palm resting on the head is higher than the palm, lepressing on the womb - a "positive sign" - indicates a discrepancy between the size of the fetal head and the size of the pelvis of the woman in labor.

2. The Zanggemeister maneuver - the obstetrician first measures the external conjugate with a tazomer, and then, without moving the posterior branch of the tazomer, puts the anterior one on the most prominent point of the headski. If the size of the Zanggemeister is larger than the outer conjugate, then there is a mismatch between the pelvis and the head.

Pudendal anesthesia technique

1. Lay the woman in labor on her back with her legs apart and bent at the hip and knee joints, the soles of both legs rest against the footrests of Rakhmanov's transverse bed.

2. Treat the external genital organs of a woman, the perineum and the area of the ischial tuberosities with an antiseptic solution.

3. A depression (fossa) is found with a finger in the middle between the ischial tubercle and the anus, and 1-1.5 ml of a 0.25% solution of novocaine is injected

directly into the skin of this area with a 2-gram syringe with a thin needle until a "lemon peel" is formed. Then, using a 10-20-gram syringe with a thin long needle (8-10 cm), the skin is punctured at the site of the "lemon peel" 5-6 cm deep into the tissues and 50 to 100 ml of 0.25% novocaine is injected. Each movement of the needle is preceded by the introduction of novocaine.

4. A solution of novocaine is injected into both ischio-rectal spaces.

Amniotomy technique

1. Lay a woman in labor on a gynecological chair or a “transverse” bed Rakhmanov A.N.

2. Treat the external genitalia with an antiseptic solution.

3. Do a bimanual study.

4. Under the control of the inner hand, insert any stabbing instrument (branches of bullet forceps, Kocher forceps, amniotic) and break the fetal bladder.

5. Pinch the hole in the fetal bladder with your finger and gradually release the anterior waters (danger of prolapse of the umbilical cord !!!).

6. Expand the opening in the fetal bladder (remove the membranes from the presenting part).

7. Remove the hand and treat the vagina with an antiseptic solution.

Episio- and perineotomy

1. Perform at the time of eruption of the presenting part.

2. Additionally, lubricate the skin of the perineum along the intended incision line with an antiseptic solution.

3. Insert the branch of the scissors between the presenting part and the wall of the vagina and turn the blade towards the perineum.

4. Make an incision of 2-3 cm (no more!):

a) in the case of episiotomy - laterally from the posterior commissure of the vagina in the direction of the ischial tuberosity;

b) in the case of perineotomy - from the posterior commissure along the midline posteriorly (danger of continuing with a rupture of the external sphincter and rectum!).

one.Prevention of premature extension of the head. When cutting the head, putting three fingers of the left hand on the head, delay the rapid advancement of the head and prevent premature extension, so that the eruption of the head takes place in a circle along a small oblique dimension.

2. Removal of the head outside the attempt.

As soon as the attempt ends, with the thumb and forefinger of the right hand above the head, carefully stretch the vulvar ring.

3. Reducing tension in the perineum.

To do this, the right hand is placed with the palm on the perineum so that four fingers fit snugly to the left, and the big one to the right of the labia. Pressing the ends of the fingers on the soft tissues, lower them down. In this regard, the stretching of the perineum decreases, blood circulation in it improves.

4. Regulation of attempts.

When teething, the head is offered to the woman to put her hands on her chest and breathe deeply. If necessary, the woman pushes with appropriate force.

5. Removal of hangers.

The head is taken with the palms of the hands and reduced to the birth of the front shoulder. After that, the head is pulled up so that the lower shoulder is born. The middle fingers of both hands lead under the armpits and bring out the torso.

Benefit according to N. A. Tsovyanov with clean glutealpresentations

1. The woman in labor is laid on her back with her legs bent at the hip and knee joints, the soles of both legs rest against the footrests of Rakhmanov's bed.
2. Perform a vaginal examination.
3. Perform pudendal anesthesia with a solution of novocaine 0.25%.
4. Cover the erupted buttocks in the direct size of the pelvic outlet with a sterile diaper (to reduce the slip of the fetus) and grab it with your hands so that the obstetrician's thumbs are located on the thighs of the fetus, and the remaining four fingers are on the sacral surface of the fetus.

5. The legs support from premature birth and direct the body of the fetus upward, along a path that is a continuation of the axis of the birth canal.

6. As the fetal torso is born, the doctor gradually moves his hands towards the genital slit of the woman in labor, pressing the outstretched legs to the stomach with his thumbs, and moves the rest of the fingers up the back - the torso passes into an oblique, and then into a straight size by the time the fetus is born to the lower blade angle.

7. To facilitate self-birth from under the pubic arch of the anterior handle, the buttocks are directed towards themselves and to the corresponding woman in labor (in position I - to the left, in position II - to the right) thigh.

8. For the birth of the rear handle, lift the fetus up (anteriorly).

9. For the birth of the head, the fetal body is directed downward until the border of the scalp appears, and then upward.

If the birth of the head is delayed, it is released by the Morisot-Levre-LaChapelle technique.

Classic manual breech presentation

Indication - difficulty in removing the shoulder girdle and head.

Stages - release of handles and release of the head.

1. Releasing handles:

a) the rear handle is released first from the side of the perineum with the doctor's hand of the same name: in position I - right; at the II position - left;

b) the second handle is also released at the perineum, for which the fetal body is rotated 180°.

Technique.

1. With a free hand, both legs are captured in the region of the lower third of the lower leg, taken upward (anteriorly) towards the opposite inguinal fold of the woman in labor.

2. With the index and middle fingers, the hands enter inward from the side of the back of the fetus, along the shoulder blade, along the shoulder, along the elbow

bend to the forearm, they are brought down, making, as it were, a “washing movement”.

3. With both hands, the torso of the fetus is grasped so that the thumbs are located on the shoulder blades on the sides of the spine, and the remaining fingers wrap around the chest. The body is rotated around the axis by 180° so that the back passes under the symphysis.

4. The second handle is released in the same way as the first.

II. Head release:

1. The hand that released the second handle is inserted into the vagina. The body of the fetus lies on the inner surface of the forearm of this hand, on the sides ("the fetus sits astride the forearm").

2. The nail phalanx of the index finger of this hand is inserted into the fetal mouth to flex the head and hold it in a bent position.

3. The palmar surface of the outer hand fits snugly to the fetus, the index and middle fingers are forked on the sides of the neck, and the ends of these fingers should not press on the collarbones.

4. The outer hand produces traction: the head at the entrance to the pelvis - downward attraction; the head in the cavity is horizontal; when the suboccipital fossa is shown under the lower edge of the symphysis, the attraction is produced upward.

5. At the same time, the assistant should protect the perineum or make an episiotomy before removing the head.

Conducting childbirth with foot presentation

1. Position on Rakhmanov's bed, as with a benefit for pure breech presentations.

2. Perform a vaginal examination to clarify the foot presentation.

3. Perform pudendal anesthesia Sol. Novocaini 0.25%.

4. The position of the obstetrician is sitting on a chair facing the woman in labor, to her right.

5. Cover with a sterile napkin the heel (or heels) of the fetus located in the

vulvar ring and the palm attached to the vulva, with each attempt to counteract the expulsion of the legs, preventing them from being born until the uterine os is fully opened.

6. Stop counteracting the born legs with a strong protrusion of the perineum with the buttocks pressing on it. The gaping of the anus with frequent and strong attempts, the high standing of the contraction ring (4-5 cm above the symphysis), the appearance of the legs of the fetus from under the edges of the palm, despite the opposition of the obstetrician's hands, indicates the full disclosure of the uterine os.

7. The duration of counteraction is from 20-30 minutes to 3-4 hours.

8. Further management of childbirth according to general rules.

9. A prerequisite is the systematic listening to the heartfetal vibrations - after each contraction - attempts.

Caesarean section according to Gusakov

1. General anesthesia.

2. Treatment of the operating field.

3. Opening of the abdominal cavity (skin, subcutaneous tissue, aponeurosis, muscles, peritoneum).

4. Opening of the vesicouterine fold and bringing down the blunt way of the bladder downwards and upwards.

5. Opening the lower segment of the uterus with a transverse incision.

6. Opening of the fetal bladder.

7. Removal of the head (pelvic end) of the fetus. Separation of the newborn from the mother and transfer to a neonatologist.

8. Extraction of the placenta by pulling the umbilical cord, curettage of the uterus. Closure of the wound on the uterus with a two-story catgut suture. Peritonization with sheets of the vesicouterine fold.

9. Toilet of the abdominal cavity, check of hemostasis, examination of the uterine appendages, counting napkins and instruments.

10.Layer-by-layer suturing of the abdominal wound in reverse order.

11. Urine excretion and aseptic dressing.

External signs of separation of the placenta

Leading the first act of the postpartum period strictly conservatively and observing the woman in labor, the doctor should be able to determine the moment when the placenta separated and descended.

1. The ovoid, as it were, “retro-shaped” shape of the uterus: some deviation to the side and an increase in the level of standing of the bottom of the uterus by 5-6 cm above the navel or almost to the costal arch indicates that the placenta has separated and descended into the lower part of the birth canal (symptom of sandy hours).

2. Schroeder's sign: the uterus becomes flatter, narrower, raised above the navel, a soft cushion is formed above the pubis- protrusion.

3. Kyustner's sign: when pressed with the edge of the brush over the bosom, the umbilical cord hanging from the genital slit is drawn into the vagina if the placenta is not separated; it remains motionless if the placenta has separated.

4. Strassmann's sign: tapping on the bottom of the uterus will be transmitted to the blood-filled umbilical vein. The fingers of one hand percussion along the bottom of the uterus, the fingers of the other hand feel a wave-like push above the umbilical ligature. This symptom is absent if the placenta has already separated from the uterine wall.

5. Alfred's sign: a braid applied to the umbilical cord near the outer parts, after separation of the placenta, moves away from the vulva by ten centimeters.

6. Klein's sign: they offer the woman in labor to strain: after straining stops, the umbilical cord remains in place if the placenta has separated; it goes inside if it hasn't already separated.

7. A sign of Mikulich - Radetsky: after the separation of the placenta, the woman in labor feels the urge to go down.

8. Chukalov's sign: when pressing with the edge of the brush on over in the pubic region, with the separated placenta, the uterus rises up, the umbilical

cord does not retract into the vagina, but, on the contrary, goes out even more.

9. Sign of Dovzhenko: the woman in labor is offered to breathe deeply: if the umbilical cord does not retract into the vagina during exhalation, the placenta has separated.

External methods of separated placenta

You can select the placenta with a separated placenta in the following ways:

1. Raise the head and upper body of the woman in labor, as if trying to seat her, and invite her to strain hard. This tension of the abdominal muscles is often enough to highlight the placenta.

2. Abduladze's method. After emptying the bladder, the anterior abdominal wall is grasped with both hands in a fold so that both rectus abdominis muscles are tightly grasped by the fingers. They offer the woman in labor to push. The separated afterbirth is easily born, due to the elimination of the divergence of the rectus abdominis muscles and a significant decrease in the volume of the abdominal cavity.

3. Genter's method. The doctor stands on the side of the woman in labor, facing her feet. Emptying the bladder, bringing the uterus to the midline. Hands, clenched into fists, are placed with the back surface of the main phalanges on the bottom of the uterus in the region of the tube angles obliquely. Actually squeezing: at first weakly, then gradually increasing, by pressing on the uterus in the downward and inward direction, while the afterbirth is slowly born from the genital slit. Throughout the entire manipulation, the woman in labor should not strain at all.

4. Crede-Lazarevich method. Emptying the bladder. The uterus deviated to the right is placed in the midline. Slow circular massage of the uterus with two or three fingers. The uterus is clasped with a hand so that the thumb lies on its front surface, the palm on the bottom of the uterus, four fingers on its back surface. Actually squeezing: the hand that captured the uterus squeezes it downwards and backwards, in the direction of the sacral cavity. The uterus serves as a piston that pushes out the placenta. During squeezing, the umbilical cord protrudes more and

more outward, the perineum protrudes, the genital slit moves apart and the placenta appears in it, leaving either the fetal surface - the central compartment according to Schultze, or the maternal - marginal according to Duncan. After the placenta, the shells come out, folded into a tourniquet, while the uterus is massaged.

Inspection of the placenta

1. Turn the afterbirth with the maternal side out.
2. Place it on any flat surface.
3. Examine the placenta (maternal part of the placenta) in order to identify a defect (absence of a lobule or part of it).
4. Make sure that the vessels do not depart from the edges of the placenta into membranes, which indicates the presence of an additional lobule.
5. Examine shells.
6. After making sure that the placenta is intact, weigh it and determine the size of the maternal part of the placenta by two parameters.
7. In the presence of an additional lobule of the placenta or its defect, as well as if a defect in the placenta or membranes is detected, it is necessary to perform a manual examination of the uterine cavity.
8. If necessary (prematurity and prematurity, antenatal fetal death, Rh-isoimmunization, late toxicosis, infected childbirth, malformations), the placenta should be sent for histopathological examination.

Manualseparation of the placenta

1. General anesthesia: oxygen-oxygen mixture or intravenous injection of 10 ml of sombrevin or calypsol.
2. Hand sanitizing with an antiseptic solution.
3. Sterile pads are placed on the anterior abdominal wall and under the pelvic end of the woman.
4. With the left hand, the obstetrician spreads the labia of the woman in labor, and inserts the right hand into the vagina, and then into the uterine cavity.
5. The left hand lies on the bottom of the uterus.
6. The hand located in the uterine cavity penetrates between the edge of the

placenta and the wall of the uterus outside the membranes and the placenta is separated by sawing movements. In this case, the outer hand presses on the bottom of the uterus.

7. With the left hand, pulling on the umbilical cord, the afterbirth is removed.

8. After the placenta is isolated, without removing the hand, the walls of the uterus are inspected to make sure that the placenta is completely removed.

Manual examination of the uterine cavity

1. Preparation for the operation: treatment of the surgeon's hands, treatment of the external genitalia and inner thighs with an antiseptic solution. Put sterile liners on the anterior abdominal wall and under the pelvic end of the woman.

2. Narcosis (nitrous-oxygen mixture or intravenous injection of sombrevin or calypsol).

3. The genital gap is bred with the left hand, the right hand is inserted into the vagina, and then into the uterus, the walls of the uterus are inspected; in the presence of remnants of the placenta - remove them.

4. With a hand inserted into the uterine cavity, the remains of the placenta are found and removed. The left hand is located at the bottom of the uterus.

Instrumental revision of the cavity of the postpartum uterus

A Sims speculum and a lift are inserted into the vagina. The vagina and cervix are treated with an antiseptic solution, the cervix is fixed by the front lip with bullet forceps. A blunt large (boom) curette makes an audit of the walls of the uterus: from the bottom of the uterus towards the lower segment. The removed material is sent for histological examination.

Massage of the uterus on the "fist" according to Ambodika

1. Preparation for surgery, anesthesia and insertion of the arm into uterine cavity (see "Manual examination of the uterine cavity").

2. The hand in the uterine cavity folds into a fist.

3. With the combined movements of the outer and inner hands, a light, jerky massage is performed for 3-5 minutes.

Revision of the cervix and perineum in puerperas

1. After treating the hands of the obstetrician and the external genital organs of the woman (see above), the cervix is exposed in the mirrors and fixed with two forceps or fenestrated forceps behind the front lip at a distance of 1.5-2 cm.

2. By shifting the instruments sequentially along the outer edge of the entire neck in a clockwise direction, they inspect.

3. If there are gaps, sutures are applied. The first seam is 0.5-1 cm higher from the beginning of the gap.

4. Revision of the walls of the vagina, vulva, perineum and restoration of integrity is performed after examination of the cervix.

Sewing up a rupture of the perineum III degree

1. After the treatment of the external genital organs and the hands of the obstetrician (see above), pudendal anesthesia is performed.

2. The beginning of the rupture of the rectum, the edges of the torn intestinal pulp are determined.

3. The rectum is sutured with a round needle with fine silk without piercing the mucosa.

4. The second floor of the seams - the muscle layer of the rectum is connected to the surrounding fiber with separate catgut threads.

5. The intestinal pulp is sutured with an eight-shaped catgut suture.

6. Catgut sutures are applied to the fascia and levators.

7. A continuous blanket catgut suture is applied to the vaginal mucosa.

8. The superficial muscles of the perineum are sutured with catgut sutures.

9. Knotted silk sutures are applied to the skin of the perineum. The line of seams is treated with an antiseptic solution.

Application of obstetrical forceps

A. Exit forceps. I. Preparation:

1. Laying a woman in labor on a "transverse" bed.

2. Processing the hands of the operator and assistant (the method is the fastest possible under these conditions).

3. Treatment of the surgical field (external genitalia, inner thighs, perineum) with an antiseptic solution.

4. Bladder catheterization.

5. Anesthesia (preferably - general anesthesia; pudendal anesthesia - with exit forceps).

6. Collecting tongs and stacking branches on the work table.

7. Internal examination with a "half-hand" or two fingers to clarify the state of the birth canal, presentation, type, position, position, swept suture and determine the level of the head.

II. Operation technique:

a) insertion and placement of forceps spoons. Four fingers of the right hand are inserted into the left half of the pelvis in the direction of the sacroiliac joint. With the left hand, the left spoon of tongs is taken by the handle in the form of a bow or with three fingers, its tip is set in the groove between the index and middle fingers, and the handle deviates to the opposite groin. Under the control of the hand inserted into the vagina, the thumb moves along the lower branch, without violence the spoon itself is placed on the head along its greatest curvature, and the parietal tubercle is captured. The handle of the left spoon is easily lowered. The spoon is passed to the assistant, who holds it in a given position. The right spoon is also introduced under the control of the left hand;

b) closure of forceps: the right spoon, when properly applied to the head, easily enters the lock of the left; Bush hooks at the same level, for cushioning, a diaper is laid between the branches;

c) control of the correct application of forceps: with two fingers of the right hand, it is checked whether the cervix is captured between the jaws of the forceps and the head. The left hand supports the tongs by the handles;

d) trial traction. The right hand is located on top of the forceps handle - the left is superimposed on the right, the middle finger touches the head. Light traction is produced. If this does not increase the distance between the head and the finger -

therefore, the forceps do not slip off - they are applied correctly. If the distance increases, the forceps are applied incorrectly;

e) actual traction. Hand position: 1) classic - the right hand grabs the handles in such a way that the index and middle fingers rest on the hooks. The left hand repeats the position of the right, or also grabs the handles of the tongs from below; 2) according to Tsovyanov - after the introduction of the spoons and the closing of the forceps, the second and third fingers of both hands, bent with a hook, capture the outer and upper surfaces of the instrument at the level of Bush's hooks. The main phalanges of the index fingers are located on the outer surface of the handles, moreover, Bush's hooks pass between the main phalanges of the index and middle fingers. The fourth and fifth fingers grasp the parallel forceps. The thumbs are under the handles of the tongs. Tractions are performed along the axis of the birth canal, taking into account the biomechanism of labor and the nature of the operation (abdominal or weekend). Tractions are made in the horizontal direction and upwards (in 2 positions). The amount of traction depends on the position of the head in the cavity or at the exit of the pelvis. Removing the head before the eruption of the parietal tubercles, spoons of forceps are removed according to the above method in reverse order.

B. Abdominal forceps: in contrast to the weekend forceps, they are applied to the head that has not completed the internal rotation, the sagittal suture is located in one of the oblique dimensions of the pelvic cavity.

The rules: the introduction of spoons, their location on the head and the direction of traction remain the same as for the output forceps.

Additional rules: "Three left", "three right".

1) If the drawn point is turned to the left, the forceps are superimposed in the left oblique size, the fixing spoon will be the left one.

2) If the wire point is facing to the right, the forceps are superimposed in the right oblique size, the fixing spoon will be the right one.

Since the forceps are not a rotating, but a drawing instrument, during traction, the head makes an internal turn, and the forceps follow the head. After turning the

head and establishingarrow-shaped seam in direct size - removing the head by the above method with exit forceps.

During the eruption of the parietal tubercles, an episiotomy is performed on one or both sides.

Principles of therapylactostasis

1. Anti-inflammatory therapy (sulfonamides for 7 days, broad-spectrum antibiotics with an increase in temperature) using dosed cold (hypothermia - 30 minutes, break - 30 minutes).
2. Immobilization of the mammary gland (for the duration of lactostasis).
3. Pumping (manual, breast pump) and vacuum decompression of the mammary gland.
4. Hormone therapy - a loading dose of estrogens (folicullin, sinestrol) or parlodel 2.5 mg 2 times a day.
5. Magnesium sulfate 30 g per os.
6. Pounded camphor 0.3 x 3 times a day per os.

Assessment of the condition of the newborn according to the APGAR scale and his respiratory function on a scale SILVERMAN - ANDERSEN

I.The following signs are visually determined:

1. Skin color (pink, cyanotic, pale, acrocyanosis).
2. Respiratory movements of the chest with the participation of auxiliary muscles:

a) movements in full without retraction of the intercostal spaces, the xiphoid process, without movement of the wings of the nose (accompanied by a loud cry), corresponds to an uncomplicated function of external respiration;

b) movement in a reduced volume with retraction of the intercostal spaces (accompanied by a weak cry), corresponds to moderate insufficiency of external respiration - more often due to partial atelectasis of the lungs;

c) movements with a pronounced retraction of the intercostal spaces with a simultaneous sharp retraction of the epigastric region and the xiphoid process on

inspiration (accompanied by a groan), corresponds to severe insufficiency of the function of external respiration - almost complete atelectasis of the lungs;

d) the same data as item "c" with the appearance of movements of the wings of the nose during inhalation and, especially during exhalation, correspond to an extremely severe insufficiency of the function of external respiration.

3. Activity of independent movements (in full, partial flexion of the limbs, absence).

II. The following signs are determined and specified by palpation:

1. Heart rate (more than 100 per 1 min; less than 100 per 1 min; absent).

2. Muscle tone (well expressed - independent movements of the newborn in full; sluggish - in the absence of independent movements; absent).

3. Sucking and swallowing reflexes during the suction of mucus from the oral cavity and upper respiratory tract (pronounced, reduced, absent).

IV. The calcaneal reflex is assessed visually by palpation (well expressed - movements of the limbs and a cry; weakly expressed - a grimace on the face without a motor reaction and an increase in muscle tone; absent).

V. Clinical assessment of the state of the newborn according to the Apgar scale:

signs	Score in points		
	0	one	2
Heartbeat (HR)	missing	less than 100 in 1 minute	over 100 in 1 minute
Breath	missing	faint cry	shout
Muscle tone	sluggish	some degree of flexion	active movements
Reflex excitability (calcaneal reflex)	missing	weak (grimace)	well expressed (shout)
Skin coloration	bluish, pale	pink body and	pink

		acrocyanosis	

The condition of the newborn is assessed: satisfactory: with a score of 7-10; moderate severity: with a score of 5-6; severe: with a score of 4 or less. The prognosis is considered favorable if after 5 minutes the score corresponds to a satisfactory condition; relatively favorable if the sum of points increases after 5 minutes, although it does not reach 7; doubtful if the total score remains the same and less than 7; unfavorable if the sum of points decreases (even with the initial sum of 7-10 points).

VI. Silverman-Andersen scale for diagnosing and assessing the severity of respiratory distress syndrome in newborns.

Evaluation by the sum of points:

"0" - no respiratory disorders;

"1-2" - mild syndrome of respiratory disorders;

"3-5" - moderate respiratory distress syndrome;

"10" - severe respiratory distress syndrome. An assessment using this scale is carried out in dynamics every 6 hours from the moment of birth for 1-2 days.

Stage 0 (points 0)	Stage 1 (points 1)	Stage 2 (points 2)
for each symptom		
Upper chest (when the child is in the supine position) and anterior abdominal the wall synchronously participates in the act of breathing No intercostal retraction on inspiration No retraction of the xiphoid process of the sternum on inspiration	Lack of synchrony or minimal descent of the upper chest when lifting the anterior abdominal wall on inspiration Slight retraction of the intercostal spaces on inspiration Slight retraction of the xiphoid process of the sternum on inspiration Chin down on inhale,	Marked retraction of the upper chest during inhalation of the anterior abdominal wall Noticeable retraction of the intercostal spaces on inspiration Noticeable retraction of the xiphoid process of the sternum on inspiration Chin down on inhale,

No movement of the chin when breathing No breath sounds	mouth closed Expiratory noises ("expiratory grunts") heard on chest auscultation	mouth open Expiratory noises when bringing a phonendoscope to the mouth or even without a phonendoscope

Evaluation using this scale is carried out in dynamics every 6 hours from the moment of birth for 1-2 days.

Primary toilet of the newborn

one.Suction of mucus:

a) immediately at birth, the head from the oral cavity and then from the nose with a rubber pear or a catheter with suction to prevent aspiration;

b) after the full birth of the child - from the oropharynx and nasopharynx with a catheter with suction;

c) repeatedly - if necessary (accumulation of mucus, hypoxia).

2. Placing the baby on a tray below the level of the placenta.

3. Wiping off excess primordial lubrication and blood with sterile cotton balls.

4. Prevention of gonoblenorrhea:

a) re-treatment of hands;

b) removal of grease from the eyelids with cotton balls;

c) retraction of the lower eyelid with the introduction of a sterile pipette, 1 drop of a 30% solution of sulfacyl sodium into each eye.

ATTENTION!!! Before instillation, check the bottle label: name - sodium sulfacyl (albucid), inscription - eye drops, concentration - 30%, shelf life - no more than 24 hours.

d) closing the eyelids and gently wiping from excess solution;

5. Treatment of the umbilical cord in two stages: the first - after the cessation of pulsation (if hemoconflict is suspected, with Rh-negative blood of the woman in

labor, the newborn is in a serious condition immediately after birth), the second - 5-15 minutes after separation from the mother.

First stage;

a) lubrication of the umbilical cord with 5% iodine solution, retreating 8-15 cm from the umbilical ring;

b) the imposition of two Kocher clamps in the middle of the lubricated area of the umbilical cord at a distance of 2-3 cm from the other;

c) cutting the umbilical cord with sterile scissors between the clamps;

d) transferring the child to the changing table, on which there is an individual set of heated linen. The table should be heated with dry radiant heat (sollux).

Second phase:

a) washing hands, changing gloves;

b) lubrication of the umbilical cord from the umbilical ring with 96 ° ethyl alcohol (5% iodine solution) before clamping;

c) wiping and squeezing the umbilical cord near the umbilical ring for 3-5 cm;

d) application to the umbilical cord, at a distance of 0.3-0.5 cm from the edge of the Kocher clamp or Rogovin staple, or silk ligature (depending on the method adopted in the institution);

e) cutting off the umbilical cord, departing 1.5 cm from the clamp, staples or ligature;

e) squeezing the jelly of the remainder of the umbilical cord with a dry ball;

g) lubrication of the cut with 5% iodine solution;

h) applying a bandage with a triangular cloth moistened with 96 ° ethyl alcohol.

III. Anthropometry:

1. Weighing on a tray scale in a sterile diaper (adjusted for the mass of diapers and clamps).

2. Measurement with oilcloth or paper tape with tear marks, followed by comparison with the centimeter scale on the changing table or sterile oilcloth centimeter tape:

a) growth - from the occipital to the calcaneal tubercles with an elongated leg;

b) head circumference - through the line of the superciliary arches and a small fontanel;

c) the circumference of the chest - through the line of the nipples of the mammary glands and the armpits.

IV. Filling oilcloth sterile bracelets (three):

1. Newborn crib number.
2. Surname, name, patronymic of the mother (in full).
3. Birth history number.
4. Date and hour of birth.
5. Gender of the newborn.
6. Newborn weight.
7. Newborn growth.

V. Verification of data with the mother.

VI. Fixation of bracelets with sterile gauze ribbons to both handles of the newborn and the mother's hand at the wrist joints.

VII. Showing the newborn to the mother.

VIII. Swaddling and laying on a changing table for observation in the delivery room for up to 2 hours from birth (in recent years, no more than an hour is recommended, and in case of poor condition, transfer to an intensive post in the neonatal unit immediately after resuscitation