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Pregnancy and labor in case of breech presentation. Pregnancy and delivery in case of abnormalities of the pelvis structure.

Tutorial for practical lessons of obstetrics

for students of the 5th course of medical

faculty

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Anomalies of the Bony Pelvis

In an anatomically contracted pelvis all or one of main dimensions is reduced by at least 1.5–2 cm. this is an anatomical notion.

Contracted pelvis classification is conducted by the form and the degree of contraction.

The main index of pelvic contraction is considered to be the dimension of the true conjugate: if it is less than 11 cm, the pelvis is considered contracted.

Reasons for contracted pelvis formation

There are a lot of reasons for contracted pelvis development: insufficient nourishment in childhood, rachitis, infantile cerebral paralysis, poliomyelitis, etc. Pelvic deformities are caused by illnesses or injuries of pelvic bones and joints.

Pelvic anomalies also result from spine deformities, illnesses and deformations of the lower extremities (hip joints pathology, atrophy or absence of a leg, etc.).

In the pubertal period the pelvis is formed under the influence of estrogens and androgens. Estrogens have a stimulating influence on pelvic growth in transversal direction and its maturing (ossification), and androgens – on the growth of the spine and pelvis lengthwise. Acceleration is one of the factors of transversely contractedpelvis formation since it leads to the elongation of the body in the pubertal period when the increase of transversal dimensions is decelerated.

Considerable psychoemotional loads, stress situations, taking hormonal preparations in order to block menstruation at intensive physical activity in many girls causes ―compensatory hyperfunctioning of the organism‖, which ultimately promotes the formation of transversely contracted pelvis.

In modern conditions the number of women with anatomically contracted pelvis is becoming lower, the pelvis with reduced transversal dimensions is met more often. The spread of the pelvis with reduced dimensions of the broad part of the small pelvic cavity is ranked second. Presently there is noted the increase of the percentage of the so-called worn down forms of contracted pelvis, which are very difficult to diagnose.

Classification

There is no single classification of the forms of anatomically contracted pelvis. Classification is built either on the etiological principle, or on the basis of the evaluation of anatomically contracted pelvis by the form and contraction degree.

Besides, there are differentiated forms of contracted pelvis of rare and frequent occurrence.

Pelvic forms of frequent occurrence

1. Pelvis justo minor (Generally contracted pelvis).

2. Transversely contracted pelvis.

3. Flat pelvis: - simple flat; - flat rachitic.

4. Generally contracted flat pelvis

Pelvic forms of rare frequency:

1. Obliquely oval contracted pelvis.

2. Choanoid pelvis.

3. Kyphotic pelvis.

4. Spondylolisthetic pelvis

5. Osteomalacic pelvis

6. Pelvis contracted by tumors and exostoses

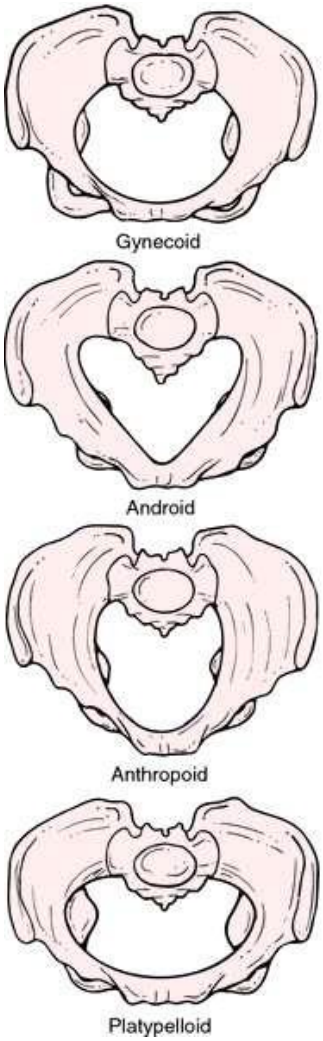
The Caldwell–Moloy's classification (1933) is widely used abroad, it takes into consideration the peculiarities of pelvis structure:

1) gynecoid (a feminine type of pelvis);

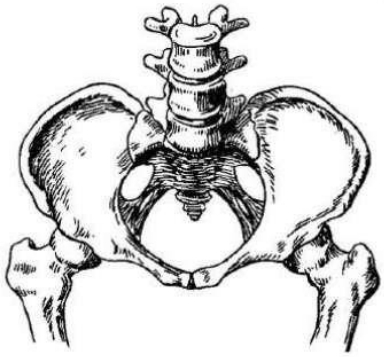
2) android (a male type of pelvis);

3) anthropoid (characteristic of primates);

4) platypeloid (flat).



Generally contracted pelvis

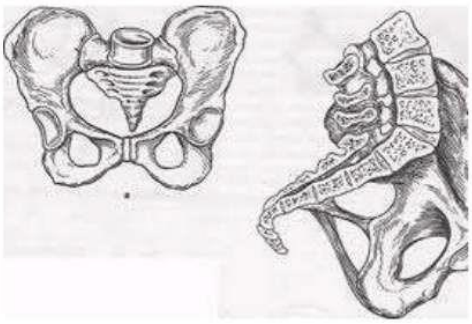


Transversely contracted pelvis

Pelvis due to osteomalatia

Scoliotic pelvis

Rachitic flat pelvis



Except for the indicated - pure‖ pelvic forms, there are differentiated 14 varieties of - mixed‖ forms. This classification reflects dimensions of the posterior and anterior pelvic segments, which play an important role in delivery mechanism. The plane, which goes through the biggest transversal diameter of pelvic inlet and posterior margin of the ischial spines, divides the pelvis into the posterior and anterior segments. For different pelvic forms dimensions and forms of these segments are different. Thus, at gynecoid form the posterior segment is larger than the anterior one, its contours are rounded, the from of pelvic inlet is transverse-oval. If the pelvis is anthropoid, the anterior segment is narrow, long, rounded, and the posterior one is long, but not so narrow, the form of the inlet – longitudinal-oval. At android form of pelvis the anterior segment is also narrowed, and the posterior one – wide and flat; the form resembles a heart. At platypeloid form of pelvis both anterior and posterior segments are wide and flat. The form of the inlet is elongated, transverse-oval.

In the classification of anatomically contracted pelvic forms of great importance are not only peculiarities of structure, but also the degree of pelvic contraction, which is based on the dimensions of the true conjugate.

By the contraction degree there are differentiated the following pelvic forms:

I – the true conjugate is smaller then 11, larger than 9 cm.

II – the true conjugate is smaller then 9, larger than 7 cm.

III – the true conjugate is smaller then 7, larger than 5 cm.

IV – the true conjugate makes 5 cm and less

Delivery through the maternal passages at the III and IV contraction degrees are impossible.

The modern guide Williams Obstetrics (1997) gives the following classification of contracted pelvises:

1. Contracted pelvic inlet.

2. Contracted pelvic cavity.

3. Contracted pelvic outlet.

4. General pelvic contraction (combination of all contractions).

The authors view the pelvic inlet as contracted if the direct dimension is less than10 cm, transversal – less than 12 cm, and diagonal conjugate is less than 11.5 cm. The condition, at which the pelvic cavity (the narrow part) at interaxial dimension is less than 10 cm is viewed as a suspicion of contracted pelvis, and less than 8 cm – as contracted pelvis. Contraction of the narrow plane may be detected by means of pelvimetry only. Outlet contraction is determined if the dimension between the ischial tuberosities is less than 8 cm. inlet contraction is rarely met without cavity contraction.

If the external conjugate is 18 cm and less, the pelvis is considered anatomically contracted.

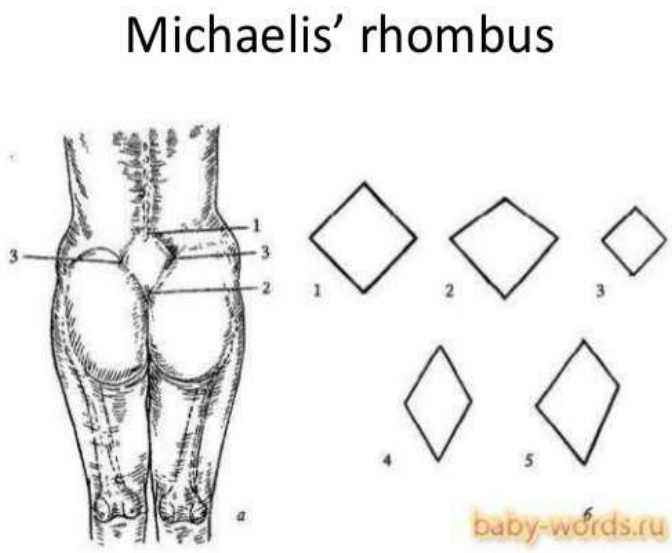
To decide the question about the clinical correspondence of the pelvis to fetal dimensions and possibility of delivery through the natural maternal passages additional measurements are conducted:

1) abdominal circumference;

2) pelvic circumference;

3) wrist joint circumference (detecting the Solovyov's index);

4) form and dimensions of the Michaelis' rhomb



5) symphysis height;

6) two dimensions of the pelvic outlet;

7) lateral conjugates;

8) diagonal conjugate;

9) oblique dimensions of the large pelvis;

10) true conjugate;

11) fetal dimensions (height, weight, direct dimension of the head).

The result of delivery is influenced by the pelvic dimensions, fetal length and weight, character of head fitting, overriding, asynclitism, character of birth activity, time of amniotic fluid discharge.

Women with contracted pelvis are to be hospitalized in two weeks before delivery.

Peculiarities of the Biomechanism of delivery at generally contracted pelvis

Pelvis justo minor is a pelvis, all the dimensions of which are reduced by the same quantity of centimeters. For example: normal pelvis – 25–28–31–20, pelvis justo minor (PJM) – 22–25–28–17.

At this type of pelvis the hollow of the sacrum is evident, the pelvic inlet is oval, the promontory is reachable, the pubic arch is reduced.

Such type of pelvis is observed in women of low stature, regular organization of the body.

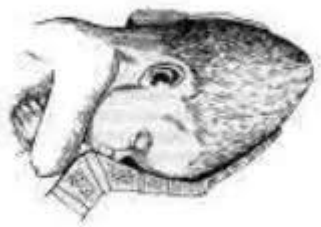
Diagnostics is based on the data of external pelvimetry and vaginal examination.

Delivery biomechanism is close to the delivery biomechanism at normal pelvic dimensions. Before the beginning of delivery the fetal head is in somewhat flexed condition over the pelvic inlet – with its sagittal suture over the transversal or one of the oblique dimensions. The fixed in the inlet head because of the pressure exerted on it by the uterus begins flexion necessary to get into, and later going through the area of brim. Therefore the delivery biomechanism at pelvis justo minor has the following peculiarities: during the first moment there takes place the maximal head flexion by the pelvic inlet; the occipital fontanel is on the axis of pelvis .

When the head goes to the third parallel pelvic plane, it is in evidently flexed position; the sagittal suture is in oblique, and sometimes almost direct dimension of the third parallel pelvic plane. Here the fetal head comes across an obstacle of the pelvic part of least dimensions. This obstacle is overcome due to further flexion of the head, which happens at passing from the broad to the narrow part of the pelvis. Flexion becomes maximal. The occipital fontanel takes the central position in the pelvic cavity – is on the axis of pelvis. Due to such flexion the head passes through the narrowest part of pelvis with its least circumference, which goes through the small oblique dimension. The maximal head flexion at passing from the broad to the narrow part of the small pelvis is the second peculiarity of delivery mechanism at pelvis justo minor. Inadequacy between the head and pelvis is compensated by the sharp configuration of the head – it elongates, to the side of the occipital fontanel; thus the dolichocephalous form of the head is formed.

The sharp dolichocephalous configuration of the head is the third peculiarity of delivery mechanism at pelvis justo minor.

Generally contracted pelvis



- Dolichocephalic form of fetal head

During the third moment after the fixation of the fetal head with the occipital fossa extension takes place lower because of the narrowness of the pubic angle; the fourth moment of delivery happens without peculiarities.

Passing of the head at narrow pelvis because of maximal flexion and dolichocephalous configuration requires more time than at normal pelvis. Therefore delivery at pelvis justo minor are prolonged. This explains the formation of a big labor tumor in the area of the occipital fontanel, which elongates the already oblong dolichocephalous fetal head.

Peculiarities of Delivery Biomechanism at Dollichopellic Pelvis

Dollichopellic pelvis is characterised by the reduction of transversal pelvic dimensions by 0.5–1 cm and more at increased dimension of the true conjugate and the narrow part of the small pelvic cavity. The pelvic inlet is round or longitudinaloval. The reduction of the transversal dimension of the Michaelis' rhomb (less than 10.5 cm) is of diagnostic importance. Peculiarities of the dollichopellic pelvis structure include small opening of the wings of ilium and narrow pubic arch. This pelvis reminds a male pelvis and is often observed in women at hyperandrogenism. Vaginal examination shows approach of the iliac spines, a sharp pubic angle.

Proceeding from the transversal diameter of the inlet there are differentiated three degrees of dollichopellic pelvis contraction:

- I – 12–11.5 cm;

- II – 11.4–10.5 cm;

- III – less than 10.5 cm.

Accurate diagnostics of this form of pelvis and especially of the degree of its contraction is only possible at the usage of radiopelvimetry, computer diagnostics, magnetic resonance imaging.

Dollichopellic pelvis without any increase of the direct dimension of the inlet is characteristic of asynclitic fitting of the head – it fits in one of the oblique dimensions of the area of brim with the anterior parietal bone, the sagittal suture dislocates backwards.

The flexed head gradually descends into the pelvic cavity and further performs the same movements as at normal delivery mechanism: internal turning, extension, external turning.

If the reduction of transversal pelvic dimensions is combined with the increase of the true conjugate, there not infrequently arises straight elevation of the head.

If the head is small, the occiput is directed to the symphysis, uterine contractions are active, the head flexes strongly, passes in flexed condition (the sagittal suture is in the direct dimension) through all the pelvic planes and is born as at the anterior type of vertex presentation. If the occiput is directed backwards, the turning of the flexed head by 180º is possible only in the pelvic cavity (only at a small head and energetic birth activity), and the head comes out in the posterior or anterior type. At straight elevation of the head (especially at the posterior type) there arise complications, which are indications to cesarean section.

Peculiarities of Delivery Biomechanism at Flat Pelvis

Simple flat pelvis is a pelvis, in which all direct dimensions are reduced. It is formed due to sacral bone displacement to the womb.

There are differentiated three varieties of the flat pelvis:

- simple flat pelvis;

- flat rachitic pelvis;

- pelvis with reduced direct dimension of the broad part.

For example:

normal pelvis – 25–28–31–20,

simple flat – 25–28–31–18,

flat rachitic pelvis – 26–26–31–17.

Flat rachitic pelvis is a pelvis deformed because of rickets.

Flat rachitic pelvis is characterized by the following peculiarities:

- the direct dimension of the pelvic inlet is considerably shortened as a result of deep impression of the sacrum into the pelvis – the promontory projects into the pelvic cavity much more than in the normal pelvis;

- sometimes another ―false‖ promontory is observed;

- the sacrum is smoothed and turned back around the axis, which goes in the transversal direction of the lumbosacral plexus;

- the tip of the sacrum comes off the inferior margin of the plexus farther than in the normal pelvis;

- the coccygeal bone is often pulled by the ischiosacral ligaments together with the last sacral vertebra forward (curved forward in hook-like manner).

The from of the iliac bone: undeveloped, flat wings; unfolded crests because of significant wedging of the sacrum into the pelvis. The difference between the distantia spinarum and distantia cristarum is either less in comparison with the normal pelvis, or they are equal, or at evident changes of pelvis structure the distance between external spines is bigger than between the crests. The pubic arch is flatter than in the normal pelvis. The axis of pelvis is not a regular arch, as in the normal pelvis, but a broken line. The large and small pelvises are deformed, especially shortened is the direct dimension of the inlet at its normal transversal dimension; due to the promontory, which

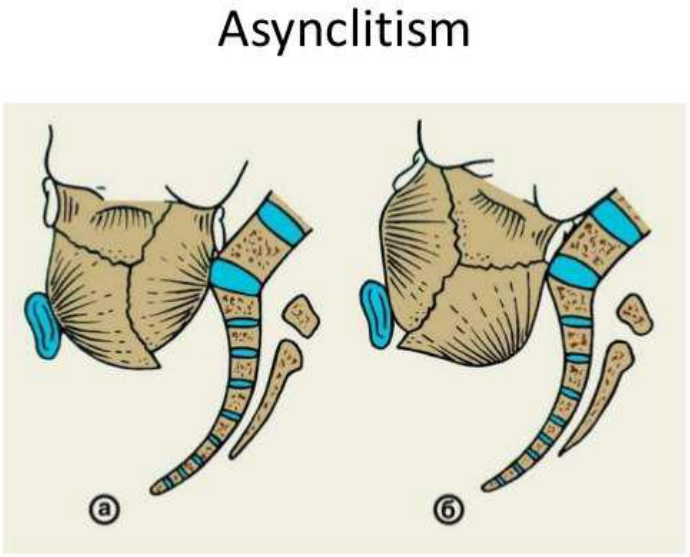
protrudes considerably into the pelvic cavity, the area of brim has a thread-like form; all the other anteroposterior dimensions of the pelvic cavity are normal or increased; dimensions of the pelvic outlet are larger than usual; in certain cases the direct dimension of the outlet is shortened because of sharp protrusion at a right angle of the coccygeal bone together with the last sacral vertebra.

During the diagnostics of such pelvis one must pay attention to the signs of rachitis the woman had in childhood, reduction of the vertical dimension of the sacral rhomb and the change of its form. At vaginal examination the promontory is reached, the sacral bone is flattened, reclinated, sometimes a ―false‖ promontory is detected, the direct dimension of the outlet is increased.

The first peculiarity of delivery biomechanism is the fitting of the head with the sagittal suture in the transversal dimension of the pelvic inlet and lengthy standing in the place.

The second peculiarity is insignificant extension of the head by the pelvic inlet; the prefontanel is located at the same level with the occipital fontanel or lower. At such extension through the least dimension – the true conjugate – the head passes with the small transversal dimension (8.5 cm). The large transversal dimension (9.5 cm) deviates to the side, where there is more space. The head in such condition adjusts to the pelvic inlet also because the dimension of the somewhat extended head (12 cm) is less than the transversal dimension of the outlet (13–13.5 cm).

The third peculiarity is lateral inclination of the head (asynclitic fitting). There are differentiated anterior (Nehelev's) and posterior (Litsman's; unfavourable) types of asynclitism



The anterior asynclitism is formed when the posterior parietal bone is fixed by the protruding promontory, and the anterior parietal bone is gradually descending into the pelvic cavity. The sagittal suture is located closer to the promontory. In such position (the sagittal suture in the transversal dimension of the pelvis – closer to the promontory, the prefontanel is lower than the occipital fontanel) the fetal head stands in the pelvic inlet till there takes place its sufficiently strong configuration. After this the posterior parietal bone gets off the promontory, asynclitism disappears, the head flexes. Further on delivery mechanism is the same as at the anterior type of vertex presentation.

The posterior – Litsman's – asynclitism is postparietal fitting of the head. It is characterized by the deeper fitting of the postparietal bone.

Sometimes impression is observed on the newborn's head caused by long-term adjoining to the promontory.

All direct dimensions are contracted in the simple flat pelvis. It is characterised by the deeper impression of the sacrum into the pelvis without any change of the from and curvature of the sacrum; as a result the sacral bone is closer than usually to the anterior pelvic wall and all the direct dimensions of the pelvic inlet, cavity, and oulet are moderately shortened. Curvature of the sacrum is average, the pubic arch is wide, the transversal dimension of the inlet is usually increased. Women with simple flat pelvis have regular organization of the body. External examination shows normal transversal pelvic dimensions and decreased external conjugate. Internal examination shows a decrease of the diagonal conjugate.

Delivery biomechanism at simple flat pelvis is characterized by the absence of internal turning of the fetal head. The fetal head reaches the third parallel pelvic plane, and sometimes the pelvic floor, and the sagittal suture is in the transversal pelvic dimension – there arises low transversal standing of the head. In some cases the fetal head on the pelvic floor turns with the occiput ahead and is born independently. If the turning has not taken place, there appear complications (secondary uterine inertia, fetal asphyxia, etc.), which are indications to operative delivery. Sometimes there arises oblique asynclitic fitting of the head. Delivery at posterior occipital presentation promote the development of clinical inadequacy of the mother's pelvis and fetal head.

Pelvis with reduced direct dimension of the broad part of the small pelvis is characterised by sacrum flattening, its length increase, reduction of the firect dimension of the broad part of the cavity (less than 12 cm), absence of difference between the direct dimensions of the inlet, broad and narrow parts of the cavity. Other dimensions are usually normal or increased/ there are two degrees of contraction: the 1st degree – the direct dimension of the broad part of the pelvic cavity makes 12.4–11.5 and the 2nd degree – pelvic dimension is less than 11.5 cm. For the diagnostics of this pelvic form the measurement of the pubosacral dimension (the distance between the middle of the symphysis to the place of the 2nd and 3rd sacral vertebrae joint) is informative. For the anatomically normal pelvis the pubosacral dimension makes 21.8 cm. the dimension less than 20.5 testifies to contracted pelvis, and less than 19.3 – allows suspecting evident decrease of the direct diameter of the broad part of the pelvic cavity. The discovered correlation between the pubosacral dimension and the size of the external conjugate.

At anatomically contracted pelvis delivery may be:

- normal;

- complicated, but with favourable outcome if correct aid is rendered;

- very difficult, with complications dangerous for the parturient woman and fetus.

At the 1st degree of contraction and average fetal dimensions delivery is managed in expectation, thoroughly observing its dynamics, condition of the parturient woman and fetus. At the 2nd and 3rd degrees of contraction scheduled cesarean section is indicated, and at a dead fetus – an embryotomy. At the 4th degree of pelvic contraction, irrespective of fetal condition, cesarean section is conducted.

Clinically contracted pelvis is all cases of functional inadequacy between the fetal head and mother's pelvis irrespective of their dimensions. This is a clinical notion and is detected in the course of delivery at good birth activity.

In literature one can meet the terms - pelvic disproportion‖, - pelvic dystonia‖, - cephalopelvic disproportion‖.

Risk factors of clinically contracted pelvis appearance:

- anatomically contracted pelvis;

- large fetus;

- extension presentation of the fetal head;

- protracted pregnancy;

- fetal hydrocephaly;

- fetal tumors and malformations;

- tumors and malformations of the mother's pelvis;

- tumors of pelvic organs.

Conditions of diagnosing the clinically contracted pelvis:

- cervical dilation by more than 8 cm;

- fetal sac absence;

- evacuated urinary bladder;

- normal uterine activity.

Diagnostic signs of clinically contracted pelvis:

1) no advance of the head at sufficient cervical dilation and normal birth activity;

2) level or positive Wasten's symptom (the Tsengeymeyster's dimension is bigger than the external conjugate);

3) insufficient abutment of the uterine neck to the presenting fetal head;

4) high location of the contraction ring;

5) symptoms of urinary bladder pressing;

6) contractions appearance at high location of the fetal head;

7) uterine neck edema with possible spread to the vagina and external genitals.

Threat of uterine rupture

If there are two or more signs, clinically contracted pelvis is diagnosed.

Obstetric Approach

Diagnosis of clinically contracted pelvis is an indication to immediate delivery by means of cesarean section. If the fetus dies, embryotomy is conducted.

Obstetric forceps and vacuum extraction of the fetus at clinically contracted pelvis are contraindicated.

Labor management at contracted pelvis

At pelvic contraction of the 1^{st}–2^{nd} degree delivery may be: a) normal; b) complicated, but with favourable outcome at adequate help; c) very difficult with complications for the woman and fetus.

The course of delivery at contracted pelvis depends on the following factors:

- the degree of pelvic contraction;

- fetal head dimensions;

- the character of presentation and head fitting;

- capability of the head to configuration;

- readiness of the woman's organism to delivery;

- fetal condition.

At favourable combination of indicated conditions delivery is taking its normal course, especially at the 1^{st} degree of pelvic contraction.

In the absence of these conditions cesarean section is more expedient; it is conducted at the end of pregnancy or in the beginning of birth activity. Indications to the section are conditions, at which uterine inertia is possible, or peculiarities of fetal head fitting, which prevent its passing through the pelvic ring: 1) big fetal dimensions; 2) prolonged pregnancy; 3) chronic fetal hypoxia;

4) breech presentation; 5) genitals malformations; 6) a scar on the uterus after cesarean section and other surgeries on the uterus; 7) sterility in anamnesis; etc.

In pregnant women with the 1^{st}–2^{nd} degree of pelvic contraction delivery management is begun through the natural maternal passages with subsequent functional evaluation of the pelvis. It is possible to detect if the anatomically contracted pelvis is narrow or normal functionally only in the course of delivery.

Observation over the urinary bladder condition is very important. Its overfilling and impossibility of independent urinary excretion do not always depend only on mechanical compressing of the urinary canal between the fetal head and symphysis pubis. Quite often this is explained by the violation of urinary bladder innervation, which often accompanies the condition of the lower uterine segment. Combinations of these reasons are possible. The overfilled urinary bladder must be evacuated – this stimulates birth activity, promotes passing of the head through the parturient canal and prevents, to some extent, fistulas formation. Urinary retention may be one of the signs indicating the necessity of conducting cesarean section.

The state of delivery power. During delivery one thoroughly observes the character of birth activity: the strength and frequency of contractions. If there arises powerless labor or discoordinated labor, the question of cesarean section is decided.

Fetal condition and dimensions. External and internal investigations define fetal position, location of parts of body, dimensions, head size, density of its bones, the character of the fitting of the presenting part into the pelvis, condition of fetal heartbeats.

The state of the maternal passages. The state of the hard part of the maternal passages is detected by means of external examination, general and additional pelvic measurements, vaginal investigation of the parturient canal walls.

The state of soft maternal passages is of great importance and requires thorough examination in the course of delivery at contracted pelvis.

Beginning of the jamming of the soft tissues of the parturient canal may be indicated by overfilling of the urinary bladder, which arises at long-term standing of the fetal head in one and the same plane; genitals edema, the uterus in the first place.

If an edema of the lip of ostium of uterus is detected, it is tucked behind the fetal head.

Considerable edema of external genitals, bloody discharge from the vagina, urine with blood, thinning and painfullness of the lower segment of uterus, and fetal hypoxia indicate evident jamming of tissues. In such cases urgent delivery is necessary, though it does not always prevent the development of fistulas, fissures, and ruptures of the uterus.

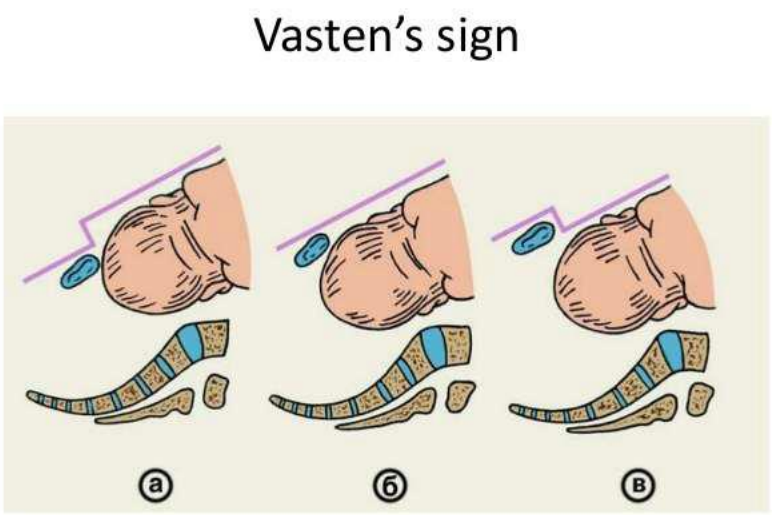
Condition of the uterus requires special attention, especially its lower segment, location of the contraction ring.

Painfullness or significant thinning of the lower segment, high and oblique location of the contraction ring, painfullness and tension of the round ligaments of uterus testify to the superdistension of the lower uterine segment. In such situation birth activity must be stopped, and operative delivery is to be conducted.

Genital tracts infection is a frequent complication of labor at contracted pelvis. Appearance of the first signs of infection requires administration of antibacterial therapy. Correspondence of the fetal head dimensions to the dimensions of the mother’s pelvis. The Tsengeymeystyer’s and Wasten’s signs allow assessing this correspondence.

Tsengeymeystyer offered to detect the presence and degree of elevation of the anterior surface of the fetal head over the symphysis by means of measuring and comparing dimensions of the external conjugate and the distance from the supersacral fossa to the anterior surface of the head. The measurement is conducted with a pelvimeter, the pregnant woman in lateral position. At correspondence of the dimensions of the fetal head and pelvis the external conjugate is by 2–3 cm bigger than the distance from the head to the supersacral fossa. If the latter is bigger than the external conjugate, this testifies to head inadequacy to pelvic dimensions. Identical value of both dimensions testifies to the presence of some discordance of the dimensions of the pelvis and fetal head; in this case labor prognosis is doubtful.

Wasten's sign



Wasten's sign is detected if there is birth activity, after amniotic fluid discharge and head fixation in the pelvic inlet. The obstetrician places his hand on the surface of the symphysis and slides with it upwards, to the region of the presenting head. If the anterior surface of the head is above the symphysis plane, this testifies to discordance between the pelvis and head (positive Wasten's sign) and delivery can not be completed without assistance.

At insignificant discordance the anterior surface of the head is on the same level with the symphysis (level Wasten's sign). In this case delivery may be completed without assistance at good birth activity and small head dimensions and its configuration, or in operative way – at weak birth activity, big head, anomalies of position and fitting of the fetal head.

At complete correspondence of the head and pelvis the anterior surface of the head is below the symphysis plane (negative Wasten's sign), delivery is usually completed without assistance.

Malpositions

Malpositions include such positions of the fetus, at which its longitudinal axis does not coincide with the longitudinal axis of the uterus – these are transverse and oblique lies.

Transverse lie is a fetal position, in which the fetal axis forms a right angle with the longitudinal axis of the uterus.

In oblique lie the fetal axis and the axis of the uterus cross at an acute angle. In malposition there are differentiated two positions – the first and the second. There is no presenting part. In the first position the fetal head is turned to the left, in the second – to the right.

Malposition diagnostics is defined by means of Leopold's maneuvers, internal examination, and ultrasonography.

External examination finds: the form of the uterus is stretched in transverse or oblique direction, the head and pelvic pole are located in the lateral parts of the uterus, there is no presenting part above the brim.

Fetal heartbeats are auscultated at the level of the navel.

Internal examination may be different depending on gestation sac integrity. If the gestation sac is intact, the whole small pelvis is free, as there is no presenting part above the brim. If waters have discharged, fetal ribs, clavicles, scapulae, spine or abdomen may be palpated. Sometimes a fetal arm slips to the vagina.

Usually the course of pregnancy at malposition is normal.

In Ukraine there has been worked out the management of preventive conservative correction of malposition with the help of a complex of gymnastic exercises (Shuleshova–Hryshchenko's complex). The exercises are done in the antenatal clinic, under doctor's or experienced obstetrician's supervision. The method is based on the following: fetal mobility increases when the body of the pregnant woman takes different positions, and at a certain stage of exercises the fetus may take the correct position – longitudinal.

Another possibility to correct malposition is preventive external fetal turning. If there are necessary conditions, the turning is performed after the term of 35–36 weeks of pregnancy if there are no contraindications to this operation. Contraindications to external turning: a scar on the uterus, late gestoses, multifetation, hydramnion, oligohydramnios, placental presentation, diabetes mellitus, essential hypertension, abortion threat, etc.

The operation is performed in the obstetric department by an experienced doctor. There are two variants of external preventive turning: a) at transverse lie – onto the head; b) at oblique lie – onto the part, which is closer to the brim. Complications of the prophylactic turning: premature detachment of placenta, tightening of the umbilical cord, fetal hypoxia, preterm delivery.

At unsuccessful external turning or the presence of contraindications to it the pregnant with transverse fetal lie must be under fixed medical supervision until the end of pregnancy.

Hospitalization to the department of pathologies of pregnant is conducted in the term of 36–37 weeks.

The Course of Delivery at Malposition

Malposition makes delivery through the natural passages impossible. In emergency cases a premature dead fetus may be born by the method of self-turning or folding in two.

During delivery at malposition there arises threat not only to the life of the fetus, but also to the life of the mother. If fetal position is not changed, metrorrhexis takes place, which causes death of the fetus and in 60–70 % cases – of the mother. All this forces to treat the choice of delivery method extremely responsibly at malpositions.

Neglected and not neglected transverse lie is an important clinical notion. Transverse lie is not neglected when the fetal sac is intact or when the waters have just discharged and the fetus is movable.

Neglected transverse lie begins developing from the moment of amniotic fluid discharge as the fetal shoulder and adjacent parts of the body are descending into the pelvis. An arm of the fetus may fall out.

It should be emphasized that after amniotic fluid discharge the uterus squeezes the fetus with the walls, and a very complicated obstetric situation arises. In this connection there exist the following variants of delivery.

At the present stage a scheduled cesarean section is recommended at malposition on the 38^{th}–39^{th} week of pregnancy.

In some cases, in the absence of supervision or untimely diagnosis of malposition, the pregnant woman has to give birth in more complicated obstetric situations. If amniotic fluid discharged more than 8–10 h ago, cesarean section is to be conducted with taking protective measures. If the set of neglected transverse lie symptoms has appeared and the fetus has died, embryotomy is indicated, decapitation in particular. Only in cases when sufficient cervical dilation and amniotic fluid integrity coincide there may performed the operation of classical combined version of the fetus onto the leg. Most often such situation is observed at multifetation for the second fetus.

The operation of classical combined version of the fetus onto the leg is very complicated and therefore, taking into account the tendencies of modern obstetrics, is conducted very rarely.

Conditions for the operation of classical combined version:

1. Sufficient cervical dilation.

2. Intact fetal sac or amniotic fluid, which has just discharged.

3. Normal pelvic dimensions.

4. Medium-sized alive fetus.

An absolute contraindication to combined version is fetal immobility (neglected transverse lie).

To conduct operation one must perfectly know the type and position of the fetus. Both hands of the obstetrician are taking part in the operation.

Combined version technique:

The first moment – obstetrician hand's introduction. A hand (usually right) is introduced into the uterine cavity through the vagina, the fetal sac is burst, the other hand is on the fundus of uterus.

The second moment – looking for the fetal leg. To reach the leg the hand of the internal arm either moves along the fetal body to the place where its leg should be (the short way) or slides along the side of the fetus to the buttocks, from which it is transferred to the hip, and then to the shin (the long way).

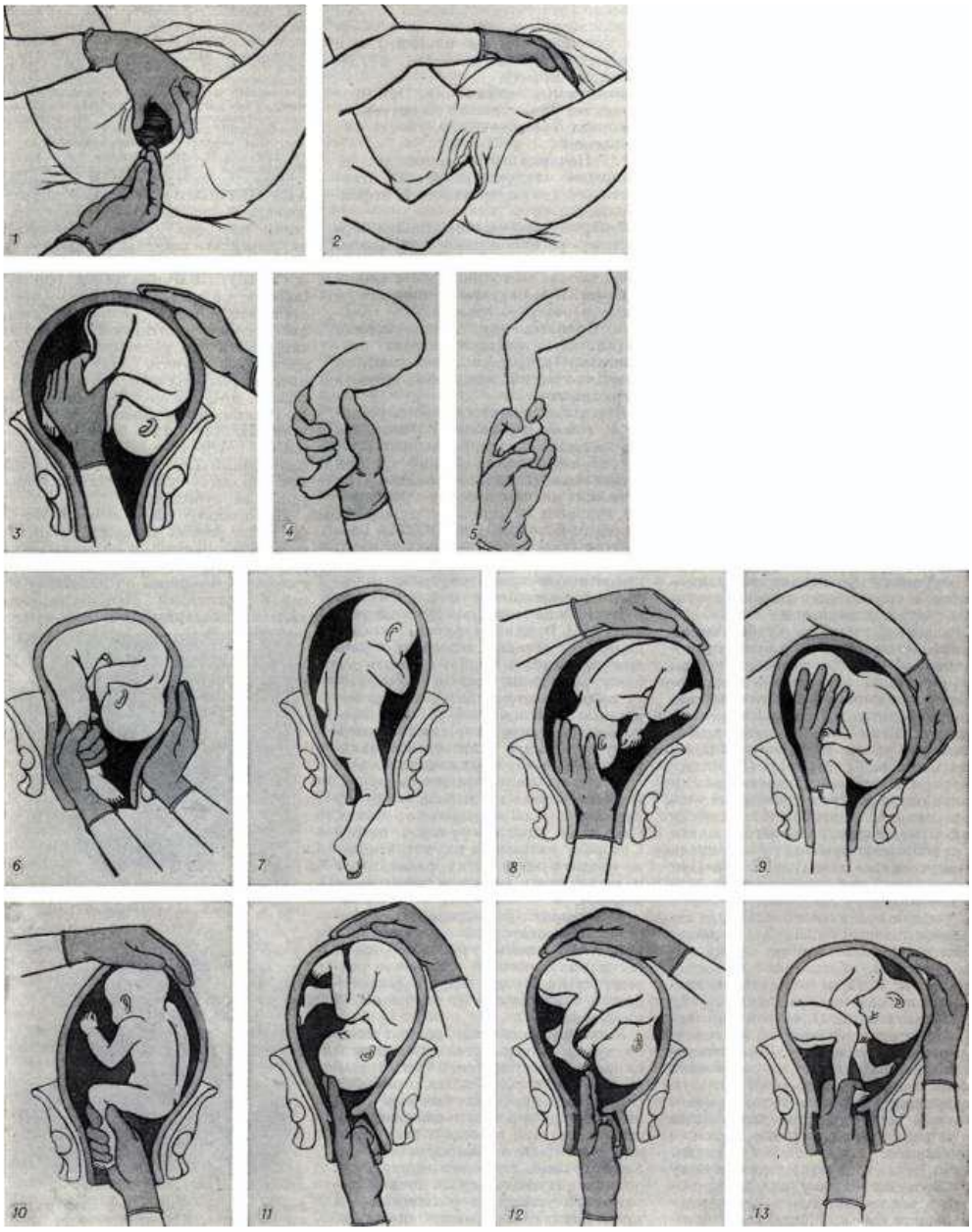
The third moment – grasping the fetal leg. The leg may be grasped in two ways. The first: the shin is grasped with the whole hand in such way that four fingers are placed around the shin,

and the thumb – along it reaching the popliteal space The second: the index and middle fingers grasp the leg close to the ankle, and the thumb holds the foot

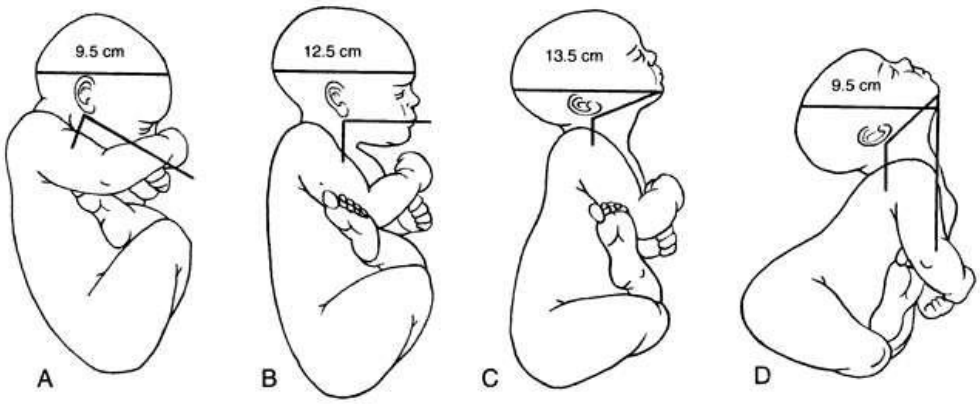
The fourth moment – fetal turning proper

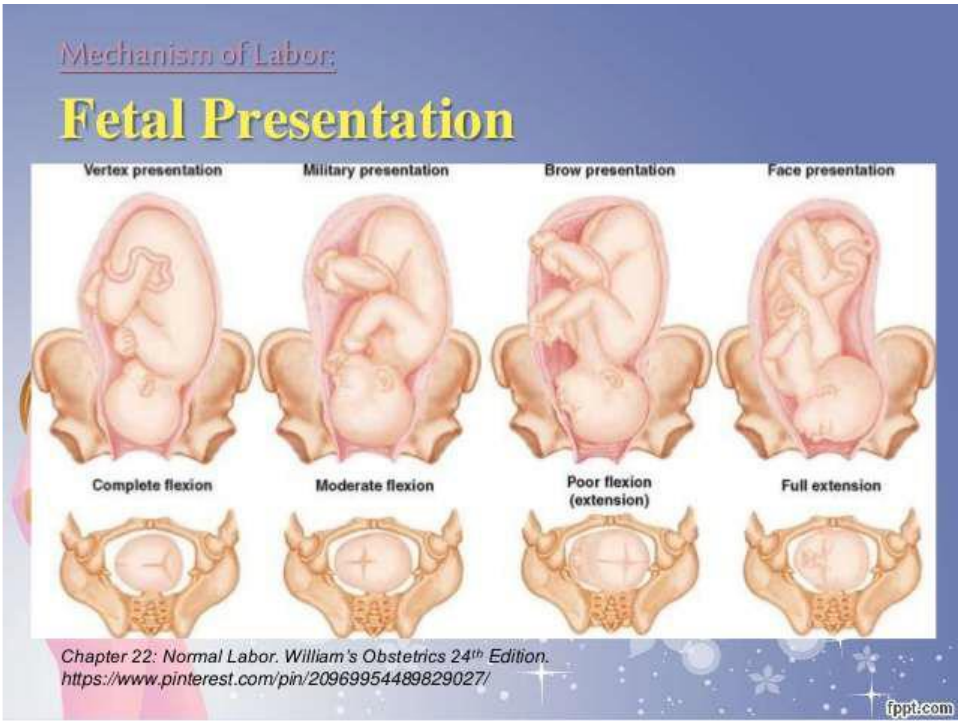
Having grasped the leg, the external hand of the obstetrician is located on the head, the head is carefully moved upwards, to the fundus of uterus. In the meanwhile the leg is moved down with the internal hand and out through the vagina. The operation is over when the leg is out till the popliteal space.

External-internal (combined) obstetrical turn of a fruit on a leg.



Abnormal Fetal Lie and Presentation





Pelvic Presentation

Delivery at pelvic presentation (PP) of the fetus are viewed as borderline between normal and pathological, which is explained by more frequent complications both for the mother and fetus, frequent application of manual aids and operative interventions. Perinatal mortality at this type of presentation is by 4–5 times higher in comparison with delivery at cephalic presentation.

PP frequency makes 3–5 % on average at full-term pregnancy, at incomplete pregnancy the figure increases as pregnancy term dicreases.

The reasons: changes of the lower segment (its stretch and flabbiness), stretch and flabbiness of the prelum abdominale muscles promoting the change of uterine tonus, musculation deficiency caused by organic pathology, pelvic contraction or anomalies of its development, malformations of the uterus and vagina, tumors of the uterus, uterine neck, vagina or ovaries, multifetation, oblique lie of the fetus, when the pelvic pole of the fetus is in one of the mother's iliac fossae, hydramnion or oligohydramnios, malformations of the fetus (hydrocephaly, anencephaly), prematurity, placental presentation, birth activity anomalies.

Classification

1. Breech presentation:

- complete (mixed) – together with the buttocks the legs are also tuned to the pelvic inlet, the legs are bent in the hip and knee joints, the fetus is in the ―squatting‖ position

- incomplete (pure) – only the buttocks present, the legs are stretched along the body, bent in the hip joints and extended in the knee joints, the feet are located in the region of the chin and face;

2. Footling presentation:

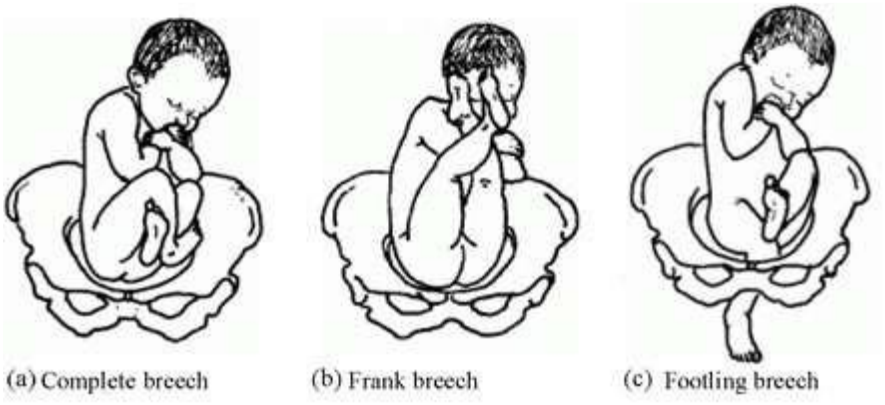
- incomplete – one leg is located in the vagina, it is extended in the hip and knee joints, and the other leg, bent in the hip joint, lies above the presenting one and is bent in the knee joint, but extended in the ankle joint;

- complete – both legs are in the vagina, extended in the hip and knee joints.

3. Knee presentation (forms during delivery):

- incomplete – only one knee fits into the pelvic cavity;

- complete – both legs are bent in the knee joints and are in the lumen of the small pelvis



Diagnostics

At the stage of anamnesis obtaining one might suspect PP if there are the above-listed etiologic factors in the pregnant woman, and also if the pregnant woman herself indicates that fetal movements are felt by her mostly in the lower parts of the abdomen, and in the epigastric area a hard part of the fetus is felt (the fetal head).

At external examination:

1) the uterine fundus is high, set against the xiphoid process or deviated from the median line to the side opposite to the fetal position;

2) in the uterine fundus there is palpated a round, evenly smooth, movable balloting part, which goes in to the fetal body through the cervical constriction;

3) above the pelvic inlet there is detected an irregularly-shaped, soft, poorly fixed part, which is not balloting and goes straight in to the body;

4) fetal heartbeats are often auscultated above the navel or at its level, in accordance with its position.

At vaginal examination: 1) the presenting fetal part is irregularly shaped, bigger and softer than the head, is easily pushed off from the pelvic inlet, does not have sutures, fontanels, hair; 2) at pure breech presentation it is possible to palpate the boy's genitals, the fissure between the buttocks, anus, sacral and coccygeal bones, eccentrically located ischial tuberosities, greater trochanter and inguinal curve on the anterior buttock; palpation of the sacral bone helps to specify the position and type; 3) at mixed breech presentation, except for the mentioned above, one can additionally detect two feet with calcaneal tubers, even and short fingers, which gradullay enlarge, the big fingers can not be pressed to the sole and drawn aside considerably; 4) at complete footling two feet pass into the shins at right angles; 5) at incomplete footling one foot and buttocks are detected; 6) at knee presentation there are detected round knees with popliteal spaces and movable kneelers. The fetal position may be found by the location of the popliteal space: at the first position the space is turned to the left, at the second – to the right.

At evident labor tumor breech presentation may be taken for face presentation. Thorough examination help to prevent such a mistake. At breech presentation the examining finger feels the resistance of the anus muscles, whereas at passing into the mouth harder cushions (jaws) are felt. Moreover, the finger removed from the anus is sometimes stained with meconium. The mouth and molar eminences are triangular, whereas the ischial tuberosities and anus are located on one line. The area of genitals and anus are to be palpated very carefully to avoid injuring.

The provisional diagnosis of PP is put at the term of pregnancy of 30 weeks, and the concluding diagnosis – at 37–38 weeks;

Obstetric status may be specified by means of ultrasound scanning, which in this case is the most informative method of diagnostics, allowing to detect not only the variety of PP, but also the expected weight and sex of the fetus, head position (the degree of extension), placenta localization, amniotic fluid quantity, cord entanglement, the angle between the cervical spine and fetal occipital bone. By the size of this angle there are differentiated 4 variants of head position, which is important for detecting the method of labor management in case of PP: the head is slightly extended – ―soldier posture‖ – the 1st degree of extension, the angle of 100– 110°; the head is moderately extended – the 2nd degree of extension, the angle of 90– 100°; excessive head extension – ―the fetus is stargazing‖ – the 3rd degree of extension, the angle is less than 90°.

Delivery management in the antenatal clinic

When pregnant women with PP are managed in the conditions of the antenatal clinic one may attempt to correct PP: at the term of 30 weeks with the purpose of self-turning of the fetus onto the head there is recommended the woman's position on the side opposite to the fetal position, knee-elbow position during 15 min 2–3 times a day.

From the 32nd till the 37th week during 7–10 days a complex of correcting exercises by one of the existing techniques (I.F. Dykan, I.I. Hryshchenko, A.Y. Shuleshova, and others), which causes irritation of mechano- and baroreceptors, increase of the tonus of the uterus and anterior abdominal wall, change of fetal presentation. The main elements of I.I. Hryshchenko's and A.Y. Shuleshova's correcting gymnastics: 1) introductory exercise during 1 min, which unites walking (may be on the site) with swinging the arms and even breathing; 2) forward and side bending of the pregnant's body, consecutive side turns, pulling the hips to the abdomen at bent knees; 3) the final complex includes the exercises causing contraction of the muscles of the pelvis and pelvic floor.

According to the V.V. Abramchenko's method the pregnant woman is offered twice a day (in the morning and in the evening) on an empty stomach to lie on her back with the pelvic pole

elevated due to lubricating pad up to 30 cm high. The pregnant in the moderate Trandelenburg's position, with the hips slightly moved apart, relaxes, breathes evenly during 10–15 min. She does these exercises during 2–3 weeks.

Performing correcting gymnastics by the Dykan's method the pregnant woman lies down on a hard surface and in turn changes position (on the left and right side – 10 min on each) during 1 h. the exercise is repeated twice a day before meals.

According to different authors, efficiency of the exercises directed at PP correction makes 76.3–94.5 %.

Contraindications to such exercises are: preterm labor threat, placental presentation, low insertion of placenta, anatomically contracted pelvis of the II–III degree.

If fetal self-turning does not take place and therapeutic physical exercises do not help, external abdominal version is performed at full-term pregnancy, but not in the conditions of the antenatal clinic – in the conditions of the hospital of the 3rd level.

At the term of 38 weeks a doctor of antenatal clinic determines the necessity of hospitalization to the obstetric department of the 3rd level by such indications: compromised obstetric-gynecological history, complicated course of this pregnancy, extragenital pathology; decides the question of possible external abdominal version.

In the conditions of the obstetric department general and obstetric anamnesis is thoroughly examined, the diagnosis is specified (pregnancy term, expected fetal weight, PP variety), internal and external obstetric examination is conducted, ultrasonography; fetal condition is assessed, dopplerometry if necessary), readiness of the woman's organism to delivery (Bishop's scale), the question of the possibility of external turning onto the head is decided, the plan of labor management is defined.

If the pregnancy is full-term, in the conditions of the 3rd level hospital there may be performed external fetal turning onto the head, which leads to the increase of physiological deliveries in cephalic presentation.

Indications: incomplete breech presentation at full-term pregnancy and alive fetus.

Conditions: fetal weight 3,700 g, normal pelvis, empty urinary bladder, possibility to conduct ultrasonography to specify presentation before and after the operation, satisfactory fetal condition (9–12 points) and the absence of fetal malformations, sufficient mobility of the fetus, normal quantity of amniotic fluid, normal uterine tonus, intact fetal sac, readiness of the surgical ward to render emergency aid in case of complications, the presence of a qualified specialist knowing the procedure of the turning.

Contraindications: complications of pregnancy at the term of making a decision to conduct the turning, compromised obstetric-gynecological history (habitual noncarrying of pregnancy, sterility, perinatal loss), oligo- and hydramnios, anatomically contracted pelvis, scarry changes of the vagina or uterine neck, the 3rd degree of head extension according to ultrasonography, placental presentation, severe extragenital pathology, a uterine scar, peritoneal commissures, hydrocephaly, tumor of fetal neck, uterine malformations, tumors of uterus and uterine appendages.

Operation procedure: the woman is in the position on one side with a 30–40° inclination to the side of the fetal back, the fetal buttocks are drawn aside from the pelvic inlet with the doctor's palms introduced between the womb and fetal buttocks, the fetal buttocks are carefully moved to the side of the fetal position, and the head – to the side opposite to the position. The turning is

finished by means of displacing the fetal head to the pelvic inlet, and the buttocks – to the uterine fundus.

Possible complications – premature detachment of normally located placenta, fetal distress, metrorrhexis.

The course of delivery

High standing of buttocks does not lead to sufficient smoothing of the uterine neck, which is observed when the head is descending into the small pelvis. It is generally known that amniotic fluid discharges prematurely at PP because of the presence of communicating posterior and anterior waters. This is connected with insufficient grasping of the uneven presenting fetal part with the inferior segment of the uterus. This causes all unfavourable consequences of the so-called ―dry labor‖; besides, delivery at pelvic presentation is more long-term than at cephalic presentation.

The prophylaxis of delivery complications in this case must begin with the appearance of the first contractions. To prevent early moving of waters the parturient woman is out into bed and recommended to take the position, in which she is least bothered with contractions. It is expedient to put the parturient woman on the side, where the fetal back is. In such position of the parturient woman the uterus under its weight is declined to the side, on which the parturient woman is lying; the pressure of the presenting part on the uterine neck reduces, which leads to birth activity weakening, and this prevents the fetal sac from early rupture. Besides, such position, reducing the inclination of the parturient woman's pelvis inclination, promotes the synclytic fitting of the presenting part and prevents the umbilical cord from falling out.

Preservation of fetal sac integrity for a longer period of time is necessary for a sufficient opening of the mouth of womb and for the shortening of waterless period duration, not always indifferent for the fetus and parturient woman. In spite of fetal sac integrity, birth activity begins to intensify in the parturient woman. With every next contraction the lower uterine segment, grasping the presenting part more tightly, prevents the umbilical cord from falling out, which is often observed at such delivery.

It is recommended to manage the 2nd period with a mobilized vein for i.v. introduction of 5 IU of oxytocin in 500.0 of saline (up to 20 drops a min). By indications episiotomy and pudendal anesthesia are carried out. At PP delivery is to be managed by a highly qualified specialist, and in the 2nd period an anesthesiologist and a neonatologist are to be present.

Expulsion period deserves special attention, since in this period there may arise such complications as arms throwing, spasm of the internal mouth, rear view formation, fetal hypoxia.

To prevent the mentioned complications delivery at pure breech presentation is managed by the method of Tsovyanov I. It should be emphasized that manual help is not an operation, it is doctor's aid at independent birth of the fetus at PP.

Manual help by the method of Tsovyanov I is begun at the moment of buttocks disengagement;

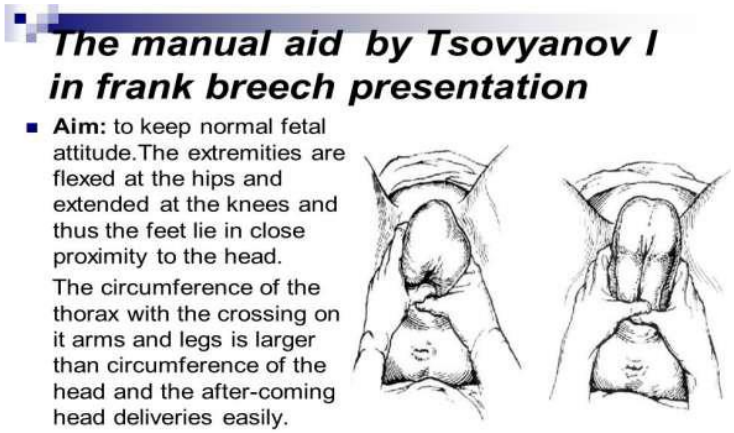
The buttocks, which are being born, are held without any attempts of fetus extraction (premature pulling leads to the violation of the location of parts of body, arms throwing, and head extension)

The main aim is to preserve the normal location of fetal body parts, not to allow the legs to be born prematurely. At normal body parts location the legs are stretched along the body, the

crossed arms are pressed to the thorax, the feet of the stretched legs reach the level of the face and sustain head flexion;

Such position of the legs turns the fetal body into a cone, gradually dilating upwards. Therefore the legs are kept pressed to the fetal body with the thumbs. The other four fingers are placed on the fetal sacral bone;

As the fetus is born, the hands are shifted along the body to the posterior labial commissure of the parturient woman. In the oblique dimension the body is born till the lower angle of the anterior scapula, the shoulder girdle is set in the direct dimension;



At this moment it is important for the obstetrician to direct the buttocks at himself to ease the independent birth of the anterior shoulder from under the pubic arch. For the posterior shoulder to be born the fetus is lifted upwards again.

To prevent the occlusion of umbilical cord with the fetal head after the body is born to the lower angle of the scapulae further delivery of the fetus should not last more than 5–7 min.

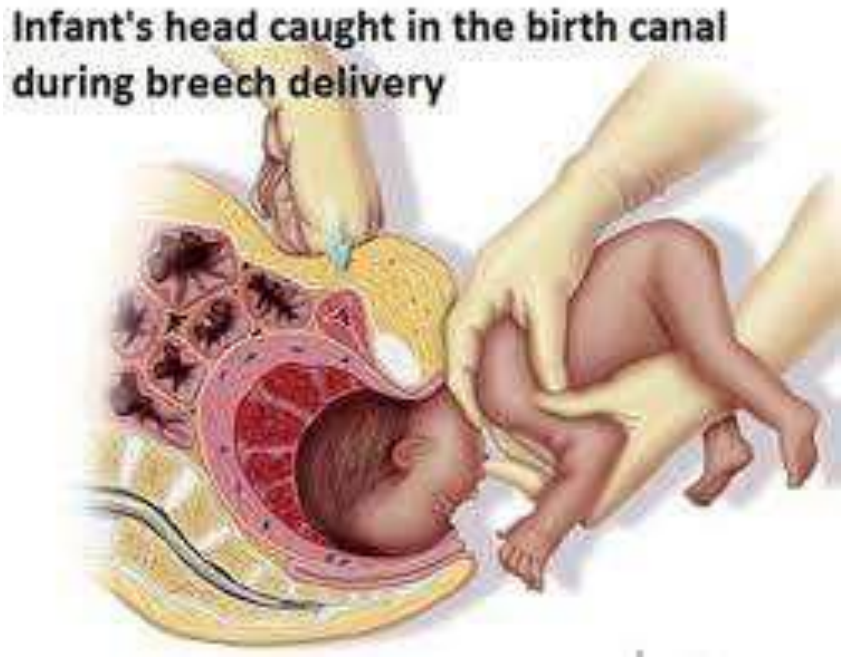
At complications, which may arise when the shoulder girdle is born and thereby causing arms throwing, one should proceed to shoulder girdle release by the technique of classical manual help. One should begin rendering this help already after the fetus is born to the lower angle of the anterior scapula.

The posterior arm is the first to be released;

With one hand the doctors takes the fetal legs by the shins and directs them forward and to the side opposite to the fetal back. The index and middle fingers are introduced into the vagina along the fetal back (to release the similar fetal hand – the similar obstetrician's hand), and, moving along the fetal back and shoulder, the bend of elbow is reached. Then the arm is descended for it to perform a ―washing‖ movement; the elbow, forearm, and hand appear from the vagina in turn.

The anterior hand is taken out after it was passed into the posterior also from the side of the hollow of the sacrum. For this purpose the fetus is grasped with hands by the pelvis and anterior part of the hips (the fetal abdomen should not be touched – 4 fingers of each hand on the hips, the thumbs – on the fetal buttocks) and turned by 180°;

The fetal back is under the symphysis; then the other hand is released similarly to the first one;



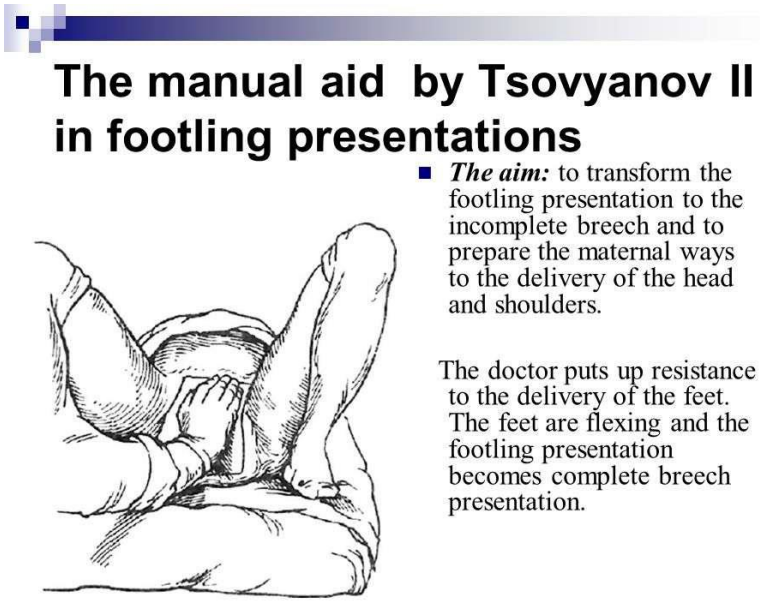
Release of the following head may be performed in a couple of ways. According to the Moriso–Levre–Lashapel's method the fetus is seated in the ―riding‖ position on the obstetrician's handthe middle finger of this hand is introduced into the fetal mouth, and head flexion is provided by slight pressure on the lower jaw. The index and middle fingers of the other hand grasp the fetal shoulder girdle in fork-like manner from above (mind the clavicles!). the same hand conducts tractions downwards (till there appears the scalp of the head and forms a point of fixation between the suboccipital fossa and pubis), and then to himself and upwards.

There may be used head removal by the Bracht's method – entering the small pelvis in the oblique dimension the fetal head finishes its internal turning, descends onto the pelvic floor and at intensive birth activity is born independently, the obstetrician elevates the fetal body to the parturient woman's pubis.

Some obstetricians use the Smelly–Faith's method. To flex the fetal head by this method the fetus is put astride on the palm and forearm of the obstetrician's lower arm with the fetal arms and legs thrown on both sides. The index and ring fingers of this hand carefully press the upper jaw on lateral surfaces close to the fetal nose, the middle finger is put to the chin and the head is flexed. The external hand is out onto the fetal back, the index and ring fingers are hook-like located on each side of the neck, and the middle finger presses the occiput promoting additional head flexion. After the assistant has increased the flexion, pressing the uterine fundus to the fetal head through the anterior abdominal wall, the obstetrician with the upper hand pulls the fetus down till the suboccipital fossa appears under the symphysis, and then performs tractions horizontally and upwards for the head to be born with the small oblique dimension.

When premature fetuses are born the Myers' method is used – the fetus is placed on the lower hand in the way it is performed at classical manual aid. The obstetricians places the index and middle fingers of the hand on the upper fetal jaw on each side of the nose. The palm of the right obstetrician's hand is at the level of the fetal shoulder girdle, the index and middle fingers are introduced maximally deeply along the spine, which allows reaching the inion in premature fetuses. The joint movement of the obstetrician's fingers during contraction allows performing the necessary degree of fetal head flexion.

Manual aid at foot presentation (by the Tsovyanov's method II)



Manual aid aims at preventing the birth of fetal legs till sufficient cervical dilation and in such a way at promoting the intensification of birth activity. The external genital organs of the parturient woman are covered with a sterile tissue. The fetus is kind of squatting down and appears in complete breech presentation. At sufficient cervical dilation, if the buttocks have already descended onto the pelvic floor, the legs are not kept, the fetus is born independently till the lower angle of the scapulae, further the shoulder girdle fetal head are released by means of classical manual aid. Obstetrician's approach if complications arise in the 2nd period:

1. Throwing back of arms – a complication, at which the arms lose their typical position, move from the thorax up and to the face or occiput.. There are differentiated three degrees of the throwing back of arms: I – the arm is in front of the ear, II – at the level of the ear, III – behind the fetal ear. The most frequent in such cases is severe fetal hypoxia (or even fetal death) because of protracted delivery of the head, since the volume of the headtogether with the arm increases so much that without rendering immediate help delivery can not end successfully.

The thrown back arms must be released right after the fetus is born to the lower angle of the anterior scapula, because later the head fits tightly into the small pelvis and this anomalous position fixes. The release of the thrown back arms of the 1st and 2nd degree is conducted from the side of the fetal back or thorax. To perform the first method the fetal legs are declined upwards into the position opposite to the inguinal bend. The four fingers of the internal hand move along the back, shoulder, grasp the arm above the elbow and take it out anteriad, descending from the lateral surface of the head or face on the thorax downwards.

According to the second method the arms are grasped not from the side of the back but from the side of the fetal thorax (only in para II, wit the normal dimensions of the mother's pelvis and small fetal weight). In this case the legs are declined with one hand downwards, and fingers of the other hand are moved to the shoulder, the arms are taken out along the face, chest, and abdomen of the child.

To take out the thrown back arms of the 2nd and 3rd degree the Preobrazhenskiy's method is used. At the 2nd or 3rd degree of the throwing back of the arms the lower angles of scapulae rise and sharply diverge to the sides from the backbone. The obstetrician presses the lower angles of the scapulae from the outside inwards, displacing them to the side of the backbone. The muscles

attached to the scapulae pull the fetal humerus and elbow downwards to facilitate the subsequent release of the thrown back arm in one of the above-listed ways.

To release the thrown back arm of the 3rd degree the fetus is rotated around its longitudinal axis in the direction of the pathologically located hand as if unwinding a twisted cord. For this purpose the fetus is put onto the forearm, and the palm of the internal hand, as it is done at classical manual aid, pushes the fetus to the side of the small pelvis, and only after this the turning is performed. Here might be a couple of variants:

1) if the anterior arm is thrown back, the posterior arm should be released in the usual way. After this (fixing the posterior arm) one should turn the fetal body in such a way that the fetal chest, and not the back, is under the symphysis. After the anterior arm become posterior it is released in the usual way;

2) if the posterior arm is thrown back, the fetus is rotated around the longitudinal axis in such a way that its back is under the symphysis. After this the anterior arm, which is not thrown back, moves backwards to the side of the perineum and is released in the usual way. Then the second fetal turning is performed for the arm, which is lying freely in front, to turn backwards, where it is released in the usual way.

One of severe complications is also the formation of the posterior view at PP, when the back turns backwards, the course of delivery decelerates, the coming out of the shoulders and head is complicated. When the head is flexed the area of the bridge of nose rests against the symphysis, and the occiput comes out above the perineum. But more often the head is extended, the chin is held above the symphysis, and the head must be born in the condition of extreme extension. Without obstetric help the delivery of the head is delayed and the fetus dies of asphyxia. The head must be released quickly and carefully by means of special maneuvers.

Coming out of the head depends on its condition – if it is flexed or extended. In the first case the inverse Morisso's method is used – the obstetrician introduces the first phalanx of the index finger of the upper hand into the fetal mouth and maximally flexes the head till it rests upon the inferior margin of the symphysis with the anterior part of the prefontanel. Simultaneously the other hand is placed in forked manner on the posterior surface of the shoulders and performs tractions upwards till the fetal head is born with the large transversal dimension.

In case of head extension and chin holdback above the horizontal pubic ramus it is offered to use the ―inverse Prague method‖ – one hand grasps the fetus by the shoulders from behind, the other – by the legs in the region of ankle joints. First there is performed a downwards traction till there appears the hairy part of the occiput, then – a strong traction downwards and anteriad. The head is born rotating around the symphysis pubis. Performing the maneuver one must exert pressure on the hand above the womb. Episiotomy is obligatory for the prophylaxis of deep perineal ruptures.

3. In case of fetal distress in the 3rd period (the fetal buttocks on the pelvic floor or are cutting into) delivery is conducted by means of the operation of fetal extraction by the pelvic pole.

4. If there appears a spastic contraction of the mouth of womb, it is necessary to introduce i.v. 0.5–1.0 ml of 0.1 % atropine sulfate solution, 2 ml of 2 % of papaverine hydrochloride solution, 2 ml of No-Spa, or stop tractions temporarily. If there is no effect and the uterine neck is thin and smooth, some authors recommend cervicotomy by Dursen on the places corresponding to 2, 6, and 10 hours of the dial plate. If it is possible, the index finger is brought into the child's mouth, the obstetrician significantly flexes the fetal head (corresponding reduction of its dimensions) and shifts

the anterior lip of cervix uteri from the occiput upwards under the symphysis pubis of the mother. Indications to the operation of cesarean section:

- expected fetal weight of 3,700 g and more;

- fooling presentation of the fetus;

- fetal head extension of the 3rd degree by ultrasonography data;

- fetal neck tumors and hydrocephaly.

Because of the high frequency of unfavourable outcomes for the fetus at PP in case of delivery through the natural maternal passages, most obstetricians consider it expedient to expand indications to cesarean section. Thus, if there arise complications of the delivery process at PP, one should more often put a question of operative delivery.

The gestational age of the fetus is important if operative preterm delivery is discussed. At the term of pregnancy of 32–36 weeks (fetal weight 1,500–2,500 g) cesarean section is considered more expedient, since according to literature the number of children, who died after the operation is 16 times less than at preterm delivery through the natural maternal passages. If the fetal weight is □ 1,500 g, the method of delivery does not influence perinatal outcome.

Pelvic presentation

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—incomplete (pure) — only the buttocks present, the legs are stretched along the body, bent in the hip joints and extended in the knee joints, the feet are located in the region of the chin and face

2. Footling presentation:

—incomplete — one leg is located in the vagina, it is extended in the hip and knee joints, and the other leg, bent in the hip joint, lies above the presenting one and is bent in the knee joint, but extended in the ankle joint;

—complete — both legs are in the vagina, extended in the hip and knee joints.

3. Knee presentation (forms during delivery):

----- incomplete — only one knee fits into the pelvic cavity;

----- complete — both legs are bent in the knee joints and are in the lumen of the small pelvis.

Diagnostics

At the stage of anamnesis obtaining one might suspect PP if there are the above-listed etiologic factors in the pregnant woman, and also if the pregnant woman herself indicates that fetal movements are felt mostly in the lower parts of the abdomen, and in the epigastric area a hard part of the fetus is felt (the fetal head).

At external examination: 1) the uterine fundus is high, set against the xiphoid process or deviated from the median line to the side opposite to the fetal position; 2) in the uterine fundus there is palpated a round, evenly smooth, movable balloting part, which goes in to the fetal body through the cervical constriction; 3) above the pelvic inlet there is detected an irregularly-shaped, soft, poorly fixed part, which is not balloting and goes straight in to the body; 4) fetal heartbeats are often auscultated above the navel or at its level, in accordance with its position.

At vaginal examination: 1) the presenting fetal part is irregularly shaped, bigger and softer than the head, is easily pushed off from the pelvic inlet, does not have sutures, fontanels, hair; 2) at pure breech presentation it is possible to palpate the boy's genitals, the fissure between the buttocks, anus, sacral and coccygeal bones, eccentrically located ischial tuberosities, greater trochanter and inguinal curve on the anterior buttock; palpation of the sacral bone helps to specify the position and type; 3) at mixed breech presentation, except for the mentioned above, one can additionally detect two feet with calcaneal tubers, even and short fingers, which gradually enlarge, the big fingers can not be pressed to the sole and drawn aside considerably; 4) at complete footling presentation two feet pass into the shins at right angles; 5) at incomplete footling presentation one foot and buttocks are detected; 6) at knee presentation there are detected round knees with popliteal spaces and movable kneelers. The fetal position may be found by the location of the popliteal space: at the first position the space is turned to the left, at the second — to the right.

At evident labor tumor breech presentation may be taken for face presentation. Thorough examination helps to prevent such a mistake. At breech presentation the examining finger feels the resistance of the anus muscles, whereas at passing into the mouth harder cushions (jaws) are felt. Moreover, the finger removed from the anus is sometimes stained with meconium. The mouth and molar eminences are triangular, whereas the ischial tuberosities and anus are located on one line. The area of genitals and anus are to be palpated very carefully to avoid injuring.

The provisional diagnosis ofPP is made at the term of pregnancy of 30 weeks, and the concluding diagnosis — at 37-38 weeks.

The obstetric status may be specified by means of ultrasound scanning, which in this case is the most informative method of diagnostics, allowing to detect not only the variety of PP, but also the expected weight and sex of the fetus, head position (the degree of deflexion), placenta localization, amniotic fluid quantity, cord entanglement, the angle between the cervical spine and fetal occipital bone. By the size of this angle there are differentiated 4 variants of head position, which is important for detecting the method of labor management in case of PP: the head is slightly deflexed — "soldier posture" — the 1st degree of deflexion, the angle of 100—110°; the head is moderately deflexed — the 2nd degree of deflexion, the angle of 90—100°; excessive head deflexion — "the fetus is stargazing" — the 3rd degree of deflexion, the angle is less than 90°.

Pregnancy Management

When pregnant women with PP are managed in the conditions of the antenatal clinic one may attempt to correct PP: at the term of 30 weeks with the purpose of self-turning of the fetus onto the head there is recommended the woman's position on the side opposite to the fetal position, knee-elbow position during 15 min 2—3 times a day.

From the 32nd till the 37th week during 7—10 days a complex of correcting exercises by one of the existing techniques (I.F. Dvkan, I.I. Hryshchenko, A.Y. Shuleshova, and others), which causes irritation of mechano- and baroreceptors, increase of the tonus of the uterus and anterior abdominal wall, change of fetal presentation.

The main elements of ***the I.I. Hryshchenko's and A.Y. Shuleshova's correcting gymnastics***: 1) introductory exercise during 1 min, which unites walking (may be on the spot) with swinging the arms and even breathing; 2) forward and side bending of the pregnant woman's body, consecutive side turns, pulling the hips to the abdomen at bent knees; 3) the final complex includes the exercises causing contraction of the muscles of the pelvis and pelvic floor.

According to ***the V.V. Abramchenko's method*** the pregnant woman is offered twice a day (in the morning and in the evening) on an empty stomach to lie on her back with the pelvic pole elevated due to a lubricating pad up to 30 cm high. The pregnant in the moderate Trandelenburg position, with the hips slightly moved apart, relaxes, breathes evenly during 10—i5 min. She does these exercises during 2—3 weeks.

Performing correcting gymnastics by ***the Dykan's method*** the pregnant woman lies down on a hard surface and in turn changes position (on the left and right side — 10 min on each) during 1 h. The exercise is repeated twice a day before meals.

According to different authors, efficiency of the exercises directed at PP correction makes 76.3—94.5 %.

Contraindications to such exercises are: preterm labor threat, placental presentation, low insertion of placenta, anatomically contracted pelvis of the II—III degree.

If fetal self-turning does not take place and therapeutic physical exercises do not help, external abdominal version is performed at full-term pregnancy, but not in the conditions of the antenatal clinic — in the conditions of the hospital of the 3rd level.

At the term of 38 weeks a doctor of the antenatal clinic determines the necessity of hospitalization to the obstetric department of the 3rd level by such indications: compromised obstetric-gynecological history, complicated course of this pregnancy, extragenital pathology; decides the question of possible external abdominal version.

In the conditions of the obstetric department general and obstetric anamnesis is thoroughly examined, the diagnosis is specified (pregnancy term, expected fetal weight, PP variety), internal and external obstetric examination is conducted, ultrasonography; fetal condition is assessed (biophysical fetal profile (BFP), dopplerometry if necessary), readiness of the woman's organism to delivery (the Bishop's score), the question of the possibility of external turning onto the head is decided, the plan of labor management is defined.

If the pregnancy is full-term, in the conditions of the 3rd level hospital there may be performed external fetal turning onto the head, which leads to the increase of physiological deliveries in cephalic presentation.

Indications: incomplete breech presentation at full-term pregnancy and alive fetus.

Conditions: fetal weight < 3,700 g, normal pelvis, empty urinary bladder, possibility to conduct ultrasonography to specify presentation before and after the operation, satisfactory fetal condition (BFP 9—12 points) and the absence of fetal malformations, sufficient mobility of the fetus, normal quantity of amniotic fluid, normal uterine tonus, intact fetal sac, readiness of the surgical ward to render emergency aid in case of complications, the presence of a qualified specialist knowing the procedure of the turning.

Contraindications: complications of pregnancy at the term of making a decision to conduct the turning, compromised obstetric-gynecological history (habitual noncarrying of pregnancy, sterility, perinatal loss), oligo- and hydramnios, anatomically contracted pelvis, scarry changes of the vagina or uterine neck, the 3rd degree of head deflexion according to ultrasonography, placental presentation, severe extragenital pathology, a uterine scar, peritoneal commissures, hydrocephaly, tumor of fetal neck, uterine malformations, tumors of uterus and uterine appendages.

Operation procedure: the woman is in the position on one side with a 30—40° inclination to the side of the fetal back, the fetal buttocks are drawn aside from the pelvic inlet with the doctor's palms introduced between the womb and fetal buttocks, the fetal buttocks are carefully moved to the side of the fetal position, and the head — to the side opposite to the position. The turning is finished by means of displacing the fetal head to the pelvic inlet, and the buttocks — to the uterine fundus.

Possible complications: premature detachment of the normally located placenta, fetal distress, metrorrhexis.

Delivery Course

A high standing of buttocks does not lead to sufficient smoothing of the uterine neck, which is observed when the head is descending into the small pelvis. It is generally known that the amniotic fluid discharges prematurely at PP because of the presence of communicating posterior and anterior waters. This is connected with insufficient grasping of the uneven presenting fetal part with the inferior segment of the uterus. This causes all unfavorable consequences of the so-called "dry labor"; besides, delivery at pelvic presentation is more long-term than at cephalic presentation.

The prophylaxis of delivery complications in this case must begin with the appearance of the first contractions. To prevent early moving of waters the parturient woman is out into bed and recommended to take the position, in which she is least bothered with contractions. It is expedient to put the parturient woman on the side, where the fetal back is. In such position of the parturient woman the uterus under its weight is declined to the side, on which the parturient woman is lying; the pressure of the presenting part on the uterine neck reduces, which leads to birth activity weakening, and this prevents the fetal .sac from early rupture. Besides, such position, reducing the inclination of the parturient woman's pelvis, promotes the synclytic fitting of the presenting part and prevents the umbilical cord from falling out.

Preservation of fetal sac integrity for a longer period of time is necessary for a sufficient opening of the mouth of womb and for the shortening of waterless period duration, not always indifferent for the fetus and parturient woman. In spite of fetal sac integrity, birth activity begins to intensify in the parturient woman. With every next contraction the lower uterine segment, grasping the presenting part more tightly, prevents the umbilical cord from falling out, which is often observed at such delivery.

It is recommended to manage the 2nd stage with a mobilized vein for i.v. introduction of 5 IU of oxytocin in 500.0 of saline (up to 20 drops a min). By indications episiotomy and pudendal anesthesia are carried out. At PP delivery is to be managed by a highly qualified specialist, and at the 2nd stage the anesthesiologist and neonatologist are to be present.

Expulsion stage deserves special attention, since at this aid there may arise such complications as arms throwing, spasm of the internal mouth, rear view formation, fetal hypoxia.

To prevent the mentioned complications delivery at pure breech presentation is managed by Tsovyanov I. It should be emphasized that manual aid is not an operation, it is doctor's aid at independent birth of the fetus at PP.

Fig. 64. Location of the obstetrician's hands at buttocks disengagement

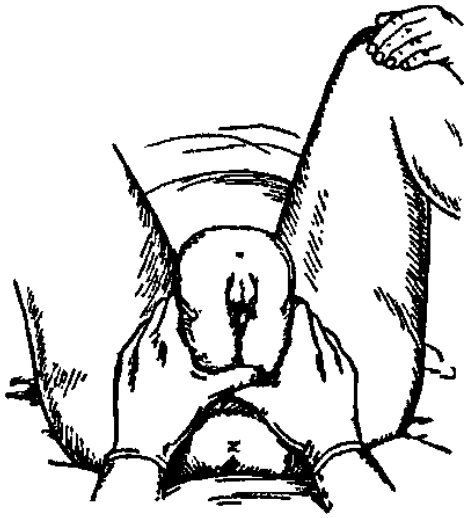

Fig. 65. Movement of the obsteri- cian's hands along the fetal body

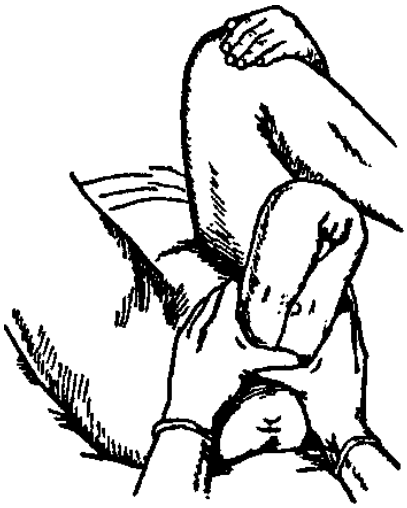

Fig. 66. Further movement of the obstetrician's hands along the fetal body after internal turning of the fetal shoulders

Fig. 67. Further movement of the obstetrician's hands along the fetal body after body turning of the fetal shoulders

Manual aid *by Tsovyanov* I is begun at the moment of buttocks disengagement. The buttocks, which are being born, are held without any attempts of fetus extraction (premature pulling leads to the violation of the location of body parts, arms throwing, and head deflexion).

The main aim is to preserve the normal location of fetal body parts, not to allow the legs to be born prematurely. At normal body parts location the legs are stretched along the body, the

crossed arms are pressed to the thorax, the feet of the stretched legs reach the level of the face and sustain head flexion.

Such position of the legs turns the fetal body into a cone, gradually dilating upwards. Therefore the legs are kept pressed to the fetal body with the thumbs. The other four fingers are placed on the fetal sacral bone.

As the fetus is born, the hands are shifted along the body to the posterior labial commissure of the parturient woman. In the oblique dimension the body is born till the lower angle of the anterior scapula, the shoulder girdle is set in the direct dimension.

At this moment it is important for the obstetrician to direct the buttocks at himself to ease the independent birth of the anterior shoulder from under the pubic arch. For the posterior shoulder to be born the fetus is lifted upwards again. To prevent the umbilical cord occlusion with the fetal head after the body is born to the lower angle of the scapulae further delivery of the fetus should not last more than 5—7 min. At complications, which may arise when the shoulder girdle is born and thereby causing arms throwing, one should proceed to shoulder girdle release by the technique of classical manual aid. One should begin rendering this help already after the fetus is born to the lower angle of the anterior scapula. The posterior arm is the first to be released.

With one hand the doctors takes the fetal legs by the shins and directs them forward and to the side opposite to the fetal back. The index and middle fingers are introduced into the vagina along the fetal back (to release the similar fetal hand — the similar obstetrician's hand), and, moving along the fetal back and shoulder, the bend of elbow is reached. Then the arm is descended for it to perform the "washing" movement; the elbow, forearm, and hand appear from the vagina in turn.

The anterior arm is taken out after it was passed into the posterior position also from the side of the hollow of sacrum. For this purpose the fetus is grasped with hands by the pelvis and anterior part of the hips (the fetal abdomen should not be touched — 4 fingers of each hand on the hips, the thumbs — on the fetal buttocks) and turned by 180° .

The fetal back is under the symphysis; then the other hand is released similarly to the first one. Release of the head may be performed in a couple of ways. According to the Mauriceau—Levret's method the fetus is seated in the "riding" position on the obstetrician's hand, the middle finger of this hand is introduced into the fetal mouth, and head flexion is provided by slight pressure on the lower jaw. The index and middle fingers of the other hand grasp the fetal shoulder girdle in fork-like manner from above (mind the clavicles!). The same hand conducts tractions downwards (till there appears the scalp of the head and forms a point of fixation between the suboccipital fossa and pubis), and then to himself and upwards.

There may be used head removal by the Bracht's method — entering the small pelvis in the oblique dimension the fetal head finishes its internal turning, descends onto the pelvic floor and at intensive birth activity is born independently, the obstetrician elevates the fetal body to the parturient woman's pubis.

Some obstetricians use **the Veit—Smellie's method**. To flex the fetal head by this method the fetus is put astride on the palm and forearm of the obstetrician's lower arm with the fetal arms and legs thrown on both sides. The index and ring fingers of this hand carefully press the upper jaw on lateral surfaces close to the fetal nose, the middle finger is put to the chin and the head is flexed. The external hand is out onto the fetal back, the index and ring fingers are hooklike located on each side of the neck, and the middle finger presses the occiput promoting additional head flexion. After the assistant has increased the flexion, pressing the uterine fundus to the fetal head through the

anterior abdominal wall, the obstetrician with the upper hand pulls the fetus down till the suboccipital fossa appears under the symphysis, and then performs tractions horizontally and upwards for the head to be born with the small oblique dimension.

When premature fetuses are born **the Myers' method** is used — the fetus is placed on the lower hand in the way it is performed at classical manual aid. The obstetrician places the index and middle fingers of the hand on the upper fetal jaw on each side of the nose. The palm of the right obstetrician's hand is at the level of the fetal shoulder girdle, the index and middle fingers are introduced maximally deeply along the spine, which allows reaching the inion in premature fetuses. The joint movement of the obstetrician's fingers during contraction allows performing the necessary degree of fetal head flexion.

Manual aid at foot presentation (by Tsovya nov II) aims at preventing the birth of fetal legs till sufficient cervical dilation and in such a way at promoting the intensification of birth activity. The external genital organs of the parturient woman are covered with a sterile tissue. The fetus is kind of squatting down and appears in complete breech presentation. At sufficient cervical dilation, if the buttocks have already descended onto the pelvic floor, the legs are not kept, the fetus is born independently till the lower angle of the scapulae, further the shoulder girdle and fetal head are released by means of classical manual aid.

The obstetric approach if complications arise in the 2nd period: 1. Throwing back of arms — a complication, at which the arms lose their typical position, move from the thorax up and to the face or occiput. There are differentiated three degrees of the throwing back of arms: I — the arm is in front of the ear, II — at the level of the ear, III — behind the fetal ear. The most frequent in such cases is severe fetal hypoxia (or even fetal death) because of protracted delivery of the head, since the volume of the head together with the arm increases so much that without rendering immediate help delivery can not end successfully.

The thrown back arms must be released right after the fetus is born to the lower angle of the anterior scapula, because later the head fits tightly into the small pelvis and this anomalous position fixes. The release of the thrown back arms of the 1st and 2nd degree is conducted from the side of the fetal back or thorax. To perform the first method the fetal legs are declined upwards into the-position opposite to the inguinal fold. The four fingers of the internal hand move along the back, shoulder, grasp the arm above the elbow and take it out anteriad, descending from the lateral surface of the head or face on the thorax downwards.

According to the second method the arms are grasped not from the side of the fetal back but from the side of the fetal thorax (only in para II, wit the normal dimensions of the mother's pelvis and small fetal weight). In this case the legs are declined with one hand downwards, and fingers of the other hand are moved to the shoulder, the arms are taken out along the face, chest, and abdomen of the child.

To take out the thrown back arms of the 2nd and 3rd degree the Preobrazhenskiy's method is used. At the 2nd or 3rd degree of the throwing back of arms the lower angles of scapulae rise and sharply diverge to the sides from the backbone. The obstetrician presses the lower angles of the scapulae from the outside inwards, displacing them to the side of the backbone. The muscles attached to the scapulae pull the fetal humerus and elbow downwards to facilitate the subsequent release of the thrown back arm in one of the above-listed ways.

To release the thrown back arm of the 3rd degree the fetus is rotated around its longitudinal axis in the direction of the pathologically located hand as if unwinding a twisted cord. For this purpose the fetus is put onto the forearm, and the palm of the internal hand, as it is done at classical

manual aid, pushes the fetus to the side of the small pelvis, and only after this the turning is performed. Here might be a couple of variants:

1. if the anterior arm is thrown back, the posterior arm should be released in the usual way. After this (fixing the posterior arm) one should turn the fetal body in such a way that the fetal chest, and not the back, is under the symphysis. After the anterior arm becomes posterior it is released in the usual way;

2. if the posterior arm is thrown back, the fetus is rotated around the longitudinal axis in such a way that its back is under the symphysis. After this the anterior arm, which is not thrown back, moves backwards to the side of the perineum and is released in the usual way. Then the second fetal turning is performed for the arm, which is lying freely in front, to turn backwards, where it is released in the usual way.

One of severe complications is also the formation of the *posterior view* at PP, when the back turns backwards, the course of delivery decelerates, coming out of the shoulders and head is complicated. When the head is flexed the area of the bridge of nose rests against the symphysis, and the occiput comes out above the perineum. But more often the head is extended, the chin is held above the symphysis, and the head must be born in the condition of extreme deflexion. Without obstetric help the delivery of the head is delayed and the fetus dies of asphyxia. The head must be released quickly and carefully by means of special maneuvers.

Coming out of the head depends on its condition — if it is flexed or extended. In the first case **the inverse Mauriceau's method** is used — the obstetrician introduces the first phalanx of the index finger of the upper hand into the fetal mouth and maximally flexes the head till it rests upon the inferior margin of the symphysis with the anterior part of the prefontanel. Simultaneously the other hand is placed in forked manner on the posterior surface of the shoulders and performs tractions upwards till the fetal head is born with the large transversal dimension.

In case of head deflexion and chin holdback above the horizontal pubic ramus it is offered to use the "**inverse Prague method**" — one hand grasps the fetus by the shoulders from behind, the other — by the legs in the region of ankle joints. First there is performed a downwards traction till there appears the hairy part of the occiput, then — a strong traction downwards and anteriad. The head is born rotating around the symphysis pubis. Performing the maneuver one must exert pressure on the hand above the womb. Episiotomy is obligatory for the prophylaxis of deep perineal ruptures.

3. In case of fetal distress at the 3rd stage (the fetal buttocks are on the pelvic floor or are cutting into) delivery is conducted by means of the operation of fetal extraction by the pelvic pole.

4. If there appears a spastic contraction of the mouth of womb, it is necessary to introduce i.v. 0.5—1.0 ml of 0.1 % atropine sulfate solution, 2 ml of 2 % of papaverine hydrochloride solution, 2 ml of No-Spa, or stop tractions temporarily. If there is no effect and the uterine neck is thin and smooth, some authors recommend cervicotomy by Dursen on the places corresponding to 2, 6, and 10 hours of the dial plate. If it is possible, the index finger is brought into the child's mouth, the obstetrician significantly flexes the fetal head (corresponding reduction of its dimensions) and shifts the anterior lip of cervix uteri from the occiput upwards under the symphysis pubis of the mother.

Indications to the operation of cesarean section:

- expected fetal weight of 3,700 g and more;
- footling presentation of the fetus;

- fetal head deflexion of the 3rd degree by ultrasonography data;
- fetal neck tumors and hydrocephaly.

Because of the high frequency of unfavorable outcomes for the fetus at PP in case of delivery through the natural maternal passages, most obstetricians consider it expedient to expand indications to cesarean section. Thus, if there arise complications of the delivery process at PP, one should more often put a question of operative delivery.

The gestational age of the fetus is important if operative preterm delivery is discussed. At the term of pregnancy of 32—36 weeks (fetal weight 1,500—2,500 g) cesarean section is considered more expedient, since according to literature the number of children, who died after the operation, is 16 times less than at preterm delivery through the natural maternal passages. If the fetal weight is < 1,500 g, the method of delivery does not influence perinatal outcome.

TESTS

1.Cephalopelvic disproportion in the absence of gross pelvic abnormality can bediagnosed by:

A. trial of labor

B. ultrasound

C. a maternal stature of less than 158 cm

D. X-ray pelvimetry

E. pelvic examination

2.Umbilical cord prolapse is associated with all the following, EXCEPT :

A. anencephaly

B. post maturity

C. cephalo pelvic disproportion

D. multiparity

E. footing breech presentation

3.If the large fontanel is the presenting part, what is the presentation?

A. sinciput

B. vertex

C. breech

D. face

E. brow

4.A pelvic inlet is felt to be contracted if :

A. the transverse diameter is only 10cm

B. the anterio-posterior diameter is only 12 cm

C. platypelloid pelvis

D. the mother is short

E. the patient had a previous C-section

5.Which of the following terms best describes the pelvic type of small posterior saggital diameter, convergent sidewalls, prominent ischial spines, and narrow pubic arch?

A. android

B. gynecoid.

C. anthropoid

D. platypelloid

E. mixed

6.All the following characteristics are applied to a pelvis favorable to vaginal delivery EXCEPT:

A. obstetric conjugate is less than 10cm

B. sacral promontory can not be felt

C. ischial spines are not prominent

D. subpubic arch accepts 2 fingers

E. intertuberous diameter accepts 4 knuckles on pelvic exam

7.Hyperextension of the fetal head is found in:

A. face presentation

B. vertex presentation

C. shoulder presentation

D. breach presentation

E. hydrocephalic baby

8.A primapara with pelvis size 25-28-31-20 cm has active labor activity. Waters poured out, clear. Fetus weight is 4500 g, the head is engaged to the small pelvis inlet. Vasten's sign as positive. Cervix of uterus is fully dilated. Amniotic sac is absent. The fetus heartbeat is clear, rhythmic, 136 bpm. What is the labor tactics?

A. caesarean section

B. vacuum extraction of the fetus

C. obstetrical forseps

D. conservative tactics of labor

E. stimulation of the labor activity

9.If the axis of fetus and uterus are perpendicular, head to the right, this is:

A. transversal lie, II position

B. longitudinal lie

C. oblique lie, I position

D. oblique lie, II position

E. transversal lie, I position

10.You have just delivered an infant weighing 2.5 kg (5.5 lb) at 39 weeks gestation. Because the uterus still feels large, you do a vaginal examination. A second set of membranes is bulging through a fully dilated cervix, and you feel a small part presenting in the sac. A fetal heart is auscultated at 60 beats per minute. Select the most appropriate procedure:

A. internal version

B. external version

C. midforceps rotation

D. low transverse cesarean section

E. classic cesarean section

SITUATIONAL TASKS

1. A 25-year-old G1P0 patient at 41 weeks presents to labor and delivery complaining of gross rupture of membranes and painful uterine contractions every 2 to 3 minutes. On digital examination, her cervix is 3 cm dilated and completely effaced with fetal feet palpable through the cervix. The estimated weight of the fetus is about 6 lb, and the fetal heart rate tracing is reactive. Which is the best method to achieve delivery?

2. A 25-year-old G1 at 37 weeks presents to labor and delivery with gross rupture of membranes. The fluid is noted to be clear and the patient is noted to have regular painful contractions every 2 to 3 minutes lasting for 60 seconds each. The fetal heart rate tracing is reactive. On cervical examination she is noted to be 4 cm dilated, 90% effaced with the presenting part a −3 station. The presenting part is soft and felt to be the fetal buttock. A quick bedside ultrasound reveals a breech presentation with both hips flexed and knees extended. What type of breech presentation is described?

3. At the internal obstetric examination the doctor palpates above the pelvic inlet only the breech of fetus. What is the type of breech presentation?

4. During internal obstetric examination at laboring womanthe doctor palpates one fetal foot above the pelvic inlet. What is the type of breech presentation?

5. A 23-year-old G1 at 38 weeks gestation presents in active labor at 6 cm dilated with ruptured membranes. On cervical examination the fetal nose, eyes, and lips can be palpated. The fetal heart rate tracing is 140 beats per minute with accelerations and no decelerations. The patient's pelvis is adequate. Which of the following is the most appropriate management for this patient?