

**MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY**

Faculty of international

Department of Obstetrics and Gynecology

 **APPROVED**
Vice-rector for scientific and pedagogical work
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**METHODICAL DEVELOPMENT FOR PRACTICAL LESSONS
FROM EDUCATIONAL DISCIPLINE**

Faculty of international, course IV

Educational discipline "Obstetrics and gynecology"

Practical lesson № 8. Topic: «Acute abdomen»

Approved:

Meeting of the Department of Obstetrics and Gynecology of Odesa National Medical University

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Practical lesson №8

Topic: "Acute" abdomen in gynecology"

Objective: teach to evaluate a patient with "acute" abdomen. Master the plan of examination of a patient with ectopic pregnancy. Master the skills of examination and treatment of patients with all diseases, including the term acute abdomen.

Basic concepts: Execution of the algorithm of actions at emergence of urgent conditions in gynecology.

Equipment: Professional algorithms, structural-logical schemes, tables, models, video materials, results of laboratory and instrumental researches, situational tasks, patients, case histories.

1. Organizational activities (greetings, checking the audience, announcing the topic, the purpose of the lesson, motivating students to study the topic). A clinical questioning of the activity of treatment-prophylactic establishments testifies that the most difficulty for the doctor are clinical situations, which demand urgent help. Most frequently, the discussion is, first of all, about saving a patient's life, therefore wrong or delayed actions, mistakes in the choice of tactics, methods and means of providing urgent help to pregnant women are serious and have some very tragic consequences. On the contrary, correct and prompt, rationally planned and cautious methods of conducting urgent help can not only save the patient's life, but also save her reproductive function.

The concept of "acute abdomen" unites a group of acute diseases of the abdominal cavity, different in etiology and character of clinical course. The diagnosis "acute abdomen" is not exact. It only displays the presence of disorder in the abdominal cavity, without indicating in which organ this process is occurring. The complex of symptoms of "acute abdomen" is given by a number of diseases not only the organs of the abdominal cavity, but also the thorax, for example myocardial infarction, spasm of the coronal arteries, aortal aneurysm, inflammation of the lower lobe of the lungs.

2. Control of basic knowledge (written work, written testing, online testing, face-to-face interview, etc.).

2.1. Requirements for theoretical readiness of students to perform practical classes.

Knowledge requirements:

- communication skills and clinical examination of the patient;
- ability to determine the list of necessary clinical, laboratory and instrumental studies and evaluate their results;
- ability to establish a preliminary and clinical diagnosis of the disease;
- ability to perform medical manipulations;
- ability to provide counseling treatment;
- ability to keep medical records.

List of didactic units:

- the right to collect medical history of the patient with "acute" abdomen.

- identify the complaint, describing the basics of the disease.
- determine, based on the history of the disease, these subjective and objective research features and characteristics needed to identify the causes that led to "acute" abdomen in gynecology.
- correctly interpret data of laboratory and instrumental methods.
- make a plan of inspection patient with "acute" abdomen.
- conduct a differential diagnosis of "acute" abdomen.
- install a diagnosis and plan treatment means the patient with "acute" abdomen.

2.2. Questions (test tasks, tasks, clinical situations) to test basic knowledge on the topic of the lesson.

- Extrauterine pregnancy: clinics, diagnostics, tactics of GP, emergency care.
- Ovarian apoplexy: clinics, diagnostics, tactics of GP, emergency care.
- Rupture of ovarian tumor capsule: clinics, diagnostics, GP tactics, emergency care.
- Torsion of tumor pedicle: clinics, diagnostics, GP tactics, emergency care.
- Rupture of purulent tuboovarian mass: clinics, diagnostics, GP tactics, emergency care.
- Blood supply disturbance in myomatous node: clinics, diagnostics, GP tactics, emergency care.
- Traumatic damage of genitals: clinics, diagnostics, GP tactics, emergency care.
- Preoperative preparation and postoperative care of gynecological patients, anesthesia during gynecological operations.
- Rehabilitation after gynecological operations.

Typical situational tasks:

1. Woman aged 26 years is delivered by ambulance with complaints on sudden pain in the lower abdomen, irradiating to leg and rectum, nausea, dizziness, dark bloody discharge from genital tract during one week, delay of menstruation by 4 weeks.

Skin is pale. The symptoms of peritoneum irritation are positive and are defined in the lower abdomen.

In specula: cyanosis of mucous of vagina and uterine cervix, bloody discharge.

Bimanual examination: uterus and appendages are not defined because of sharp morbidity; symptom of "floating uterus" is defined; posterior vaginal vault hangs out and is sharply painful. What diagnosis should be made?

Reply: Ectopic pregnancy.

2. Patient, 34 years old, arrived at the hospital with complaints on sharp pain in the lower abdomen, nausea, vomiting. 6 months ago gynecologist suspected presence of a cyst in her right ovary, but she refused from any further examination. Last menstruation was one month ago. The patient considers herself ill during the past 2 weeks. This spasmodic pain in the lower abdomen appeared for the first time. She did not have vertigo and did not address to the doctor.

Objectively: general condition is of moderate severity. Temperature - 37,7°C, pulse - 86 beats/min, BP - 130/90 mm Hg. Tongue is slightly coated,

abdomen is mildly swelled, symptom of Schetkin-Blumberg is positive in the lower abdomen.

Bimanual examination: sharp morbidity of shifting of the cervix; hard elastic painful formation, 4x5cm, is palpated on the right side. Left appendages are not defined. Vaginal vaults are deep; palpation of the right side is painful. Discharge is white, moderate.

What diagnosis should be made?

Reply: Torsion of the cyst of the right ovary. Pelvioperitonitis.

Typical test tasks:

1. A woman complains of sudden pain in the abdomen, which irradiate the anus, nausea, dizziness, dark bloody discharge from the genital tract during the week, delay menstruation for 4 weeks. Symptoms of peritoneal irritation positive. In the mirror, cyanosis of the mucous membranes of the vagina and cervix. In bimanual study notes symptom of "uterus floating" pain and bulging rear and right side of the vaults of the vagina. The most likely diagnosis?

- A. Acute appendicitis.
- B. apoplexy ovary.
- S. acute right-adenitis.
- D. tilting legs ovarian tumor.
- E. ectopic pregnancy.

2. The 24-year-old woman complains of bloody spotting, vaginal discharge and pain in the right iliac region. In the history of irregular menstrual cycle. Last menstruation 7 weeks ago. During bimanual examination the uterus is not enlarged, painless. Title chorionic gonadotropin 1000. Tactics doctor?

- A. diagnostic laparoscopy.
- B. Ultrasound pelvic organs.
- C. Kuldoskopiya.
- D. Re-definition CG 24 hours.
- E. Repeated studies of hCG in a week.

Correct answers: 1 - E; 2 - D.

3. Formation of professional skills, abilities (mastering skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

3.1. Content of tasks (tasks, clinical situations, etc.).

Interactive task:

Students of the group are divided into 3 subgroups of 4-5 people each. We work in women's consultation rooms with gynecological patients, we give tasks:

And the subgroup - to make a preliminary diagnosis.

Subgroup II - to make a plan for the management of a gynecological patient.

Subgroup III - assesses the correctness of the answer of subgroups I and II and makes adjustments.

Atypical situational tasks:

1.14 years old girl addressed doctor with complaints on absence of menstruation, monthly pains in abdomen. In anamnesis: childhood infections.

Objectively: skin and mucous membranes are pink. Pulse - 78 beats/min, BP - 100/60 mm Hg. Body temperature - 36,7°C.

On examination: breasts and genitals are developed properly; female type of hair growth in pubic area. Vaginal entrance is covered with cyanotic mucous membrane that protrudes slightly.

On rectal examination: uterus and appendages are without abnormalities, flexible formation (size 8x6 cm) is palpated in vagina.

What are the doctor's tactics?

Reply: Hospitalization of the girl to the gynecological department.

Surgical treatment.

2. Woman, 67 years old, addressed family doctor with complaints on profuse bleeding from genital tract during the past 3 months. Menopause since 10 years ago.

On speculum examination: no pathology was revealed.

Bimanual examination: body of the uterus is enlarged up to 4-5 weeks of pregnancy, dense, immobile, and painless on palpation; appendages are without pathological changes; vaginal vaults are deep and painful. Discharge is bloody, moderate.

What are the doctor's tactics?

Reply: Hospitalization of the woman to the gynecological department.

Surgical treatment. Hysterectomy with appendages.

Atypical test tasks:

1. Woman '17 worried about sharp pain below the abdomen. Notes the delay menstruation for 2 weeks. Sex life during the year. Guarded pregnancy interrupted sexual intercourse.

Objectively: pale. 36,60S body temperature, blood pressure 95/60 mm Hg, pulse 90 beats / min. If bimanual examination is defined slightly enlarged uterus, cervix tours painful appendages expressly konturuyutsya, rear arches vypnute. Discharge from the genital tract dark bloody miserable. The most informative method:

- A. Ultrasound of the pelvic organs.
- B. Complete blood.
- C. puncture the abdominal cavity through the posterior vaginal vault.
- D. colposcopy.
- E. Laparoscopy.

2. A woman worries acute abdominal pain, fever up to 38,0 ° C. Knows the presence of uterine fibroids 3 years. Symptoms of peritoneal irritation positive in the lower abdomen. WBC 10.2 T / L, erythrocyte sedimentation rate 28 mm / h. In bimanual study of uterine body increased to 8-9 weeks of pregnancy, on the front surface - dramatically painful myoma node size 4x4 cm, uterine appendages not changed. Ultrasound confirms that subserous myoma node. What is the most likely diagnosis?

- A. Internal endometriosis.
- B. tuboovarian tumor.
- C. Necrosis myoma node.
- D. Acute adnexitis.
- E. perimetritis.

Correct answers: 1 - E, 2 - C.

3.2. Recommendations (instructions) for performing tasks (professional algorithms, orientation maps for the formation of practical skills, etc.).

From gynecologic diseases, the picture of "acute abdomen"	The clinical picture
Extra-uterine pregnancy	<p>Acute beginning, which for some women is preceded by a delay in menstruation, pain in the lower stomach distributed to the rectum, subclavicular and supraclavicular areas, shoulder or scapula, is accompanied by nausea or vomiting, dizziness, to the point of loss of consciousness, sometimes diarrhea. The patient is frequently hindered, less often shows attributes of anxiety; the skin and mucous are pale, extremities are cold, rapid, superficial respiration. Tachycardia, weak-filling pulse, arterial pressure is reduced. Tongue is moist, not covered with a film. The stomach is a little bloated; tension of muscles of the abdominal wall is absent. During palpation – pain in the lower stomach, more on the affected side, also symptoms of irritation of the abdomen are expressed. During percussion - dullness in the stomach.</p> <p>During examination with the speculum: cyanosis and paleness of the mucous of the vaginas and exocervix. Bimanual examination (very painful) reveals a flattening or protrusion of the posterior or one of the lateral vaults. The uterus is easily shifted, as though it is "floating" in free liquid.</p> <p>If there is any doubt in the correctness of the diagnosis, a puncture of the abdominal cavity through the posterior vaginal vault is done.</p>
Ovarian apoplexy	<p>The pain attack is accompanied by weakness, loss of consciousness, nausea, sometimes vomiting, cold sweat, unconsciousness. During examination, pallor of the skin and</p>

	<p>mucous membranes, tachycardia with a normal body temperature are paid attention to. Depending on the volume of blood loss, the arterial pressure can decrease. The stomach remains soft, a little bloated. Tension of the muscles of the abdominal wall is absent. During palpation of the stomach, extended pain in the lower half of the stomach is found. Symptoms of irritation of the abdomen are expressed in different degrees. Percussion of the stomach can reveal the presence of free liquid in the abdominal cavity.</p> <p>During bimanual (rather painful) examination, the normal sizes of the uterus, sometimes – an enlarged painful spherical ovary are determined. During significant bleeding, overhanging and painful posterior and/or lateral vaginal vaults are found.</p>
Rupture of ovarian tumor capsule	<p>Start acute disease. Sharp pains in the stomach, sometimes with loss of consciousness. Breath of learning, can be shortness of breath. Pulse frequent, blood pressure can be reduced. Contact with the contents of the cyst or tumor in the abdominal cavity causing peritoneal irritation symptoms. In some cases, the capsules rupture accompanied by profuse bleeding from the ovary of vessels and the development of shock. The general condition of the patient moderately severe, severe or very severe. Bloating, sharply painful to palpation, anterior abdominal wall muscles are tense, Shchetkina-Blumberg positive symptom. The clinical picture is often similar to that in an ectopic pregnancy, occurring both on the type of tubal abortion, and the type of rupture of the fallopian tube, ovary apoplexy when, pelvioperitonit.</p>
Torsion of tumor pedicle	<p>The disease, as a rule, begins with</p>

	<p>strong pains in the lower stomach, which are accompanied by nausea and vomiting. The body temperature during the first hours of the disease remains normal; the leucocytic reaction is not expressed.</p> <p>The patient takes a compelled position in bed because of sharply occurring pain. During palpation – tension of the anterior abdomen wall, positive Blumberg's sign, intestinal paresis, delay of stool, less often - diarrhea. The body temperature can increase, rapid pulse, pale skin, cold sweat. During internal gynecologic examination a tumour is determined in the area of the uterine appendages; any attempt to shift it causes a sharp pain. Such patients demand urgent operative treatment.</p>
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Algorithm for performing practical skills.

Bimanual (vaginal) examination:

- 1) greet the patient;
- 2) identify the patient (name, age);
- 3) to inform the patient about the need for research;
- 4) explain to the patient how the study is conducted;
- 5) obtain permission to conduct research;
- 6) wash your hands;
- 7) wear inspection gloves;
- 8) with the first and second fingers of the left (right) hand to spread the labia majora, the middle finger of the "dominant" hand to place at the level of the posterior adhesion, gently press on it to open the entrance to the vagina;
- 9) carefully and slowly insert the middle finger, then the index finger into the vagina along the posterior wall to the vault and cervix, bring the fourth and fifth fingers to the palm, the thumb to the top;
- 10) determine the length of the vaginal part of the cervix in centimeters;
- 11) determine the consistency of the cervix (dense, soft);
- 12) determine the patency of the outer eye of the cervical canal (closed, passes the fingertip);
- 13) assess the pain of the cervical touch;
- 14) carefully place the second palm on the abdomen (above the symphysis) and press moderately to determine the bottom of the uterine body;
- 15) bring the body of the uterus between two hands and determine:
 - position of the uterus relative to the cervix (anteflexio, retroflexio);

- body size of the uterus (normal, reduced, enlarged);
- consistency of the uterine body (dense-elastic, soft, compacted);
- motility of the uterine body (relatively mobile, limited mobility);
- sensitivity to palpation (painful, painless);

16) place the fingers in the bottom of the right lateral arch and using both hands to palpate the right vaginal arch and the right appendages of the uterus, determine their size, mobility and pain;

17) place the fingers in the bottom of the left lateral arch and using both hands to palpate the left vaginal arch and the left appendages of the uterus, determine their size, mobility and pain;

18) determine the capacity of the vaginal vaults;

19) inform the patient about the results of the study;

20) thank the patient;

21) remove inspection gloves;

22) wash your hands.

Clinical examination of the mammary glands:

1) greet the patient;

2) identify the patient (name, age);

3) to inform the patient about the need for research;

4) explain to the patient how the study is conducted;

5) obtain permission to conduct research;

6) wash your hands;

7) wear inspection gloves;

8) examine the mammary glands, assess their shape, skin color, nipples, areas around the nipple (asymmetry, retraction, etc.);

1) examine the tissue of the mammary glands clockwise or in quadrants and determine its density, homogeneity, sensitivity, presence / absence of bulky tumors;

2) at detection of a new growth to define its form, the sizes, a consistence, borders of formation, mobility, a parity with fabric of a mammary gland, morbidity;

3) palpation of lymph nodes in the supraclavicular, subclavian and axillary areas;

4) determine the presence of pathological secretions from the mammary glands;

5) inform the patient about the results of the study;

6) thank the patient;

7) remove inspection gloves;

8) wash your hands.

3.3. Requirements for the results of work, including before registration.

- Evaluate the patient.
- Choose methods of diagnosis and treatment of infertile women depending on the cause.
- Analysis and discussion of the results of the patient's examination.
- Multimedia presentation on the topic of the lesson (review of literature using modern sources; videos, etc.).

3.4. Control materials for the final stage of the lesson: tasks, tasks, tests, etc.

Atypical situational task:

Woman, 67 years old, addressed family doctor with complaints on profuse bleeding from genital tract during the past 3 months. Menopause since 10 years ago.

On speculum examination: no pathology was revealed.

Bimanual examination: body of the uterus is enlarged up to 4-5 weeks of pregnancy, dense, immobile, and painless on palpation; appendages are without pathological changes; vaginal vaults are deep and painful. Discharge is bloody, moderate. What is the doctor's advice in this case?

Reply: Surgical treatment. Hysterectomy with appendages.

Test tasks STEP-2:

1. (2019) A woman worries acute abdominal pain, fever up to 38,0 ° C. Knows the presence of uterine fibroids 3 years. Symptoms of peritoneal irritation positive in the lower abdomen. WBC 10.2 T / L, erythrocyte sedimentation rate 28 mm / h. In bimanual study of uterine body increased to 8-9 weeks of pregnancy, on the front surface - dramatically painful myoma node size 4x4 cm, uterine appendages not changed. Ultrasound confirms that subserous myoma node. What is the most likely diagnosis?

- A. Internal endometriosis.
- B. tuboovarian tumor.
- + C. necrosis myoma node.
- D. acute adnexitis.
- E. perimetritis.

2. (2008) A woman complaining of abdominal pain that irradiates to the anus, dizziness, occurring after coitus. In the history of inflammation of the uterus 7 years. 15-day menstrual cycle. Skin pale, soft abdomen, painful, positive symptoms of peritoneal irritation. Pulse 110 beats / min. If bimanual examination defined by increased spherical, painful right ovary, painful back and right lateral vaginal vault. No bleeding. Probable cause "acute abdomen":

- A. ovarian tumors with malnutrition.
- + B. apoplexy ovary.
- C. ectopic pregnancy, which was interrupted by the type of tubal abortion.
- D. What interrupted the type of pipe rupture, ectopic pregnancy.
- E. exacerbation of chronic adnexitis.

4. Summing up (criteria for evaluating learning outcomes).

Current control: oral examination, testing, assessment of practical skills, solving situational clinical problems, assessment of activity in the classroom, etc.

- ***The structure of the current assessment in the practical lesson:***
- 1. Assessment of theoretical knowledge on the topic of the lesson:
 - methods: survey, solution of situational clinical problem;
 - maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.
- 2. Assessment of practical skills and manipulations on the topic of the lesson:
 - methods: assessment of the correctness of practical skills;
 - maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2

1. Evaluation of work with the patient on the topic of the lesson:

- methods: assessment of: a) communication skills of communication with the patient, b) the correctness of the appointment and evaluation of laboratory and instrumental studies, c) compliance with the algorithm for differential diagnosis d) justification of clinical diagnosis, e) treatment plan;
- maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

Criteria for current assessment in the practical lesson:

«5»	«The student is fluent in the material, takes an active part in the discussion and solution of the situational clinical problem, confidently demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental studies, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
«4»	«The student is well versed in the material, participates in the discussion and solution of situational clinical problems, demonstrates practical skills during the examination of the patient and interpretation of clinical, laboratory and instrumental studies with some errors, expresses his opinion on the topic, demonstrates clinical thinking.
«3»	«The student does not have enough material, insecurely participates in the discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of the patient and interpretation of clinical, laboratory and instrumental studies with significant errors.
«2»	«The student does not have the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental studies.

LIST OF RECOMMENDED TRAINING AND METHODOLOGICAL LITERATURE IN OBSTETRICS AND GYNECOLOGY

1. Basic

1. Gynecology: a textbook (edited by BM Ventskivsky, GK Stepankovskaya, ME Yarotsky) .- K .: VSV Medicine, 2012.- 352 p.
2. Zaporozhan VM, Chaika VK, Markin LB Obstetrics and Gynecology (in 4 volumes): national textbook: 2013
3. Gynecology: a textbook in English (edit by I.B. Ventskivska) .- K .: Medicine, 2010.- 160 p.
4. Zaporozhan VM Operative gynecology: a textbook. - Odessa: Odessa Medical University, 2006. - 292 p.
5. Methods of contraception according to periods of life: a textbook.- K., 2013.- 255 p.
6. SM Pashchenko, GI Reznichenko, MA Voloshin Diagnosis and treatment of patients with dyshormonal breast diseases: Zaporizhzhya: Prosvita, 2011.-152 p.
7. Modern aspects of family planning: a textbook.- K., 2012.-307p.

8. Dubossarskaya ZM, Dubossarskaya Yu.A. Reproductive endocrinology: a training manual. - D.: Lyra LTD, 2008. - 416 p.

9. Pregnancy, Childbirth, Postpartum and Newborn Care: A Guide to Essential Practice. WHO, Geneva, 2006.

10. Existing "Clinical Protocols" approved by the order of the Ministry of Health of Ukraine on obstetrics and gynecology

2. Methodical

1. Family Planning. Tutorial // Kyiv, 2016. - 444p.

2. Miller VE Methodical bases of preparation and carrying out of employment in higher medical educational establishments / VE Mileryan. - K., 2007. - 120p.

3. Scientific

1. Dutta, Durlav Chandra. D. C. Dutta's Textbook of Gynecology including Contraception / D.C. Dutta; ed/ Hiralal Konar. – 7th.ed. – New Delhi: Jaypee Brothers Medical Publishers, 2016. – XX, 574 p.

2. Khvorostukhina SA Sexual infections in women. - 2008. - 126 p.

Online sources for training:

1. <https://www.cochrane.org/>

2. <https://www.ebcog.org/>

3. <https://www.acog.org/>

4. <https://www.uptodate.com>

5. <https://online.lexi.com/>

6. <https://www.ncbi.nlm.nih.gov/>

7. <https://pubmed.ncbi.nlm.nih.gov/>

8. <https://www.thelancet.com/>

9. <https://www.rcog.org.uk/>

10. <https://www.npwh.org/>