"Затверджено"	
на методичній нараді	кафедри акушерства,
гінекології та планув:	аня сім'ї
медичного інституту	СумДУ
протокол №	
від "	2021p.

## **Methodical development**

independent work of a student in the discipline "Obstetrics"

**Topic**: Obstetric bleeding during the first and second half of pregnancy, childbirth and postpartum period. Intensive care and resuscitation for bleeding in obstetrics.

Number of hours - 4.

**Objective:** to know modern views on the etiology and pathogenesis of bleeding that occur in the first and second halves of pregnancy and during childbirth, classification of bleeding, features of clinical symptoms, nature, frequency of complications occurring in the first and second halves of pregnancy and childbirth and diagnostic possibilities of additional research methods (laboratory, instrumental) for bleeding, methods of stopping bleeding, definition of "pathological bleeding", risk factors, causes, classification of postpartum hemorrhage, clinic, diagnosis, treatment, prevention of bleeding in the postpartum and postpartum periods.

The student must: establish a preliminary diagnosis of bleeding in the first and second half of pregnancy and childbirth, make a plan of examination, diagnosis and treatment of bleeding in the first and second half of pregnancy and childbirth, correctly diagnose bleeding in the third and postpartum periods, assess the amount of blood loss and make a plan to restore the BCC.

## **Class organization:**

Organizational moment	2% study time;
Motivation of the topic	3% study time;
Control of the initial level of knowledge	20% study time;
Independent work of student	35% study time;
Control of the final level of knowledge	20% study time;
Assessment of students' knowledge	15% study time;
Generalization of the teacher, homework	5% study time;

## I. Testing: 20 tests.

## II. Key issues:

1. Bleeding in the first half of pregnancy (miscarriage, ectopic pregnancy, premature detachment and placenta previa). Etiology, pathogenesis, clinic,

diagnostics.

2. Placenta previa: etiology, pathogenesis, classification, clinic, diagnosis, features of the course, management of pregnancy and childbirth.

- 3. Premature detachment of the normally located placenta: etiology, clinic, diagnosis, features of pregnancy and childbirth.
- 4. Kuveler's uterus.
- 5. Violation of placental abruption.
- 6. Uterine bleeding in sequential and early postpartum period.
- 7. Hypotonic bleeding.
- 8. Coagulopathic bleeding (amniotic fluid embolism and other causes).
- 9. Hemorrhagic shock, terminal conditions in obstetrics.
- 10. Disseminated intravascular coagulation syndrome.
- 11. Intensive care and resuscitation for bleeding in obstetrics.
- 12. Modern approaches to infusion-transfusion and intensive care and resuscitation for bleeding in obstetrics from the standpoint of evidence-based medicine.

# III. Practical experience:

- 1. Determine the allowable blood loss.
- 2. Assess the amount of blood loss and the severity of the shock.
- 3. To make the program of infusion transfusion therapy depending on blood loss.
- 4. Carry out differential diagnosis of different types of bleeding in the early postpartum period.
- 5. To make a diagnostic algorithm for each type of obstetrics bleeding.
- 6. To make algorithm of a mechanical stop of each kind of obstetric bleeding.
- 7. Perform the main stages of surgical cessation of obstetric bleeding.
- 8. Provide resuscitation care in case of shock.

# IV. Solving situational problems.

## Tasks for self-training and self-correction of the initial level of skills

1. Placenta previa is when the placenta:

A. Partially or completely covers the inner eye of the cervix.

- B. Attached to the bottom of the uterus.
- C. Germinates the mucous membrane of the uterus.
- D. Located on the side walls of the uterus.
- E. Located on the anterior or posterior wall of the uterus.
- 2. In which type of placenta previa delivery is performed only by cesarean section:
- A. Central
- V. Craiova
- S. Bokov
- D. Low location
- E. In none of these.
- 3. Where to perform a vaginal examination in a pregnant woman with suspected placenta previa:
- A. In the delivery room
- B. In the deployed operating room
- C. In the reception department of the maternity hospital
- D. In the antenatal ward
- E. In the observation room.
- 4. A 29-year-old woman was taken to the maternity hospital with a pregnancy of 39-40 weeks due to vaginal bleeding and acute abdominal pain that appeared an hour ago. Blood pressure 180/100 mm Hg The fetal heartbeat is not listened to. At vaginal examination: bloody discharge with blood clots. The neck is smoothed, the disclosure is complete. The amniotic sac is intact, constantly tense, the head is presented a large segment to the entrance to the small pelvis; placental tissue is not defined. What complication arose in childbirth?
- A. Complete presentation of the placenta
- B. Premature detachment of the normally located placenta
- C. Rupture of the cervix
- D. Rupture of the varicose node in the vagina
- E. Rupture of the uterine body.
- 5. A pregnant woman was re-admitted to the maternity ward due to significant bloody vaginal discharge. During the examination in the mirrors: the walls of the vagina and cervix without pathological changes. During the vaginal examination: the cervix is shortened, the uterine eye is open to 3 cm, above the inner eye is palpated spongy tissue, next to it are defined shells. What pathology is it about?

## A. Partial presentation of the placenta

- B. Premature detachment of the normally located placenta
- C. Complete presentation of the placenta
- D. Rupture of the marginal sinus
- E. Embolism of amniotic fluid
- 6. Pregnant 28 years old, gestational age 39-40 weeks, taken by ambulance to the maternity hospital with complaints of significant bloody discharge from the vagina, which appeared in the evening against the background of general rest. According to blood loss 250-300 ml. Objective: pale skin and mucous membranes. Blood pressure 90/60 mm Hg, pulse 98 beats / min, rhythmic, filamentous. Generic activity is absent. The body of the uterus is in a state of normotonus. The position of the fetus is transverse, the heartbeat is deaf, 98 beats / min, rhythmic, the noise of placental vessels is heard above the womb. At vaginal research: a neck of a uterus 2 cm long, the cervical channel passes 1 cross finger, spongy fabric is defined throughout. Which method of delivery should be chosen?

#### A. Cesarean section

- B. Amniotomy
- C. turning the fetus on the leg
- D. In the manipulative
- E. Childbirth through the natural genital tract.
- 7. A 28-year-old pregnant woman at 32 weeks of gestation with severe preeclampsia developed severe abdominal pain and dark bloody discharge from the genital tract. The uterus is asymmetric, in increased tone, painful, the heartbeat of the fetus is deaf. What complication can you think of?

## A. Premature detachment of the placenta

- B. The threat of premature birth
- C. Placenta previa
- D. Acute pancreatitis of a pregnant woman
- E. Threat of uterine rupture.
- 8. A pregnant woman was admitted to the obstetric hospital at 36 weeks of pregnancy. Suffers from chronic arterial hypertension. Complaints of headache, aching pain in the lower abdomen, bloody discharge from the genital tract. Objectively: AT-180/100, uterus in hypertension, up to 300 ml of dark blood was released from the vagina. The fetal heartbeat is not heard. What is the probable diagnosis?

#### A. Premature detachment of the placenta

- B. Placenta previa
- C. The threat of premature birth
- D. Rupture of the uterus
- E. Embolism of amniotic fluid.
- 9. A 20-year-old pregnant woman was taken to the maternity hospital with complaints of lower abdominal pain, bloody discharge from the genital tract. The gestation period is 36 weeks. Condition of moderate severity. AT 120/80 mm Hg Fetal heart rate 140 beats. sec., rhythmic. During the vaginal examination, the cervix is formed, the eye is closed. Vaginal discharge is bloody, bright, up to 200 ml. The head of the fetus is high above the entrance to the small pelvis. Through the anterior vault of the vagina is determined by the pasta. What is the probable diagnosis?

## A. Placenta previa

- B. Premature detachment of the placenta
- C. Rupture of the uterus
- D. Threat of premature birth
- E. Abortion in progress
- 10. Re-pregnant. The bleeding started immediately after the contractions. Fetal heart rate 100-110 / min., Deaf. Vaginal examination: the cervix is shortened, open to 4 cm. The placental tissue is determined throughout. Diagnosis?

## A. Central placenta previa.

- B. Premature detachment of the normally located placenta.
- C. Threatening uterine rupture.
- D. Lateral placenta previa.
- E. Marginal placenta previa.
- 11. Within 30 minutes after birth, the condition of the mother is good: the uterus is dense, spherical, its bottom at the level of the navel, no bleeding. The clamp, applied to the umbilical cord, is at the previous level, when you take a deep breath and press the edge of the palm over the symphysis, the umbilical cord is drawn into the vagina. There is no bloody discharge from the genital tract. What will be the doctor's next tactics?
- A. Intravenously administer oxytocin
- B. Apply the method of Abuladze
- C. Apply the method of Krede-Lazarevich
- D. Carry out curettage of the uterine cavity

## E. Carry out manual separation of the placenta.

- 12. Examination of the placenta, which was just born, revealed the presence of a defect measuring 2x3 cm. There is no bleeding. Which tactic is the most justified?
- A. Manual revision of the uterine cavity
- B. Prescribing uterotonic drugs
- C. External massage of the uterus
- D. Supervision of the mother
- E. Instrumental revision of the uterine cavity.
- 13. N.'s mother, with a burdened obstetric and gynecological anamnesis, gave birth to a full-term baby girl weighing 3,100 grams. There are no signs of excretion and bloody discharge from the genital tract. Uterus of moderate density. It's been 30 minutes. What pathology can you think of?

## A. True placental augmentation.

- B. Placenta previa.
- C. Clamping of the placenta.
- D. Hypotension of the uterus.
- E. Rupture of the uterus.
- 14. Maternity N., general condition is satisfactory. She gave birth to a full-term baby girl, weighing 3100 grams. There are no signs of placental abruption, bloody discharge from the genital tract 150 ml. Uterus of moderate density. What pathology of placental attachment is probable?

## A. Partial tight attachment of the placenta.

- B. Complete tight attachment of the placenta.
- C. Hypertonia of the uterus.
- D. Placenta previa.
- E. Rupture of the uterus.
- 15. In a mother aged 25 years in the third period of childbirth, manure with a defect of placental tissue was separated and isolated. The hemodynamics of the mother is stable. Moderate bleeding from the birth canal. Examination of the birth canal did not reveal any injuries. Doctor's tactics?

#### A. Manual revision of the uterus, followed by the introduction of uterotonics.

- B. Intravenous administration of uterotonics.
- C. Introduction into the posterior arch of the vagina of a tampon with ether.
- D. Overlay terminals on the parameters.

- E. Blood transfusion.
- 16. In a woman in labor 24 years, after the birth of the placenta continues to bleed from the cervical canal. Examination of the birth canal revealed no injuries to the cervix or vaginal mucosa. Examination of the placenta on the amniotic sac revealed a ruptured vessel. What pathology can you think of?
- A. Delay in the uterine cavity of an additional lobe of the placenta.
- B. Delay of amniotic membranes in the uterine cavity.
- C. Rupture of the umbilical vessel.
- D. Coagulopathic bleeding.
- E. Hypotonic bleeding.
- 17. After a normal birth, the mother is left in the delivery room for 2 hours under the active supervision of medical staff. In order to prevent what complications are monitoring the condition of the mother?

## A. Bleeding in the postpartum period

- B. Increasing blood pressure
- C. Hyperthermia
- D. Attack by a court
- E. Psycho-emotional arousal.
- 18. In a 22-year-old woman weighing 80 kg 10 minutes after the birth of a fetus weighing 4100 g and 53 cm long, manure and 100 ml of blood were excreted on their own. The uterus shrank, after 10 minutes the bleeding reappeared, the blood loss reached 300 ml. What blood loss is considered acceptable in this mother?
- A. 1000 ml
- **B.** 400 ml
- C. 500 ml
- D. 650 ml
- E. 300 ml.
- 19. What is not characteristic of hemorrhagic shock?
- A. Tachycardia.
- B. Hypotension.
- C. Increasing the CVT.
- D. Cyanosis.

E. Oliguria.
20. "Shock index" is the ratio:
A. Pulse / systolic blood pressure.
B. Systolic blood pressure / pulse.
C. Pulse / diastolic blood pressure.
D. Diastolic blood pressure / pulse.
E. Systolic blood pressure / Diastolic blood pressure
21. Specify the "shock index" that corresponds to the most serious condition of the patient:
A. 0.5.
B. 0.8.
C. 1.0.
D. 1.5.
E. 0.3
22. The ratio of the volume of blood cells and plasma is judged by:
A. The number of erythrocytes in 1 ml of blood.
B. Cardiac index.
C. Hematocrit.
D. Platelet counts.
E. The number of leukocytes.
23. At postpartum blood loss of 1000 ml it is established: BP of 90/70 mm of mercury. Art., pulse 120 in 1 min, pallor, cold sweat, oliguria. Diagnosis:
A. Hemorrhagic shock of the I degree.
B. Hemorrhagic shock of the II degree.
C. Hemorrhagic shock of W degree.
D. Hemorrhagic shock of IV degree.
24. Components used for sampling for individual compatibility:
A. Donor blood and recipient serum.

C. Donor plasma and recipient blood. D. Blood of the recipient and blood of the donor. E. Recipient's blood and donor serum. 25. Which of the following infusion solutions belong to the group of dextrans? A. Ringer's solution. B. Gelatinol. C.5% glucose solution D. Rheopolyglucin. E. Albumin 26. Which drug do you prefer in transfusion-hemostatic therapy of DIC syndrome? A. Fresh frozen plasma. B. Solution of albumin. C. Dry plasma. D. Cryoprecipitate E. Rheopolyglucin 27. Hypotonic bleeding in the amount of 30% of BCC occurred in the mother of N. in the early postpartum period, which was stopped by a conservative method. Hemorrhagic shock of the II century developed. Your tactics? A. Infusion and transfusion therapy B. Observations in dynamics C. Uterine extirpation D. Supravalvular amputation of the uterus E. Direct blood transfusion

28. In a woman who underwent a cesarean section due to detachment of the normally located placenta and hemorrhagic shock, blood transfusion was performed during the operation. After the operation, urine is removed through the catheter - "cherry" color. What research should be performed immediately to correctly diagnose a complication that has occurred?

## A. Examine the blood for hemolysis

B. Plasma recipient and donor serum.

- B. Perform urine analysis according to Nechiporenko
- C. Perform a cystoscopy
- D. Perform excretory urography
- E. Ultrasound examination of the kidneys

# **Recommended reading:**

- 1. Obstetrics and gynecology: textbook: in 2 books. Book 1 Obstetrics: Obstetrics / BM Ventskivsky, MO Shcherbina, VI Grishchenko [etc.]; 4th ed., Ed. К.: Медицина, 2020. 424 р.
- 2. Obstetrics and gynecology: textbook: in 2 books. Book 2 Gynecology / VB Ventskivsky, MO Shcherbyna, VI Grishchenko [etc.]; 3rd ed., Ed. К.: Медицина,

2020. - 376 p.

- 3. Workshop on obstetrics / II Bachynska K .: "Medicine", 2021. 104 p.
- 4. Workshop on phantom obstetrics / P. Yavirsky, V. Shatylo, T. Yavirska K .: "Medicine", 2017-144 p.
- 5. Workshop on gynecology / A.M. Vavilova K .: "Medicine", 2019. 96 p.
- 6. Clinical obstetrics and gynecology / A. Brian, Magovan, Philip Ouden, Andrew

Thomson; scientific editor of the translation by M. Shcherbyna - K .: "Medicine", 2021. - 512 p.

7. Oxford Texbook of Obstetrics and Gynecology / Sabaratram Arulkumaran, Wiliam Ledgar, Lynette Denny, Stergious Doumouchtsis - Oxford University Press, 2020, 928 p.

Author: as. NP Sukhostovets, as. T.V. Kopytsya