

“Затверджено“  
на методичній нараді кафедри акушерства,  
гінекології та планування сім’ї  
медичного інституту СумДУ  
протокол № \_\_\_\_\_  
від “ \_\_\_\_\_ “ \_\_\_\_\_ 2021р.

### **Methodical development**

independent work of a student in the discipline "Obstetrics"

**Topic:** Physiology of childbirth. Anesthesia of childbirth.

Number of hours - 3.

**Purpose:** to study the precursors of childbirth, the preliminary period, to define the concept of biological readiness for childbirth, on the basis of obstetric studies of the mother to make a plan of childbirth, to know the clinical course of I and II periods of childbirth, to study methods of analgesia.

**The student must:** assess the time of ejaculation and the characteristics of amniotic fluid, have the peculiarities of childbirth, know the basic principles of partogram, determine and assess the fetal condition (auscultatory and hardware methods).

#### **Class organization:**

##### **I. Testing: 20 tests.**

##### **II. Key issues:**

1. What is the biomechanism of childbirth?
2. What is the leading point?
3. What is the leading point in the anterior view of the occipital presentation?
4. What is the first moment of the biomechanism of childbirth in the anterior view of the occipital presentation?
5. What is the second moment of the biomechanism of childbirth in the anterior view of the occipital presentation?
6. What is the third moment of the biomechanism of childbirth in the anterior view of the occipital presentation?
7. What is the fourth moment of the biomechanism of childbirth in the anterior view of the occipital presentation?
8. What is the biomechanism of the birth of coat hangers?
9. What are the theories of causality of individual aspects of the biomechanism of childbirth?
10. What are the features of the biomechanism of childbirth in the posterior view of the occipital presentation?
11. What factors contribute to the formation of the posterior view of the occipital presentation?
12. What are the features of the clinical course of childbirth with posterior occipital presentation?
13. What are the periods of childbirth?
14. What are the objective signs of labor and its effectiveness in the first period of childbirth?

15. What are the features of the mechanism of opening the cervix in women giving birth for the first time and in women giving birth again?
16. What are the different phases in the first period of childbirth?
17. What is the advantage of the free position of the mother during childbirth?
18. What are the features of the first period of childbirth?
19. How is the degree of cervical dilatation determined?
20. What is the frequency of vaginal examinations required in the first period of childbirth, what is it justified?
21. What are the indications for internal obstetric examination?
22. What objective information should be obtained during a vaginal examination in the first period of childbirth?
23. How to determine premature, early, timely and delayed discharge of amniotic fluid?
24. What are the modern principles and methods of monitoring the condition of the fetus during childbirth?
25. What are the modern principles and methods of monitoring the condition of the mother?
26. What is a partogram?
27. What characterizes the II period of childbirth, its maximum allowable duration?
28. What are the objective signs of labor and its effectiveness in the II period of childbirth?
29. What are the features of the II period of childbirth?
30. How to determine the dynamics of the advancement of the fetal head?
31. What is the maximum allowable duration of the head in one plane of the pelvis, what is it justified?

### **III. Practical experience:**

1. Determine the term of pregnancy and the expected date of birth.
2. Formulate a preliminary diagnosis and determine the plan of physiological childbirth.
3. Assess the quality of labor depending on the phase and period of childbirth.
4. Leopold's techniques to determine the position, position and presentation of the fetus.
5. Listen and evaluate the nature of the heart contractions of the fetus.
6. Choose a position for the mother in the I period of childbirth.
7. Assess the nature of childbirth on the basis of partogram.
8. Take measures for non-drug analgesia of childbirth.
9. Determine the indications for medical analgesia of childbirth.
10. Demonstrate on the simulator the biomechanism of childbirth with anterior and posterior occipital presentation.

11. To determine the beginning of the second period of childbirth, to assess the quality of strong labor.
12. Perform manual obstetric care for occipital presentation (phantom).
13. Demonstrate active tactics of the III period of childbirth.
14. Demonstrate the expected tactics of the III period of childbirth.
15. Evaluate the manure and determine its integrity (on the phantom).
16. Determine blood loss in childbirth.
17. Assess the condition of the newborn on the Apgar scale.
18. Carry out the primary toilet of the newborn in accordance with the principles of the "heat chain" (on the phantom).

#### **IV. Solving situational tasks.**

1. Pregnant 24 years, first pregnancy, and childbirth. Regular labor began. At vaginal research: the cervix is smoothed, opening is 4 cm, the amniotic sac is whole, the head of a fruit is pressed to an entrance to a small pelvis. Arrow-shaped suture in transverse size, triangular tendril in the center of the pelvis, facing left. What is the moment of the biomechanism of childbirth?

##### **A And the moment of the biomechanism of childbirth**

- B II moment of the biomechanism of childbirth
- C III moment of the biomechanism of childbirth
- D IV moment of the biomechanism of childbirth
- E V moment of the biomechanism of childbirth

2. At external obstetric research of the mother with the full-term pregnancy the longitudinal position of a fruit, the main presentation is diagnosed. On vaginal examination: the cervix is smoothed, the opening is 8 cm, the sagittal suture is in the left oblique size, a large band on the right side of the womb. To diagnose?

##### **A 1 position, rear view, anterior head presentation.**

- B 1 position, posterior view, occipital presentation.
- C 2 position, anterior view, occipital presentation.
- D 1 position, posterior view, frontal presentation.
- E 1 position, rear view, facial presentation.

3. Maternity 38 years, the first urgent birth. During the examination in the delivery room: the circumference of the abdomen 110 cm, the height of the fundus of the uterus - 40 cm. The head of the fetus is erupted. The skin of the vulvar ring is pale, slightly pliable. Your previous diagnosis?

**A Threat of perineal rupture.**

- B Threat of uterine rupture.
- C Threat of symphysis rupture.
- D Weakness of efforts.
- E Excessive labor.

4. Childbirth in a row. The second period lasts 1 hour, the head of the fetus is cut. The fetal heartbeat is rhythmic, deaf, 150 beats / min. The gap is high. What to do?

**A Perineotomy.**

- B Cesarean section.
- C Fetus-destroying operation.
- D Introduction of uterotonics.
- E Expectative tactics.

5. A 28-year-old woman with a normal pelvis and full-term pregnancy, the first period of childbirth lasted 10 hours, the second 30 minutes. Signs of manure separation appeared 15 minutes after birth. Blood loss is 250 ml. What to do?

**A External methods of manure separation.**

- B Manual separation of the placenta and placenta
- C Expectative tactics.
- D Introduction of uterotonics.
- E Introduction of antispasmodics.

6. The newborn's head has a dolichocephalic shape, extended from front to back. When examining the head on the back of the head in the middle between the large and small ones, the cell is determined by a birth tumor. At what presentation of the head of the fetus were these births?

**A With posterior occipital presentation.**

- B In the anterior view of the occipital presentation.
- C At the anterior-tion, it is presented.
- D In frontal presentation.
- E In frontal presentation.

7. At vaginal research in 6 hours after the beginning of childbirth it is defined: opening of a neck of uterus to 5 cm, the head of a fruit pressed to an entrance to a small pelvis is presented. Arrow-shaped seam in the transverse size of the entrance to the small pelvis, small volume, the lobe on the left, side. What moment of the biomechanism of childbirth is in question?

**A Bending of the head.**

B Extension of the head.

C Internal rotation of the head.

D Additional bending of the head.

E Internal rotation of the hangers.

8. At external research the head of a fruit is not defined. The amniotic fluid departed. On internal examination: the cervix is smoothed, the head of the fetus is located below the lower edge of the womb, coccyx and buttocks. Full eye opening, arrow-shaped suture in a straight size, a small tendril under the womb, when trying to emerge from the genital slit. What is the plane of the pelvis occupied by the fetal head?

**A Plane of exit from the pelvis.**

B Pressed to the entrance to the small pelvis.

C The plane of entry into the small pelvis.

D The plane of the wide part of the pelvic cavity.

E The plane of the narrow part of the pelvic cavity.

9. After the birth of the baby, in the third period of childbirth, the doctor when pressing the edge of the palm over the womb noted the involvement of the umbilical cord in the vagina. What sign did the doctor use to determine the separation of the placenta?

**A Chukalov-Kustner.**

B Alfeld.

C Schroeder.

D Krede-Lazarevich.

E Gentera.

10. In a woman in labor weighing 80 kg, the third timely delivery. A boy was born, weighing 4,200, 50 cm long. Total blood loss - 450.0 ml. The physiological volume of blood loss in the given parturient is:

**A 400.0ml.**

B 350.0ml.

C 300.0ml.

D 450.0ml.

E 500.0ml.

### **B. Tasks for control of students' knowledge**

1. The first-born woman was delivered by ambulance within 39-40 weeks with complaints of contractions lasting up to 20 seconds in 6-7 minutes, amniotic fluid was not spilled. On examination: satisfactory condition. The skin and visible mucous membranes are pale pink. Pelvic dimensions: 25-28-30-21 cm. Solovyov index 15 cm. From the internal organs without visible pathology. Blood pressure 120/80 mm Hg The abdomen is enlarged by the pregnant uterus. VDM 38 cm, coolant 100 cm. The position of the fetus is longitudinal, the head is pressed to the entrance to the small pelvis. Fetal heart rate 146 beats / min. Physiological dispatches are not disturbed. When examined in mirrors: cervix without epithelial defects, mucous secretions, moderate. Bimanual: the cervix is centered, shortened to 1 cm, the edges of the cervix are soft, the opening of the uterine eye is 2 cm. The amniotic sac is intact. There are no exostoses in the pelvis. The promontory is not reachable.

*Question:*

1. Formulate a preliminary diagnosis.
2. Determine the estimated weight of the fetus.
3. Evaluate the heartbeat of the fetus.
4. Formulate a birth plan.

*Answer standard:*

1. Pregnancy I 39-40 weeks. The first period is latent phase I of urgent childbirth.
2. Estimated fruit weight  $3800 \pm 200$  gr.
3. The fetal heartbeat does not suffer.
4. Childbirth should be conducted through the natural birth canal with active management of the III period.

2. A 26-year-old woman with complaints of contractions lasting 35-40 seconds was taken to the maternity hospital by ambulance in 3-4 minutes. Current pregnancy 3rd, term of 40 weeks. History of 2 births. The first day of the last menstruation on May 5. On examination: satisfactory condition. The skin and visible mucous membranes are pale pink. Pelvic dimensions: 25-28-31-21 cm. Solovyov index 15 cm. From the internal organs without visible pathology. Blood pressure 120/80 mm Hg The abdomen is enlarged by the pregnant uterus in the form of a regular ovoid. VDM 39 cm, coolant 98 cm. The position of the fetus is longitudinal, the head is pressed to the entrance to the small pelvis. Fetal heart rate 158 beats / min. Physiological dispatches are not disturbed. When examined in mirrors: cervix without epithelial defects, mucous secretions, moderate. Bimanual: the cervix is smoothed, the edges of the cervix are soft, the opening of the uterine eye is 6 cm. On examination, light amniotic fluid spilled in moderation. There are no exostoses in the pelvis. The promontory is not reachable.

*Question:*

1. Formulate a preliminary diagnosis.
2. Determine the expected date of birth.
3. Evaluate the heartbeat of the fetus.
4. Determine the timeliness of rupture of the amniotic sac.
5. Formulate a birth plan.

*Answer standard:*

1. Pregnancy III 40 weeks. The first period is active phase III urgent childbirth.
2. Estimated date of birth February 12-19.
3. The fetal heartbeat does not suffer.
4. Timely discharge of amniotic fluid.
5. Childbirth should be conducted through the natural birth canal with active management of the III period.

**Recommended reading:**

1. Obstetrics and gynecology: textbook: in 2 books. Book 1 Obstetrics: Obstetrics / ВМ Ventskivsky, МО Shcherbina, VI Grishchenko [etc.]; - 4th ed., Ed. - К.: Медицина, 2020. - 424 p.
2. Obstetrics and gynecology: textbook: in 2 books. Book 2 Gynecology / VB Ventskivsky, МО Shcherbyna, VI Grishchenko [etc.]; - 3rd ed., Ed. - К.: Медицина, 2020. - 376 p.
3. Workshop on obstetrics / II Bachynska - К .: "Medicine", 2021. - 104 p.
4. Workshop on phantom obstetrics / P. Yavirsky, V. Shatylo, T. Yavirska - К .: "Medicine", 2017-144 p.
5. Workshop on gynecology / A.M. Vavilova - К .: "Medicine", 2019. - 96 p.
6. Clinical obstetrics and gynecology / A. Brian, Magovan, Philip Ouden, Andrew Thomson; scientific editor of the translation by M. Shcherbyna - К .: "Medicine", 2021. - 512 p.
7. Oxford Textbook of Obstetrics and Gynecology / Sabaratnam Arulkumaran, Wiliam Ledger, Lynette Denny, Stergios Doumouchsis - Oxford University Press, 2020, 928 p.

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