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OBSTETRIC BLEEDING DURING THE SECOND HALF OF PREGNANCY AND CHILDBIRTH

Guidelines to practical training in obstetrics
for higher education students of the 5th year Medical Faculty

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The methodical recommendations contain a list of theoretical questions on the topic for independent preparation of students for practical training, a list of recommended and additional literature, as well as an example of test tasks.

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CONTENTS

LIST OF CONDITIONAL ABBREVIATIONS.....	4
INTRODUCTION.....	5
SECTION 1. Obstetric bleeding during the second half pregnancy and childbirth	6
1.1. Placental presentation.....	6
1.2. Premature detachment of a normally located placenta	10
SECTION 2. Obstetric bleeding during childbirth.....	14
2.1. The uterine rupture	14
2.2. Bleeding in the consecutive period.....	18
TEST QUESTIONS.....	21
LIST OF RECOMMENDED LITERATURE	23

LIST OF CONDITIONAL ABBREVIATIONS

BP – blood pressure

CTG – cardiotocography

DIC – Disseminated intravascular coagulation

FCG – fetocardiography

MOB – massive obstetric bleeding

OB – obstetric bleeding

PDNLP – premature detachment of a normally located placenta

USD – ultrasound diagnosis

WHO – World Health Organization

INTRODUCTION

Obstetric bleeding remains one of the leading causes of maternal morbidity and mortality worldwide. The World Health Organization (WHO) considers maternal mortality by three quarters by 2015 to prevent obstetric haemorrhage and combat them as a priority. Annually, according to WHO (2008), obstetric bleeding (OB) occurs in 14 million women, of whom 128 thousand die from this complication in the first 4 hours after childbirth, which is 1,7 per 1000 births. In the structure of causes of maternal mortality, obstetric haemorrhages occupy one of the first places, and their frequency ranges from 2,5 to 8 % relative to the total number of births, with 2–4 % associated with uterine atony in the postpartum and early postpartum periods, and up to 1 % with premature placental abruption and placental presentation. In Ukraine, over the past 20 years, the incidence of massive obstetric hemorrhage (MOG) has remained high. For the last 5 years they have been art obstetric bleeding occupy the second place in the structure of causes of maternal mortality.

Quality organization of medical care, training of medical workers, introduction of the latest technologies, prognosis, prevention and treatment of obstetric bleedings based on evidence of evidence-based medicine, and rejection of outdated and ineffective practices make it possible to prevent massive blood loss and save life.

SECTION 1

Obstetric bleeding during the second half of pregnancy

Bleeding during the second half of pregnancy and childbirth is usually caused by placental presentation and premature detachment of the normally located placenta. Much less likely to be caused by ruptures of varicose veins of the vagina, pathological processes in the cervix, trauma to the birth canal.

Classification of obstetric bleeding:

Bleeding in the second half of pregnancy:

- placental presentation;
- premature detachment of a normally located placenta;
- uterine rupture.

Bleeding during childbirth:

I period:

- premature detachment of a normally located placenta;
- placental presentation;
- uterine rupture;
- cervical rupture.

II period:

- premature detachment of a normally located placenta;
- uterine rupture.

III period:

- pathology of attachment of the placenta;
- delay, entrapment of the placenta;
- rupture of soft tissues of the maternity tract.

1.1. Placental presentation

Placental presentation (Placenta praevia) refers to an anomaly in which the placenta is located in the region of the inferior segment below the inferior part and partially or completely covers the inner cell the cervix. At physiological location the lower edge of the placenta is above 7 cm from the inner cell.

Classification of abnormal placental location.

1. Full placenta (placenta praevia totalis) – a placenta located in the inferior segment and completely covering the inner cell of the cervix.

2. Incomplete placenta previa (placenta praevia partialis) is a placenta located in the inferior segment that partially overlaps the inner cervix.

2.1. Placental praevia lateralis – the placenta occupies 2/3 of the cervical cell.

2.2. Marginal presentation (placenta praevia marginalis) – placental tissue approaches the edge of the inner cervical cell.

3. Low attachment of the placenta – the location of the placenta in the lower uterine segment below 7 cm from the inner cell.

Due to the migration of the placenta or its growth, the appearance of the presentation may change with increasing pregnancy.

Factors that promote placental presentation:

A. The immaturity of the elements of the blastocyst trophoblast.

B. Inflammatory-degenerative changes of the endometrium and neuromuscular system of the uterus due to:

- chronic endometritis with subsequent scarring of the endometrium;
- abortions complicated by inflammatory processes;
- genital infantilism, endocrinopathy;
- benign tumors of the uterus, including submucosal myomatous nodes, scarring of the uterus;
- effects on the endometrium of chemicals.

Clinical picture of placental presentation

The leading clinical symptom is a sudden without pain

Clinical picture of placental presentation

Blood flow, which may recur from 12 to 40 weeks of gestation, occurs spontaneously or after a leading clinical symptom is sudden without pain, extracorporeal load. Bloody discharge becomes threatening with the onset of uterine contractions at any time. In the mechanism of bleeding during placenta previa, the major role is played by contraction of the uterine muscles and stretching of the lower segment during pregnancy and during labor with impaired integrity of the intercostal space. Placental villi, due to their inability to stretch, lose contact with the walls of the uterus. The duration of bleeding and its severity depend on the size of the placental placenta and the type of presentation. Thus, with central (full) presentation, bleeding often begins early – in the second trimester of pregnancy; for lateral and marginal presentation (incomplete) – in the third trimester or during childbirth. The severity of a woman's condition is determined by the volume and rate of blood loss. The strength of bleeding at full presentation is usually more significant than at incomplete. The first bleeding usually begins spontaneously. Sometimes it can be so intense that it is accompanied by fatal consequences, and repeated recurrent bleeding, although it is quite dangerous (chronic anemization of patients), but the consequences can be more favorable.

Diagnosis

To establish a diagnosis it is necessary to:

Anamnesis: a detailed survey of a pregnant woman to identify risk factors that could lead to anomalies in placental placement.

1. Assess clinical manifestations – recurrent bleeding is not accompanied by pain and increased uterine tone.

2. To conduct obstetric examination:

A. A careful external obstetric examination:

- high location of the upper part;
- uterine tone is not increased;
- Auscultation in the area of the lower segment can be detected by noise placenta;
- the fetal position or pelvic presentation may be incorrect.

B. Examination of the cervix and vagina in the mirrors exclusively in the conditions of advanced operating:

- eliminates other sources of bleeding (rupture of varicose vaginal nodes, pseudo-erosion and cervical cancer).

B. Vaginal examination exclusively in the conditions of detailed operating:

a. with the cervix closed:

- testicular palpability, tissue paste, vascular pulsation are palpated through the arch; high standing of the upper part and inability to palpate;

b. at opening of a cervix not less than on 4–6 sm find out:

- placental tissue – full presentation (placenta praevia totalis);
- fetal membranes and placental tissue – lateral presentation (placenta praevia lateralis);
- fertile membranes and the edge of the placenta – marginal presentation (placenta praevia marginalis);
- Fragility of fetal membranes – low attachment of the placenta.

In the case of significant bleeding, refinement of the nature of the presentation does not make sense, since obstetric tactics are determined by the volume of blood loss and the state of pregnancy.

3. Ultrasound examination has high informative value in determining the location of the placenta and the type of presentation.

Differential diagnosis is performed with diseases that accompanied by bleeding:

- premature detachment of a normally located placenta;
- uterine rupture;
- rupture of varicose nodes in the area of the vulva and vagina;
- cervical cancer and erosion.

Treatment and obstetric tactics for placental presentation.

Bleeding in the second half of pregnancy is an urgent indication for hospitalization. Treatment and examination of pregnant women with bleeding in the second half of pregnancy should be carried out only in the hospital. Doctor's tactics depend on:

1. volume of blood loss and intensity of bleeding;
2. the state of the woman and the fetus;
3. type of placental presentation;
4. term of pregnancy;
5. the degree of maturity of the lungs of the fetus.

Obstetric tactics in preterm pregnancy

In the case of bloody discharge in the second half of pregnancy, the first thing to do is to suspect the placenta and urgently hospitalize the pregnant woman.

1. In the case of small blood loss (up to 250 ml), no symptoms of hemorrhagic shock, fetal distress, lack of labor, immaturity of the lungs of the fetus at pregnancy up to 37 weeks – waiting tactics. The purpose of this tactic is to prolong pregnancy for the maturation of the lungs of the fetus.

Conducted:

- hospitalization;
- tocolytic therapy according to indications;
- acceleration of fetal lung maturation up to 34 weeks of gestation (dexamethasone 6 mg after 12 hours for 2 days);
- monitoring of the condition of the pregnant woman and of the fetus.

2. In case of bleeding progression (more than 250 ml), symptoms appear irrespective of the condition of the fetus and the duration of pregnancy – urgent delivery by caesarean section.

Obstetric tactics in term pregnancy.

With blood loss up to 250 ml. In the case of an expanded operating room, the degree of presentation shall be specified:

- in the case of partial placental presentation, the possibility of reaching the amniotic membranes and the main fetal presentation, active uterine contractions, an amniotomy is performed. At resumption of bleeding – caesarean section. At the termination of bleeding childbirth is conducted through natural maternity ways. After the birth of the fetus – in / m introduction of 10 units of oxytocin, careful observation of the contraction of the uterus and the nature of vaginal discharge;

- in case of complete or incomplete presentation of the placenta, wrong position of the fetus (oblique or transverse) or pelvic presentation, caesarean section is performed;

- with incomplete placenta, dead fetus may have an amniotomy, with termination of bleeding – delivery through natural birth canal.

2. With blood loss of more than 250 ml – regardless of the degree of presentation – urgent caesarean section.

3. At full presentation, diagnosed with ultrasound, without bleeding – hospitalization to the term of delivery, caesarean section in the period of 37–38 weeks.

In the early postpartum period – close monitoring of the condition of the woman in childbirth. At restoration of bleeding after cesarean section surgery and achievement of total blood loss more than 1 % of body weight – urgent relaparotomy, extirpation of uterus without appendages, if necessary – ligation of internal iliac arteries by the specialist who owns this operation.

1.2. Premature detachment of a normally located placenta

Normally, the placenta exfoliates from the uterine walls after the birth of the fetus. If its separation occurs earlier (during pregnancy or in the I and II periods of labor), this pathology is called premature detachment of the normally located placenta (PDNLP).

The frequency of PDNLP ranges from 0.05 to 0.5 %. This pathology refers to severe forms of pregnancy complications and childbirth, accompanied by high maternal and perinatal mortality.

Classification of PDNLP:

1. Complete detachment (all the placenta).

2. Partial exfoliation:

- edges
- central.

Causes of PDNLP

A. During pregnancy:

1. Membrane pathology and pathological processes in spiral arteries that cause loss of their elasticity (preeclampsia, glomerulonephritis, hypertension, diabetes, infusion-allergic vasculitis).

2. Mechanical factors (abdominal trauma).

3. Immune-conflict pregnancy.

4. Dystrophic changes of the endometrium.

5. Anomalies of development and tumors of a uterus.

B. During childbirth:

1. Delayed rupture of fruit membranes.

2. Short cord.

3. Rapid uterine emptying (polyhydramnios, polyplids).

4. Pathology of contractile activity of the uterus.

5. Physical or mental trauma.

Pathogenesis of PDNLP

The mechanism of peeling is the formation of a basal hematoma as a result of pathological changes in the vessels of the deciduous membrane. Delimited hematomas, reaching large sizes, break the basal plate and break into the interstitial bloodstream. There is a detachment of the placenta and compression of the placental tissue formed by the hematoma. Macroscopically, with partial exfoliation, facets («old» exfoliation) or blood clots («acute» exfoliation) are noted on the maternal surface of the placenta. The large uterine-placental hematoma, without finding a way out into the vagina, stretches the placental platform, and there is a uterine-placental apoplexy described by A. Kuveler.

The clinical picture

The leading clinical symptoms of PDNLP are:

1. Pain syndrome: acute pain in the projection of localization of the placenta, which then extends to the entire uterus, across, back and becomes diffuse. The pain is most pronounced in central exfoliation and may not be pronounced in marginal exfoliation. When the placental abruption is located on the posterior wall, the pain can mimic renal colic
2. Uterine hypertonus down to tetany, which is not removed by antispasmodics and tocolytics.
3. Fetal distress and death.
4. Vaginal bleeding may vary depending on the nature of exfoliation (marginal or central) from minor to massive. It can be in several variants: internal, external, combined.

Diagnosis

1. History (general, obstetric and gynecological, presence of extragenital pathology).
2. Assessment of the condition of the pregnant woman, depending on the size of the exfoliation, the volume of blood loss, the onset of symptoms of hemorrhagic shock or DIC.
3. External obstetric examination:
 - uterine hypertonus;
 - the uterus is enlarged in size, can be deformed, with local protrusion;
 - palpation tenderness
 - complication or inability of palpation and auscultation of the fetal heartbeat;
 - fetal distress or death.
4. Internal obstetric examination:
 - fetal bladder tension;
 - coloring of amniotic fluid with blood;
 - bleeding of varying intensity from the uterus.

5. Ultrasound - diagnosis with measurement of the area of exfoliation.

6. Diagnosis of fetal condition (auscultation, ultrasound, FCG).

7. Laboratory tests (erythrocytes, platelets, Hb, Ht, coagulogram, Lee White clotting time).

Obstetric tactics at PDNLP during pregnancy and at the beginning of the first period of labor

1. In case of progressive premature placental abruption during pregnancy or in the first period of labor, when symptoms of hemorrhagic shock, DIC syndrome, signs of fetal distress appear, irrespective of the duration of pregnancy – urgent delivery by caesarean section. In the presence of signs of the uterus Kuveller – extirpation of the uterus without appendages. Unauthorized late delivery leads to fetal death, development of Kuveller's uterus, massive blood loss, hemorrhagic shock and DIC, loss of female reproductive function.

2. Restoration of the amount of blood loss, treatment of hemorrhagic shock and DIC.

3. In case of non-progressive placental detachment, dynamic observation is possible in preterm pregnancy up to 34 weeks (therapy for fetal lung maturation), in establishments where there is a round-the-clock alternation of qualified gynecologists, anesthetists and neonatologists. The monitoring of the state of pregnant and fetus, CTG, ultrasound in the dynamics is carried out.

Features of Cesarean section:

- surgery is preceded by an amniotomy (if conditions exist);
- compulsory revision of uterine walls (especially the outer surface)

in order to exclude uterine-placental apoplexy;

Features of Cesarean section:

- surgery is preceded by an amniotomy (if conditions exist);
- compulsory revision of uterine walls (especially the outer surface)

in order to exclude uterine-placental apoplexy;

- in the case of diagnosing Kuveller's uterus – extirpation of the uterus without appendages; if necessary – ligation of the iliac arteries;

- in the early postoperative period – close monitoring of the condition of the woman giving birth.

Tactics for detachment of the placenta with full opening of the cervix

- immediate amniotomy, if the amniotic bladder is whole;

- at the main presentation of the fetus – the imposition of obstetric forceps;

- for pelvic presentation – fetal extraction for the pelvic end;

- in the transverse position of the second of the double fetus and under conditions, an obstetric rotation is performed with the extraction

of the fetus by the leg. In some cases, a more reliable caesarean section will be;

- manual separation of the placenta and removal of litter;
- reducing agents – 10 IU oxytocin, in the absence of the effect of 800 mcg misoprostol (rectal);
- careful post-partum dynamic follow-up;
- recovery of blood loss, treatment of hemorrhagic shock and DIC.

Pathological bleeding may be considered a blood loss of more than 0.5 % by weight or more than 500 ml. The amount of bleeding is assessed not only on the basis of the amount of blood lost, but also on the basis of the individual physiological reactions of the woman (inadequate increase in blood volume during preeclampsia, difficulty compensating for blood loss in severe anemia, etc.).

SECTION 2

Obstetric bleeding during childbirth

2.1. The uterine rupture

Classification of uterine ruptures (MA Repin, 1984)

I. By pathogenesis:

1. Spontaneous rupture of the uterus:

- with morphological changes of the myometrium;
- at mechanical obstruction of the birth of the fetus;
- in combination of morphological changes of the myometrium and mechanical obstruction of the birth of the fetus.

2. Forcible uterine rupture:

- clean (in case of vaginal operations, with external trauma);
- mixed (with different combinations of gross intervention, morphological changes of the myometrium and mechanical obstruction of the birth of the fetus).

II. By clinical course:

1. The threat of uterine rupture.

2. Starting uterine rupture.

3. The uterine rupture that occurred.

III. By nature of damage:

1. Incomplete uterine rupture (such that it does not penetrate into the abdominal cavity).

2. Full rupture of the uterus (such that penetrates into the abdominal cavity).

3. The rupture at the bottom of the uterus.

Risk for uterine rupture during pregnancy and childbirth:

- cut on the uterus;
- numerous abortions, especially complicated by inflammatory processes of the uterus;
- a large number of births in history: 5 and more;
- heavy fruit;
- pathological insertion of the head (frontal, high straight standing of the head);
- pathological position of the fetus (transverse, oblique);
- narrow pelvis;
- narrow pelvis and increased fetal mass;
- the use of uterotonics (oxytocin, prostaglandins) in pregnant women: with scar on the uterus, against changes in the uterine wall, against

the whole amniotic bladder, in multiple waters, in multiple pregnancy, after multiple abortion, childbirth;

– changes of the cervix after diathermocoagulation, cryodestruction, plastic surgery;

– Tumors of the uterus blocking the output from the pelvis.

Clinic for uterine rupture

Clinical symptoms of the threat of uterine rupture in the disproportion between the fetus and pelvis of the mother:

1. Excessive labor.
2. Insufficient uterine relaxation after birth.
3. Sharply painful contractions, anxiety of labor, storage of pain between contractions in the area of the lower uterine segment.
4. Pain on palpation of the lower uterine segment.
5. Absence or excessive configuration of the fetal head.
6. Head insertion and presentation anomalies (including posterior occipital presentation).
7. Premature, early discharge of amniotic fluid.
8. Unproductive powerful activity with full or close to full disclosure of the cervix, involuntary strokes with the head of the fetus placed high.
9. Edema of the cervix, vagina and external genitals.
10. Maternity tumor on the head of the fetus, which gradually fills the cavity of the pelvis.
11. Difficult urination; with prolonged labor: the appearance of blood.
12. Uterus in the form of «hourglass».
13. Deterioration of the fetus.
14. Blood discharge from the uterine cavity
15. A positive symptom of Henkel-Vasten.

The rupture of the uterus that began with the disproportion between the fetus and the mother's pelvis: the symptoms of uterine rupture are added to the new uterine wall tear that goes through the superficial layers and does not penetrate the entire thickness of the muscular layer:

- contractions become sharply painful and have the character of a court;
- bloody discharge appears from the birth canal;
- increased swelling over the pubis;
- blood is detected in urine;
- the heartbeat of the fetus becomes muted;
- active movements of the fetus appear;
- amniotic fluid is stained with meconium.

In these circumstances, a sudden death of the fetus is possible.

Uterine rupture in the case of imbalance between the fetus and pelvis of the mother Establishing a diagnosis of uterine rupture that has arisen,

as a rule, is not difficult, if before this there was a typical clinical picture of the threat of uterine rupture. Complaints at the time of complete rupture of the uterus: a woman has severe cutting pain.

Objectively:

- a woman apathetic;
- hiccups, nausea, vomiting;
- pale skin;
- frequent weak pulse;
- Cold sweat. Abdominal palpation: - maternity activity is terminated;
- small parts of the fetus are palpated through the anterior abdominal

wall;

- the woman's stomach is irregularly shaped;
- pain on palpation;
- Shchetkin-Bloomberg symptom is positive;
- flatulence is rapidly appearing and increasing due to bowel atony;
- percussion free fluid in the abdomen.

In vaginal examination:

- vaginal bleeding;
- the forebrain extends upwards and becomes mobile (usually the fruit dies). They appear in the urine impurities of blood.

Clinic for scarring of the uterus

The risk of uterine rupture in the presence of a scar during pregnancy
Adrenal and / or lumbar pain, nausea, possible vomiting, and later abdominal pain. Rupture of the uterus that began (cicatrical extension) during pregnancy

- uterine hypertension;
- fetal distress;
- uterine pain on palpation;
- genital bleeding;
- dizziness and general weakness.

Differential diagnosis of uterine rupture during pregnancy is performed with:

- ectopic pregnancy;
- premature detachment of a normally located placenta;
- intestinal obstruction;
- renal colic;
- acute appendicitis.

Treatment

In case of threat of uterine rupture or uterine rupture that has begun:
1) to stop childbirth (tocolytics, deep anesthesia); 2) transport the maternity unit to the operating room; 3) delivery - the method of choice of

caesarean section: - in case of disproportion of the pelvis and the overlying part of only caesareans autopsy (features of the CR: necessarily remove the uterus from the pelvic cavity for a detailed audit of the integrity of its walls); - at histopathic rupture, caesarean section is most often used, but in cases of lowering (finding) of the proximal part of the fetus into the plane of the narrow part of the pelvis or exit from the pelvis, it is possible to give birth through natural birth canal. Emergency medical care in case of uterine rupture:

1. Assess the patient's condition. Carry out ABC diagnostics - assess the state of the respiratory tract (A) and breathing (B), circulation (C) - blood pressure, heart rate.

2. Call the emergency medical team with a diagnosis. Do not transport the maternity by yourself. To eliminate the signs of shock, to stabilize the patient's condition (blood pressure > 100/60 mm Hg) transportation is contraindicated.

3. Psychologically support the mother, explain her condition and the manipulations that take place.

4. Apply the rule of 3 catheters:

- ensure oxygen supply (107. Premature, early discharge of amniotic fluid in the urine 7. Premature, early discharge of amniotic fluid in the urine 15 l / min) - if available;

- catheterize two peripheral veins with catheters < 16-18;

- catheterize the bladder.

5. Provide maternity position on the back with the lower extremities raised.

6. Keep the woman warm.

7. Urgently start infusion therapy at a rate appropriate to the severity of the patient (Ringer's 2 L, meta stabilization of blood pressure > 100/60 mm Hg).

8. Make available anesthesia with available means (in / in promedol 1-2 ml, dimedrol 1 % 1 ml, analgin 2 ml 50 %).

9. Take a sample of 20 ml of blood to further determine the group and rhesus.

10. Observe the maternity ward, control the hemodynamics and vital organs (blood pressure, heart rate, skin, consciousness).

11. Following the arrival of the emergency medical team, follow the instructions of the doctor: Prepare syringes 10 ml, 20 ml, needles for intravenous injection, in / in the catheter, dressing material, alcohol 70 %, gloves, control hemodynamics, functions vital bodies.

2.2. Bleeding in the consecutive period

Classification of causes of bleeding in the III period of childbirth

- pathology of attachment of the placenta;
- retention of parts of the placenta or membranes;
- placental entrapment.

It should be noted that there is a frequent cause of consecutive bleeding delay in the uterus of the placenta, part of it, additional particle, 2/3 of the membranes. In turn, the cause of delay in the uterine lining and its parts may be factors that reduce the tone of the uterus and its contractile capacity.

Pathology of attachment of the placenta

There are two forms of pathological attachment of the placenta:

- tight attachment (lacenta adhaerens) - occurs as a result of atrophy of the sponge layer of the deciduous membrane and occurs on average in 0.9 % of cases.

- placenta accrete - such attachment in which there is no sponge layer of the deciduous membrane between the muscular layer and the chorionic villi and the chorionic villi reach and even penetrate the muscular layer; is extremely rare (1 case per 24,000 births) and almost exclusively in rebirth.

Some obstetricians identify 2 more options for placental enlargement:

- placenta ipcreta – villi grow into the muscular layer of the uterus;
- placenta percreta – the villi germinate both the muscular and serous layers of the uterus.

Tight attachment or placental attachment may be

- full – if the placenta is attached to its bed on the entire surface;
- partial – if the placenta is only in some areas closely linked to the placental site.

The causes of the pathology of attachment of the placenta are due to factors that can be divided into the following groups:

1) structural and morphological changes in the endometrium and myometrium after surgery or inflammatory processes;

2) related to the violation of the enzymatic equilibrium in the system hyaluronic acid – hyaluronidase between the chorionic villi and the deciduous membrane;

3) caused by pathology of placental placement.

Clinical manifestations. Pathology of attachment of the placenta is manifested by either bleeding in a consecutive period (partial tight attachment or placental enlargement), or the absence of signs of independent separation of the placenta in the presence of contractions (complete tight attachment or placental enlargement). Bleeding in the third period of labor

associated with anomaly of attachment of the placenta should be differentiated from bleeding caused by due to delayed parts of the placenta or entrapment of the separated placenta.

Delay in the uterus of parts of the placenta and membranes

The cause of delay in the uterus of parts of the placenta and the membranes is insufficient contractile activity of the uterus and abdominal muscles. This is facilitated by overflow of the bladder, overstretching of the uterus in the case of multiple births or multiple births, premature or delayed childbirth, primary or secondary weakness of labor, fatigue of a woman.

Clinical signs of delay in the uterus of parts of the placenta and membranes

In the case of delay of parts of the placenta and membranes in the uterine cavity, bleeding begins immediately after birth. When examining the litter on its maternal side, defects of the placental tissue may be revealed. If there was an additional fraction of the placenta, then «ruptured vessels» can be seen on the fruit surface.

Separation of the separated placenta

Causes of placental arrest. The entrapment of the detached placenta can occur due to spasm of the tube or cervical region. The cause of this condition is the uneven contraction of the uterus due to its rough massage, the attempt to squeeze the litter. This leads to convulsive contraction of individual muscles, uneven separation of the placenta, bleeding.

Clinical picture of placental entrapment. Placental entrapment in the cervix should be considered when bleeding begins after the birth of the baby with positive signs of separation of the placenta, but without its allocation. On examination of the abdomen in case of entrapment of the placenta in the tubular angle, defining is determined, separated by a constriction from the other part of the body of the uterus. In case of placental trauma, as a result of circulatory spasm the muscles of the inner eye, the uterus takes the form of an hourglass. If there has been a separation of the placenta and its retention in the uterine cavity without entrapment, then the uterus has all the signs of separation of the placenta.

Obstetric tactics in pathology of attachment, separation or allocation of the placenta

1. Catheterization of the peripheral or central vein of maternity infusion, depending on the size of the blood loss and condition of the woman.

2. Emptying of the bladder.

3. Checking the signs of separation of the placenta and the selection of litter by manual techniques.

4. In case of trapping of the litter – external massage of the uterus, external methods of removal of litter.

5. In case of delays of parts of the placenta or membranes – manual examination of the uterine cavity under intravenous anesthesia.

6. In case of violation of the mechanism of separation of the placenta and the absence of bleeding – waiting for 30 min. (for pregnant women at risk – 15 minutes), followed by manual separation of the placenta and separation of placenta.

7. When bleeding occurs – urgent manual separation of the placenta and selection of litter under / in anesthesia.

8. The introduction of uterotonic agents – 10–20 U of oxytocin in / in 400 ml of saline solution in / in a drop.

9. With true enlargement or germination of the placenta – laparotomy, extirpation of the uterus without appendages.

10. Assessment of blood loss and recovery of VCB (see treatment for hemorrhagic shock).

TEST QUESTIONS

1. A 37-year-old premature woman has received complaints of palpable abdominal pain and lumbar tenderness to touch, dizziness, bloody vaginal discharge, increased fetal movements within 6 hours. Objectively: pale, heart rate 100 beats / min, blood pressure 160/100 mm Hg, generalized edema, in the urine 4 g / l of protein. The uterus is in high tone, painful, because of which parts of the fetus palpate fuzzy. The heartbeat of the fetus is fast, 170 beats / min, rhythmic. In internal examination: cervix 3 cm long, the os is closed. The fetal head is pressed to the entrance to the pelvis. The discharge is spotty, spotty. What is the most rational tactic for managing a pregnant woman?

- * A. Urgently give birth to Cesarean section surgery.
- B. Prescribe hemostatic drugs and treatment for fetal hypoxia.
- C. Carry out stimulation with oxytocin administration.
- D. Conduct preeclampsia treatment.
- E. Prescribe tocolytic drugs for prolongation pregnancy.

2. A maternity ward, 28 years old, was admitted to the maternity ward for genital bleeding, which arose 2 hours ago. By the time of admission, the blood loss was 100 ml. Pregnancy is reported. B.P. – 120/80 mm Hg Vaginal examination: the cervix is smoothed, opening – 6 cm. In front and left is defined by a soft spongy tissue, the entire bladder. There is a head moving above the entrance to the pelvis. After the study, the bleeding increased.

What is the most likely diagnosis?

- A. Premature detachment of a normally located placenta.
- * B. Incomplete placental presentation.
- C. The rupture of the marginal sinus.
- D. Rupture of varicose-enlarged vaginal node.
- E. Full placental presentation.

3. Maternity C., 28 years old, the first urgent birth. The first period of labor lasted for 4 hours, the powerful period lasted for 3 minutes. He was born a boy weighing 3800, height 52 cm, in the condition of Apgar 9–10 points. Third period of labor without features, uterus shortened, dense. From the birth canal, there are bloody discharge, which appeared in the first period of childbirth.

What does this clinical picture most?

- * A. Cervical rupture.
- B. Premature detachment of the placenta.

- C. Placental presentation.
- D. The ruptured uterus.
- E. Hypotonic bleeding.

4. The examination of the pregnant woman on the ultrasound revealed a central placenta. Specify the method of delivery likely indicate?

- * A. Cesarean section is dissected.
- B. Vacuum extraction of the fetus.
- C. Imposition of obstetric forceps.
- D. Conservative way.
- E. Pulling out the fetus by the pelvic end.

5. The pregnant woman suddenly started bleeding from the genital tract to 200 ml. Pregnancy 37 weeks, fetal position longitudinal, main presentation, head above the entrance to the pelvis. In vaginal examination: the canal of the cervix passes the transverse finger, in the inner eye and around it through the arches palpable spongy tissue. Name the cause bleeding:

- * A. Placental submission.
- B. The threat of premature birth.
- C. Premature placental detachment.
- D. Cervical erosion.
- E. Low attachment of the placenta

LIST OF RECOMMENDED LITERATURE

Required

1. E. Albert Reece & John Hobbins Clinical Obstetrics of Fetus and Mother. – Third Edition. – Blackwell publishing, 2007. – 328 p.
2. Evans A. T., Niswander K. R. Manual of Obstetrics. Philadelphia, 2000. – 654 p.
3. Jennifer R., Niebyl, Henry L. Galan, Mark B. Landon, Joe Leigh Simpson, Eric R. M. Jauniaux Obstetrics: Normal and Problem Pregnancies. – Elsevier Health Sciences, 2012. – 1292 p.
4. Manual on Obstetrics / Arthur T. Evans. – Seventh Edition. – Lippincott Williams & Wilkins. – 2007. – 425 p.
5. Stuart Campbell, Christoph Lees Obstetrics by Ten Teachers. Malta, 2003. – 516 p.

Additional literature

1. Martin L., Pernoll Benson & Pernoll's handbook of Obstetrics & Gynecology – Tenth Edition, 2010. – 910 p.
2. Obstetrics – edited by Professor I. B. Ventskivska, Kyiv “Medicine”, 2008. – 396 p.
3. Obstetrics & Gynecology PreTest Self-Assessment & Review, Twelfth Edition by Karen M. Schneider, Stephen K. Patrick, 2009. – 289 p.
4. Obstetrics & Gynecology PreTest Self-Assessment and Review Eleventh Edition by Karen M. Schneider, Stephen K. Patrick.-McGraw-Hill Medical Publishing Division, 2006. – 347 p.
5. Obstetrics Illustrated by Kevin P. Hanretty – 2009. – 437 p.
6. Obstetrics Illustrated by Kevin P. Hanretty. – Sixth Edition. – Churchill Livingstone, 2003. – 478 p.
7. Williams Obstetrics / M. C. Graw Hill/ 2005

Навчальне видання

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Козуб Тетяна Олександрівна

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(Англ. мовою)

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