MINISTRY OF HEALTH OF UKRAINE

ODESA NATIONAL MEDICAL UNIVERSITY

Faculty of dentistry
Department of obstetrics and gynecology

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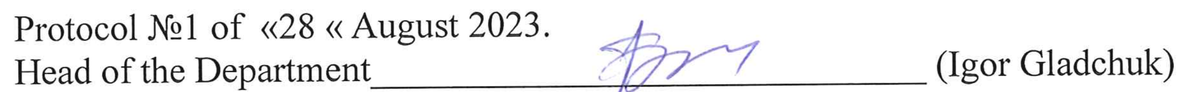
September 1, 2023 p.

METHODOLOGICAL DEVELOPMENT OF A PRACTICAL LESSON

Course IV. Faculty of dentistry
Academic discipline "Obstetrics and gynecology
Practical lesson №4. Topic: "Acute abdomen" in gynecology"

Odesa
2023-2024

Approved:
At the meeting of the Department of Obstetrics and Gynecology
Odesa National Medical University



Protocol №1 of «28 « August 2023.
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Practical session №4

Topic: "Acute abdomen" in gynecology

Objectives: To acquaint, deepen and systematize knowledge on the topic of the practical session (ectopic pregnancy, ovarian apoplexy, differential diagnosis of "acute abdomen" in gynecology). Knowledge of the anatomical and physiological processes occurring in the body of a woman with gynecological problems is quite relevant and aimed at preserving the patient's life.

Basic concepts: Ectopic pregnancy, ovarian apoplexy, clinic, diagnosis, management tactics. Emergency care. Preoperative preparation and postoperative management of gynecological patients. Rehabilitation after gynecological interventions.

Equipment: Professional algorithms, structural and logical diagrams, tables, models, videos, results of laboratory and instrumental studies, situational tasks, patients, medical histories.

1. Organizational measures (greetings, checking the attendees, announcing the topic, the purpose 1of the lesson, motivating higher education students to study the topic).

Higher education students need to treat women with responsibility and consistency in their work, sensitivity and tolerance. The clinical experience of healthcare facilities shows that the most difficult situations for a doctor are those requiring emergency care. Correct and timely emergency care, rationally planned and carried out using gentle methods, can not only save a patient's life, but also preserve her reproductive function. To teach the rules of professional examination, internal obstetric examination and recommendations for appropriate external obstetric care.

To teach the student responsibility and consistency in work, sensitivity and tolerance to a pregnant woman.

To teach the student logical clinical thinking and new diagnostic methods.

2. Control of the reference level of knowledge (written work, written testing, online testing, frontal surveys, etc.)

- Requirements for the theoretical readiness of higher education students to perform practical classes.

Knowledge requirements:

- have communication skills and clinical examination of the patient;
- evaluate information on the diagnosis using a standard procedure, based on the results of laboratory and instrumental studies;
- determine the list of necessary clinical, laboratory, instrumental and instrumental studies and evaluate their results;
- Identify the leading clinical symptom or syndrome and make a preliminary diagnosis, make differential diagnosis, determine clinical diagnosis of the disease;
- determine the principles of treatment of diseases, the necessary mode of work and rest, the nature of nutrition;
- diagnose emergency conditions;
- determine the tactics and provide emergency medical care;
- perform medical manipulations;
- have specialized knowledge of the structure of the female body, its organs and systems;
- Maintain medical records. ability to collect medical information about the patient and analyses clinical data.

List of didactic units:

-Ectopic pregnancy: clinic, diagnosis, management tactics;
- ovarian apoplexy: clinic, diagnosis, management tactics;
- emergency care;
- preoperative preparation and postoperative management of gynecological patients;
- rehabilitation after gynecological interventions.

List of didactic units:

Questions (tests, tasks, clinical situations to check the basic level of knowledge on the topic of the class.

Question:

- What diseases lead to an "acute abdomen" in gynecology?
- Ectopic pregnancy. Definition, classification, etiology, pathogenesis,
- Clinical signs, diagnosis, treatment?
- Ovarian apoplexy. Definition, classification, etiology, clinical picture,
- Diagnosis, treatment?
- Differential diagnosis of "acute abdomen" in gynecology?
- Emergency care?
- How to properly prepare gynecological patients for urgent and planned surgical interventions?

- How to properly manage the postoperative period?
- Rehabilitation after surgery?

Test situational tasks:

Task 1: An 18-year-old female patient was brought to the hospital by an ambulance with complaints of persistent pulling pain in the lower left abdomen. She became acutely ill about 3 hours ago after sexual intercourse, when pain appeared in the lower abdomen on the left. I have been menstruating since the age of 14, the cycle was established in 1 year, currently menstruation is regular, every 30 days, 3 days, moderate, painless. The last menstrual period began 14 days ago, it was on time, without any peculiarities. There was no history of pregnancy. Barrier contraception. About 6 months ago she was treated in a gynecological hospital for acute inflammation of the uterine appendages. From somatic diseases: chronic bronchitis.

Bimanual examination: uterus of normal size and consistency, painless. The right appendages are not detected. On the left, a slightly enlarged, dense, painful ovary is palpated. The vaults are deep, painless.

Parameters are free.

Questions:

1. What is the preliminary diagnosis?
2. What is the doctor's tactic in the absence of signs of intra-abdominal bleeding?

Correct answers:

1. Apoplexy of the left ovary, painful form.
2. Conducting conservative therapy: bed rest, cold on the lower abdomen of the abdomen, administration of hemostatic drugs, analgesics, antispasmodics, if ineffective, surgical treatment.

Task 2. Patient A., 27 years old, consulted a doctor with complaints of periodic pain in the lower abdomen, mainly on the left for two days, slight dark bloody discharge from the genital tract, menstrual delay of 12 days. Anamnesis: menstruation since the age of 15, 4 days, cycle 32 days, painful, moderate. The last menstruation was 45 days ago (12 days delay). Sexual activity since the age of 17. Married since the age of 21. There were no pregnancies, the couple does not use contraception. Objectively: the general condition of the patient is satisfactory. The skin and visible mucous membranes are pale pink. The body temperature is 36.6 °C. Pulse - 78 beats/min, blood pressure - 115/70 mm Hg. breathing; during superficial and deep palpation, soft and painless throughout. There are no signs of peritoneal irritation. Urination is painless. Pasternacki's symptom is negative on both sides.
General examination: stool is normal. Gynecological examination: cervix conical, epithelium unchanged, cyanotic. The external eye is closed. Slight dark

bloody discharge from the cervical canal. Bimanual examination: the uterine body is slightly enlarged, relatively mobile, painless to palpation. In the area of the left uterine appendages, a doughy mass with indistinct contours measuring 4.5 x 5.0 x 4.5 cm, limitedly mobile, painful on palpation. The right uterine appendages are not palpable. The vaginal vaults are deep. Discharge from the genital tract is light, dark bloody.

Questions:

1. What is the preliminary diagnosis?
2. What additional laboratory and instrumental methods of examination will allow you to determine the correct diagnosis?

Correct answers:

1. Progressive left-sided tubal pregnancy.
2. Additional methods of research to establish the diagnosis: determination of the level of β-hCG; pelvic ultrasound.

Typical test tasks:

1. A 26-year-old female patient complains of pain in the lower abdomen, smearing bloody discharge from the genital tract. Menstruation is regular, delayed for 2 weeks. The pregnancy test is positive. Objectively: sharp pain during cervical displacement. The uterus is slightly enlarged. In the area of the right appendages - an elongated soft mass, painful to palpate. There is a slight bloody discharge from the genital tract. What is your diagnosis?

A. Disrupted tubal pregnancy
B. Uterine pregnancy
C. Ovarian apoplexy
D. Acute appendicitis
E. Acute adnexitis

2. A 20-year-old woman complained of a 10-day delay in menstruation. Menstrual dysfunction for the first time. Sexual life is regular, contraception is not used. On examination: satisfactory condition, soft, painless abdomen, blood pressure 120/80 mm Hg, pulse 72 beats per minute. A progressive tubal pregnancy is suspected during transvaginal echography.

What will be the tactics of the antenatal clinic doctor?

A. Perform an abdominal puncture through the posterior vaginal vault
B. Refer the patient for hCG evaluation
C. It is recommended to come back in a week for a follow-up ultrasound
D. Perform functional diagnostic tests
E. Urgently hospitalize the patient

3. A 36-year-old woman complained of heavy bleeding from the genital tract and a month's delay in menstruation. Bimanual examination: barrel-shaped

cervix, soft consistency. The uterus is of normal size, slightly softened. Appendages without features on both sides. Examination in mirrors: cervix cyanotic, enlarged in size, external ocellus dilated to 0.5 cm. Urine test for HCG is positive.

What is the most likely diagnosis?

A. Abortion "in progress"
B. Uterine pregnancy
C. Cervical pregnancy
D. Threat of abortion
E. Ectopic pregnancy

The correct answers are: 1 - A; 2 - E; 3 – C

3. Formation of professional skills (mastering skills, conducting supervision, determining a treatment regimen, conducting laboratory tests).

- Content of the task (tasks, clinical situations, etc.)

Interactive task

We divide the students in the group into 3 subgroups of 4-5 people each. We work in the rooms with dummies and pregnant patients and give them tasks:

Subgroup I - to perform external pelvimetry.
Subgroup II - to measure the Solovyov index and Michaelis rhombus.
Subgroup III - to assess the size of the pelvis, to determine the size of the true conjugate.

Atypical situational tasks

Problem 1. Patient M., 28 years old, was admitted to the gynecological department with complaints of sudden onset of pain in the lower abdomen, which radiated to the thigh, rectum, scapula and clavicle, as well as nausea, dizziness, lethargy, bloody dark discharge from the genital tract for a week, menstrual delay for 4 weeks. She fell ill suddenly at work. She has been menstruating since the age of 14, 5-6 days, 28-day cycle, painless, moderate. The last menstrual period was 8 weeks ago. Sexual activity since the age of 17. She is married. Does not prevent pregnancy. There was one pregnancy 4 years ago, which ended in a medical abortion. Objectively: the general condition of

the patient is serious. The skin and visible mucous membranes are pale. There is cold sweat. Breathing is frequent, shallow. The tongue is clean, moist. Limbs are cold to the touch. During the examination, she lost consciousness. The body temperature is 36.4°C. Pulse - 96 beats/min, weak, blood pressure - 85/55 mm Hg. Algover's shock index - 1.13.

The abdomen is moderately distended, palpable in the lower regions. The Shchotkin-Blumberg symptom is positive, and the Kuhlenkampf symptom is noted. Abdominal percussion - blunted percussion sound.

Urination is painless and free. Pasternacki's symptom is negative on both sides. Voiding is not disturbed.

Gynecological examination: cervix conical, epithelium intact, cyanosis of the vaginal mucosa and cervix. Dark, slightly bloody discharge from the cervical canal.

Bimanual examination: cervical excursions are sharply painful, Promptov's symptom is positive. The body of the uterus is slightly enlarged, softened, painful when displaced, the symptom of a "floating uterus" is determined. In the area of the left uterine appendages, a tightly elastic mass measuring 5.0 x 6.0 x 5.0 cm, sharply painful, is palpated. The right uterine appendages are not palpable. The posterior vault is overhanging and sharply painful on palpation ("Douglas's cry"). The genital discharge is light, bloody, dark.

Questions:

1. What is the preliminary diagnosis?
2. What clinical signs confirm the diagnosis?
3. Determine the algorithm of the doctor's action?
4. Define the symptom of Kuhlenkampf?
5. What is the peculiarity of the blood obtained by puncture of the abdominal abdominal cavity through the posterior vault?
6. Classification of tubal pregnancy by location and clinical course?

Correct answers:

1. Disrupted left-sided tubal pregnancy by the type of rupture of the fallopian tube of the fallopian tube. Intra-abdominal bleeding. Hemorrhagic shock of the second degree.
2. Clinical signs confirming the diagnosis:

- complaints and anamnesis: pain occurred suddenly in the lower abdomen with radiation to the thigh, rectum, scapula and clavicle, nausea, dizziness, lethargy, bloody dark discharge from the genital tract for a week, menstrual delay for 4 weeks.
- Objective examination data indicating signs of intra-abdominal bleeding: general condition is severe; loss of consciousness during examination, pallor of skin and visible mucous membranes, cold sweat; frequent and shallow breathing, cold limbs to the touch, hypotension, tachycardia, increased Algover

shock index, moderately distended and painful to palpate in the lower abdomen, positive symptoms of Shotkin- Blumberg and Kuhlenkampf symptoms, blunted percussion sound;

- gynecological examination data indicating ectopic pregnancy:
- cyanosis of the vaginal mucosa and cervix, dark, slightly bloody
- discharge from the cervical canal, painful cervical excursions, positive-

Promptov's symptoms, Douglas' cry, floating uterus, palpation of a sharply painful, tightly elastic mass measuring 5.0 x 6.0 x 5.0 cm in the area of the left uterine appendages.

3. Algorithm of the doctor's actions: hospitalization; laboratory tests (complete blood count, complete urine count, blood type and Rh factor, coagulogram, blood chemistry); electrocardiogram; pelvic ultrasound; determination of β-hCG levels; in hospitals where laparoscopic diagnostics are not available, abdominal puncture through the posterior vault (culdocentesis) is performed. If blood effusion is detected, urgent laparotomy, tubectomy, sanitation and drainage of the abdominal cavity are performed. In hospitals where laparoscopic surgery is possible, laparoscopy is used as a method of diagnosis and treatment (laparoscopic tubectomy); restoration of circulating blood volume.
4. Kuhlenkampf's symptom is the presence of signs of peritoneal irritation in the absence of local muscle tension in the lower abdomen.
5. If dark, viscous, non-coagulable blood is obtained during culdocentesis, the diagnosis of ectopic pregnancy is considered to be established. If the blood obtained from the abdominal cavity is poured onto gauze, small dark clots will be observed on the gauze, and when examined under a microscope, such blood does not have "coin columns" and has destroyed crescentic or star-shaped red blood cells, this indicates that the blood was obtained from the abdominal cavity.
6. Classification of tubal pregnancy by location: in the ampullary compartment; in the isthmic compartment; in the interstitial compartment. Classification of tubal pregnancy by clinical course: progressive tubal pregnancy; aborted tubal pregnancy (by type of tubal rupture; by type of tubal abortion).

Task 2. Patient O., 26 years old, came to the gynecological department with complaints of periodic pain in the right inguinal area, nausea, smearing bloody discharge from the genital tract, weakness. The last menstrual period was a month and a half ago, and for the first time she has noticed a delay in menstruation. She has not been protected from pregnancy for three years. She is physically healthy. Over the past day, she has been experiencing periodic pain in the right inguinal area, which worsened at night, radiating to the anus, and

nausea. Bloody discharge increased. Objectively: satisfactory condition. Temperature 37.0 °C.

The anterior abdominal wall is not tense, participates in the act of breathing, there is tenderness in the right iliac region. Symptoms of peritoneal irritation are negative.

In the mirrors: cervix cylindrical, cyanotic, dark bloody discharge from the external pharynx. Vaginally: the uterus is in anteflexion, slightly enlarged, spherical, softened, mobile, painless. The left appendages are unremarkable. To the right of the uterus, enlarged and painful spindle-shaped appendages are detected. Palpation of the posterior vault is moderately painful. The vaginal vaults are deep.

Questions:

1. What is the expected diagnosis?
2. What diseases should be differentially diagnosed?
3. Make an examination plan?
4. Medical tactics in case of confirmation of the diagnosis?
5. Anticipated extent of surgery in case of surgical treatment?

Correct answers:

1. An aborted ectopic pregnancy on the right is a type of tubal abortion.
2. Apoplexy of the ovary, inflammation of the uterine appendages with menstrual irregularities, torsion of the ovarian tumor pedicle, necrosis of the myomatous node.
3. Ultrasound of the genitals, determination of hCG in the blood plasma, complete blood count, general urinalysis, blood group, Rh factor, coagulogram, biochemical blood test; electrocardiogram
4. Surgical treatment in an urgent manner.
5. Tubectomy or tubectomy with enucleation of the ovum.

Atypical test tasks:

1. A woman complains of acute lower abdominal pain radiating to the anus, nausea, dizziness, bloody dark discharge from the genital tract for a week, delayed menstruation for 4 weeks. Symptoms of peritoneal irritation are positive. In the mirrors: cyanosis of the vaginal mucosa and cervix. Bimanual examination reveals the symptom of a "floating uterus", protrusion and tenderness of the posterior and right lateral vaginal vaults.

What is the most likely diagnosis?

A. Acute appendicitis
B. Ovarian apoplexy
C. Acute right-sided adnexitis
D. Torsion of the ovarian tumor pedicle

E. Disturbed ectopic pregnancy

2. A 23-year-old female patient was urgently admitted to the hospital with complaints of pain in the lower abdomen, more intense on the right, with irradiation to the rectum, dizziness. The above complaints appeared suddenly at night. The last menstruation was 2 weeks ago. Objectively: pale skin, pulse rate - 92/min, body temperature - 36.6 C, blood pressure - 100/60 mm Hg. Hemoglobin is 98 g/l. What is the preliminary diagnosis?

A. Ovarian apoplexy
B. Disturbed ectopic pregnancy
C. Acute appendicitis
D. Intestinal obstruction
E. Renal colic

The correct answers are:
1 - E; 2 - A

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

Classification of ectopic pregnancy

Depending on the location of the fetal egg in the fallopian tube: ampullary, hysterical, interstitial.

Depending on the course of the ectopic pregnancy: progressive ectopic pregnancy; tubal pregnancy terminated by tubal abortion; tubal pregnancy terminated by rupture of the fallopian tube.

Algorithm for diagnosing ectopic pregnancy

1. Clinical picture:

The main complaints of patients with ectopic pregnancy are menstrual delay, bleeding from the genital tract, pain, nausea. In urgent gynecology, disturbed tubal pregnancy - tubal rupture or tubal abortion - is more common.

Ectopic pregnancy disrupted by tubal rupture: characterized by an acute onset, which is usually preceded by a delay in menstruation.

The pain in the lower abdomen is sharp, cramping, irradiating to the anus, sub- and supraclavicular areas, shoulder or shoulder blade, accompanied by nausea, vomiting, dizziness, and loss of consciousness is possible during an intense pain attack.

Objectively: skin and mucous membranes are pale, extremities are cold. Tachycardia, weak pulse, low blood pressure. The abdomen is slightly

distended, painful on palpation, more on the affected side, moderate tension of the abdominal wall muscles, symptoms of peritoneal irritation.

Percussion - dullness in the abdomen.

Gynecological examination: cyanosis of the vaginal mucosa and exocervix when examined with mirrors.

Bimanual examination (very painful) reveals: the uterus is enlarged, but less than the expected gestational age, easily displaced, as if "floating" in free fluid. In the area of the uterine appendages, pastiness is detected or a tumor-like mass is palpated. The posterior and one of the lateral vaults are overhanging; when trying to dislodge the cervix and palpating the posterior vault, there is sharp pain with radiation to the rectum.

Ectopic pregnancy disrupted by a tubal abortion: the termination of this pregnancy is characterized by a slow course (from several days to several weeks). The main complaints are: paroxysmal pain in the lower abdomen, smearing, light, dark brown or almost black discharge from the genital tract against the background of menstrual delay (due to rejection of the decidual membrane as a result of a decrease in the level of sex hormones). There may be recurrent short-term fainting spells, weakness, dizziness, cold sweats, vomiting.

Gynecological examination shows cyanosis of the mucous membranes, slight blood discharge from the cervical canal. Uterine enlargement does not correspond to the gestational age. In the area of the right or left uterine appendages, a moderately mobile tumor-like mass with indistinct contours is palpated. The posterior and corresponding lateral vault are flattened or protruded, moderately painful. Abdominal pregnancy is very rare. The fetal egg can attach to any organ of the abdominal cavity, except for the intestine. As a rule, it ends with rupture of the capsule of the ovum in the early stages and significant bleeding and peritoneal shock.

Cervical pregnancy - in the early stages is asymptomatic, later there is a bloody discharge. On examination, there is a bulbous enlargement of the cervix. There is a high risk of profuse bleeding.

2. Laboratory and instrumental diagnostics: Ultrasound of the pelvic organs, abdominal cavity; determination of the level of human chorionic gonadotropin (hCG); abdominal puncture through the posterior vaginal vault (in case of ectopic pregnancy, dark, non-coagulable blood is detected); endometrial biopsy (in case of ectopic pregnancy, the endometrium is transformed into the decidual membrane in the form of the Arias-Stella phenomenon and "light glands" Overbeck's gland and chorionic villi are not detected); laparoscopy (the most informative diagnostic method in 97-100% of cases).

Treatment algorithm for ectopic pregnancy

1. Treatment can be surgical and conservative. The choice of method depends on the clinical course, the location of the fetal egg, the woman's reproductive plans, and the capabilities of the medical institution.
2. Surgical treatment remains the most common method of treating ectopic pregnancy. The patient should be operated on immediately after the diagnosis of a disrupted ectopic pregnancy. Additionally, infusion therapy is performed (the volume and rate of solution administration depends on the amount of blood loss/stage of hemorrhagic shock).

Surgical treatment of tubal pregnancy is possible by laparoscopic and laparotomy approach. With any method, both radical (tubectomy - performed in case of a disrupted tubal pregnancy accompanied by massive bleeding and distinct pathological changes
of the fallopian tubes, rupture) and organ-preserving operations (fimbria evacuation, segmental resection of the fallopian tube, salpingotomy (tubectomy).

3. In modern practice, it is possible to use conservative methods of treating ectopic pregnancy. They are performed only in a gynecological hospital if a woman wishes to preserve her reproductive function, has an unbroken tubal pregnancy, and does not have severe somatic diseases.

In most cases, methotrexate is used - a folic acid antagonist that causes embryo death with subsequent tubal abortion or resorption of the fetal egg without damaging the endosalpinx.

Contraindications for methotrexate: thrombopenia, leukopenia, severe liver and kidney disease, ovum diameter greater than 3 cm, more than 100 ml of blood in the Douglas space.

4. In cervical pregnancy, the uterus is extirpated without appendages.

Clinical forms of ovarian apoplexy:

1. Anemic form: I degree - mild (blood loss up to 150 ml); II degree - moderate (150 - 500 ml); III degree - severe (more than 500 ml).

The clinical picture of the anemic form is dominated by symptoms of intra-abdominal bleeding: acute pain in the abdomen, above the pubic area or in the iliac region with radiation to the anus, external genitalia; nausea, vomiting, weakness, dizziness; pallor of the skin and mucous membranes; lowered blood pressure, tachycardia; moderate symptoms of peritoneal irritation on the side of the lesion; percussion detection of free fluid in the abdominal cavity. Gynecological examination: pale vaginal mucosa; overhanging of the posterior and lateral vaginal vaults (in case of significant bleeding); enlarged, painful ovary; painful cervical traction.

2. The painful form is characterized by the presence of hemorrhage in the ovarian tissue (follicle or corpus luteum) without bleeding or with slight

bleeding into the abdominal cavity. The main symptoms are: acute onset, paroxysmal pain; nausea, vomiting; blood pressure, pulse is normal. The abdomen is often soft, but some tension of the abdominal wall muscles in the iliac regions may be detected. The abdomen is tender in the lower parts during palpation. No free fluid is detected in the abdominal cavity. There is no bloody discharge from the genital tract. The gynecological examination reveals a normal-sized uterus, the displacement of which causes pain; an enlarged, painful ovary. The vaults are deep and free. 3. Mixed form combines symptoms of anemic and painful forms in different proportions.
Algorithm of laboratory and instrumental diagnostics of ovarian apoplexy:
-Comprehensive blood count (anemic form - anemia; painful form - leukocytosis without neutrophil shift, no signs of anemia);
- Ultrasound of the pelvic organs;
- HCG (to exclude ectopic pregnancy);
- abdominal puncture through the posterior vaginal vault;
- laparoscopy.

Algorithm for the treatment of ovarian apoplexy

1. The anaemic form of the disease requires urgent surgical treatment (laparoscopy or laparotomy). A wedge resection of the ovary within healthy tissue or suturing of the tear with a Z-shaped suture is performed. The entire ovary is removed only in cases where all its tissue is saturated with blood.
2. The painful form of ovarian apoplexy without clinical signs of increasing internal bleeding can be treated conservatively under the control of central haemodynamics and laboratory blood counts. Rest, cold on the lower abdomen, haemostatic drugs, vitamins, anti-inflammatory therapy, etc. are prescribed. Conservative therapy is carried out in a hospital under the supervision of medical staff.

Algorithm of examination of gynecological patients before planned surgical intervention:

1. General physical examination
2. Gynecological examination
3. Determination of blood group and Rh factor
4. Blood test for RW, HIV; Hbs - a / a
5. Complete blood count
6. General urine analysis
7. Biochemical blood test (total protein, creatinine, urea, bilirubin, ALT, AST, blood sugar)
8. Coagulogram

9. Cytological examination of smears from the surface of the cervix and cervical canal
10. Bacteriological and bacterioscopist analysis of the genital tract discharge (urethra, cervical canal, vagina)
11. Examination for human papillomavirus (HPV 16, 18 type PCR)
12. Colposcopy (if indicated)
13. Ultrasound examination of the pelvic organs
14. Ultrasound examination of abdominal organs, kidneys
15. Electrocardiogram
16. Fluorography or radiography of the chest organs
17. Examination by a therapist
18. Consultations of specialized specialists (if indicated)
19. Fibro gastroduodenoscopy (FGDS), colonoscopy (if indicated)
20. Cancer markers (according to indications)

Algorithm for the management of the postoperative period:

1. After the operation, observation is carried out in the intensive care unit with constant monitoring of the general condition and well-being, skin colour, functional state of organs and systems.
2. Treatment and prevention of postoperative disorders:
a) postoperative pain: analgesics (2 % primidolol solution 1 ml after 6 hours, 50 % analgen solution 2 ml or other drugs);
b) nausea and vomiting: infusion therapy, narcotic analgesics, sedatives, oxygen therapy;
c) correction of microcirculatory disorders: hypovolemia syndrome - infusion therapy (red blood cell mass, plasma, etc., crystalloid solutions);
d) intestinal paresis: active management of patients (getting up on the first day after surgery, exercise therapy), gas tube, enemas, hypertonic sodium chloride solution, pharmacological agents, stimulating intestinal function (Proserpine).
3. Antibacterial therapy. In parallel with antibacterial therapy, antifungal agents (nystatin) are prescribed for the prevention of candidiasis.
4. Monitoring the condition of the surgical wound sutures with its daily examination and dressing change. In the normal course of the postoperative period, the sutures are removed on the 7th-8th day.
5. Observation of the discharge from the genitals, from the drains.
6. Monitoring the absence of symptoms of peritoneal irritation.
7. Patients are discharged from the hospital on the 5th-9th day.
8. Patients' nutrition - in the first two days, a zero table is prescribed, then table No. 2 with a transition to a general table within 4-5 days if there are no contraindications.

9. Physiotherapy, exercise therapy, early activation of patients contributes to a more favorable course of the postoperative period.
10. Restoration of hormonal homeostasis, prescription of contraceptives (if indicated)

Abdominal puncture through the posterior vaginal vault

Indications: suspected ectopic pregnancy, ovarian apoplexy, intra-abdominal bleeding, recto-uterine abscess.
Instruments for puncture: spoon-shaped vaginal mirror, vaginal elevator, ball forceps, 10-12 cm long puncture needle, coronary forceps.
Technique: the patient is placed on a gynecological chair. The external genitalia, vagina and cervix are disinfected with alcohol and 5% iodine tincture. The vaginal part of the cervix is exposed with the help of a rear mirror and a lift, and the labia are grasped with ball forceps. The lift is removed and the rear-view mirror is handed over to the assistant. The cervix is pulled forward with ball forceps, while the mirror is used to press on the back wall of the vagina and thus stretch the posterior vault as much as possible. Under the cervix, a needle is passed through the posterior vault strictly along the midline, 1 cm from the point where the vault passes into the vaginal part of the cervix. The needle penetrates to a depth of 2-3 cm. When puncture of the vault, there is a feeling of the needle falling into the void. After that, pull the syringe plunger towards you. The liquid is obtained by pulling the plunger or simultaneously with the slow release of the needle.

Requirements for the results of work, including design

1. Collect complaints, history of a patient with an "acute" abdomen
2. Carry out differential diagnosis
3. Establish a diagnosis and make a plan of treatment in a patient with an "acute" abdomen.
4. Make a plan for the examination of a patient with an "acute" abdomen.
5. Correctly interpret the data of laboratory and instrumental research methods.
6. Provide recommendations on the choice of surgical treatment.
7. Make a plan for preoperative preparation of the patient
8. Make a plan for postoperative management of the patient

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

Atypical situational tasks:

Task 1. Patient I., 32 years old, consulted a doctor with complaints of heavy bloody discharge from the genital tract, periodic pulling pain in the lower abdomen, general weakness, delayed menstruation for 2 weeks. Menstruation since the age of 12, 6 days, 30-day cycle, painless, moderate, regular. Sexual activity since the age of 20.

Objectively: the general condition of the patient is satisfactory. The skin and visible mucous membranes are pale pink in color. The tongue is moist, not coated. The body temperature is 36.5 °C. Pulse - 84 beats per minute, blood pressure - 100/65 mm Hg. The abdomen is not distended, participates in the act of breathing; during superficial and deep palpation - soft and painless throughout. Symptoms of peritoneal irritation are negative. Urination is painless and free. Pasternacki's symptom is negative on both sides. The stool is normal.

Gynecological examination: the cervix is enlarged, deformed, "barrel-shaped", cyanotic. The external oculus is slightly open, eccentrically located. Abundant bloody discharge from the cervical canal. Bimanual examination: cervix enlarged, softened. The uterine body is not enlarged, sensitive to palpation, mobile. The uterine appendages on the right and left are not enlarged, the area of palpation is painless. The vaults are free. Discharge from the genital tract is bloody, profuse.

Questions:

1. Establish a preliminary diagnosis?
2. Algorithm for managing a woman?
3. Tactics of treatment of the patient?

Correct answers:

1. Cervical pregnancy. Abnormal uterine bleeding.
2. Algorithm of patient management: emergency hospitalization to a gynecological hospital for further examination and treatment; transvaginal ultrasound of the pelvic organs; determination of the level of β-hCG.
3. Surgical treatment of the patient - extirpation of the uterus without appendages.

Task 2.

Patient B., 21 years old, was admitted to the gynecological department with complaints of sharp pain in the lower abdomen, radiating to the anus, dizziness, which occurred suddenly after coitus. She had a short-term loss of consciousness at home. Menstruation since the age of 13, established in 2 years, 7 days, cycle 28-34 days, painless, moderate. The last menstruation was 2 weeks ago, as expected. She has been sexually active for a year. She has not been pregnant. The last visit to the gynecologist was 3 months ago, no gynecological pathology was detected.

Objectively: the general condition of the patient is moderate. The skin and visible mucous membranes are pale. The tongue is clean, moist. The body

temperature is 37.1 °C. Pulse - 84 beats per minute, blood pressure - 100/65 mm Hg. The abdomen is moderately distended, moderately painful on palpation in the hypogastric region. Symptoms of peritoneal irritation are positive. Abdominal percussion - dullness of sound. Pasternacki's symptom is negative on both sides. Physiological discharges are normal.

Gynecological examination: cervix conical, epithelium unchanged. The external eye is closed. Bimanual examination: cervical excursions are sharply painful, Promptov's symptom is positive. The uterine body is in the anteflexion position, not enlarged, dense, sensitive to palpation, mobile. In the area of the right uterine appendages, a tightly elastic mass measuring 5.0x6.0x5.0 cm is palpated, sharply painful. The left uterine appendages are not palpable. The posterior vaginal vault is overhanging and sharply painful on palpation. Discharge from the genital tract is bloody, scanty.

Complete blood count: hemoglobin - 94 g/l, erythrocytes - 2.9 - 1012/l, leukocytes - 5.4 - 109 /l.

Questions:

1. What is the preliminary diagnosis?
2. Make a plan for further examination of the patient?
3. What determines the tactics of treatment (conservative or surgical) in patients with ovarian apoplexy?
4. Determine the extent of surgical intervention in this patient?
5. Postoperative rehabilitation of the patient?

Correct answers:

1. Apoplexy of the right ovary, mixed form. Intra-abdominal intra-abdominal bleeding. Hemorrhagic shock I. Anemia I.
2. Plan for further examination of the patient: general clinical and biochemical laboratory tests (complete blood count, complete urinalysis, blood group and Rh factor, biochemical blood test, coagulogram), electrocardiogram; pelvic ultrasound; rapid urine hCG test.
3. Treatment tactics depend on the general condition of the patient, the volume of intra-abdominal bleeding, and hemodynamic parameters.
4. The scope of surgical intervention in this woman is resection/suturing of the right ovary. Sanitation and drainage of the abdominal cavity.
5. In order to prevent recurrence of ovarian apoplexy, it is necessary to prescribe combined hormonal contraceptives for 4-6 months.

Test tasks KROK-2:

1. An ambulance delivered a woman with cramping pain in the right hypochondrium, radiating to the rectum, bloody discharge from the genital tract. The above complaints arose after a delay in menstruation.

Objectively: Heart rate 100 beats per minute, blood pressure 90/60 mm Hg. The abdomen is painful to palpation, positive Shotkin-Blumberg symptom. Gynaecological examination - cervical displacements are painful, right appendages are enlarged, painful, posterior vault is overhanging, discharge is bloody.

Make a preliminary diagnosis:

A. Acute right-sided adnexitis
B. Ectopic pregnancy that has been terminated
C. Abortion "on the go"
D. Apoplexy of the right ovary
E. Appendicitis

2. A 27-year-old patient complains of cramping pain in the lower abdomen, which periodically increases, bloody discharge from the genital tract. The periods are regular. The last menstruation was 6 weeks ago. The general condition is unsatisfactory. Blood pressure 90/60 mm Hg, pulse 100 beats/min, rhythmic. The abdomen is tense, painful. The Shotkin-Blumberg symptom is positive. Vaginal examination: the uterus is slightly enlarged, painful when displaced, the appendages are not clearly defined due to tension of the muscles of the anterior abdominal wall, the posterior vault is overhanging. The discharge is bloody.

Which diagnosis is most likely?

A. Ovarian apoplexy
B. Necrosis of the myoma node
C. Disturbed ectopic pregnancy
D. Rupture of the ovarian cyst
E. Rupture of the pyosalpinx

The correct answers are: 1 - B; 2 - C;

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

Structure of current assessment in practical training:
1. Assessment of theoretical knowledge on the topic of the lesson:
- methods: questionnaire, solving a situational clinical task;
- maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

2. Assessment of practical skills and manipulations on the topic of the class:
- methods: assessment of the correctness of practical skills;
- maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

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

Protocols, standards, regulatory materials:

Clinical protocol on obstetric care "On organization of outpatient obstetric and gynecological care in Ukraine" No 417 of 15.07.2011

Summing up the results (criteria for assessing learning outcomes)

Evaluation of students' independent work (SRS)

Independent and individual work of higher education students involves independent study of the educational material presented at the SRS, and is carried out in the following forms: study of the educational specialized literature, policy documents, writing essays on the topics of missed classes, etc.

Independent work of higher education students during the current control of mastering the topics of the sections in the relevant classroom. Mastery of topics that are submitted only for independent work is checked during the test control.

Evaluation of individual problems of a higher education student

In order to increase the arithmetic mean of all grades received by a higher education student in the study of the discipline, the grade for individual assignments is awarded to the student only if they are successfully completed and defended

Current academic performance

Assessment of the success of studying each topic in the discipline is carried out on a traditional 4-point scale.

The following methods are used to control the learning outcomes of higher education students: oral questioning on the topic of the class; testing; solving situational tasks; drawing up a plan for the examination and treatment of patients, analyzing the results of clinical, laboratory and instrumental studies, substantiating the diagnosis, determining indications for surgery, practicing practical skills on phantoms, etc.

At the end of the discipline, the current academic performance is calculated as the current grade point average, i.e., the arithmetic mean of all grades received by the student on the traditional scale, rounded to 2 (two) decimal places, for example, 4.75.

At the last practical lesson, the teacher is obliged to announce to the students the results of their current academic performance, academic debt (if any).

4.Current success rate

Current control: oral survey, assessment of communication skills during role play, solving situational clinical tasks, assessment of activity in class.

Final control: credit.

Evaluation of the current educational activity in a practical lesson:

1. Evaluation of theoretical knowledge on the subject of the lesson:

- methods: survey, solving a situational clinical problem
- maximum score – 5, minimum score – 3, unsatisfactory score – 2.

2. Assessment of work with patients on the subject of the lesson:

- methods: assessment of: a) communication skills of communication with the patient b) the correctness of prescribing and evaluating laboratory and instrumental studies before using a contraceptive c) the ability to conduct family planning counseling.
- maximum score – 5, minimum score – 3, unsatisfactory score – 2.

The grade for one practical lesson is the arithmetic average of all components and can only have a whole value (5, 4, 3, 2), which is rounded according to the statistical method.

Criteria of ongoing assessment at the practical class

«5»	The student is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills and interprets the results of clinical, laboratory and instrumental studies, expresses his opinion on the topic, and 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 and interprets the results of clinical, laboratory and instrumental studies with some errors, expresses his opinion on the topic, and demonstrates clinical thinking.
«3»	The student does not have enough material, uncertainly participates in the discussion and solution of the situational clinical problem, demonstrates practical skills during the examination and interprets the results 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, and does not demonstrate practical skills during the examination and interpret the results of clinical, laboratory and instrumental studies.

5. Recommended literature

Basic:

1. Obstetrics: Normal and Problem Pregnancies, 7th Edition S. Gabbe, J. R. Niebyl, J. L. Simpson, M. B. Landon, H. L. Galan, E. R. M. Jauniaux, D. A. Driscoll, V. Berghella and W. A. Grobman, Elsevier. – 2017. – 1320 pp.
2. Williams Manual of Obstetrics (24th Ed) F. G. Cunningham, K. J. Leveno, S. L. Bloom, C. Y. Spong, J. S. Dashe, B. L. Hoffman, B. M. Casey, J. S. Sheffield, McGraw-Hill Education/Medical. – 2014. – 1377 pp.
3. DC Dutta's Clinics in Obstetrics / edited by Hiralal Konar- 2021- 306 pp.
4. Llewellyn-Jones Fundamentals of Obstetrics and Gynaecology (10th Ed). Jeremy Oats, Suzanne Abraham. Elsevier. 2016. – 384 pp.
5.The FIGO Textbook of Pregnancy Hypertension. An evidence-based guide to monitoring, prevention and management. L. A. Magee, P. Dadelszen, W. Stones, M. Mathai (Eds), The Global Library of Women's Medicine. – 2016. – 456 pp.
6.Mayo Clinic Guide to a Healthy Pregnancy. (2 nd Ed) Myra J.Wick / ebook-2018. – 946 pp.
7.Clinical Obstetrics and Gynaecology: 4th Edition/ Brian A. Magowan, Philip Owen, Andrew Thomson. - 2018. – 416 pp.
8.Gynecologic Health Care: With an Introduction to Prenatal and Postpartum Care: With an Introduction to Prenatal and Postpartum Care 4th Edition / K. D. Schuiling, F. E. Likis – 2020/- 500 pp.
9.Oats, Jeremy Fundamentals of Obstetrics and Gynaecology [Text]: Liewellyn-Jones Fundamentals of Obstetrics and Gynaecology / J.Oats, S.Abraham. – 10th ed. – Edinburgh [etc.]: Elsevier, 2017. – VII, 375 p.
10,Obstetrics: Normal and Problem Pregnancies, 7th Edition S. Gabbe, J. R. Niebyl, J. L. Simpson, M. B. Landon, H. L. Galan, E. R. M. Jauniaux, D. A. Driscoll, V. Berghella and W. A. Grobman, Elsevier. – 2017. – 1320 pp.
11. Obstetrics and Gynecology : in 2 vol. : textbook. Vol. 1. Obs tet rics / V.I. Gry shchenko, M.O. Shcherbina, B.M. Ventskivskyi et al. ; edited by V.I. Gryshchenko, M.O. Shcherbina. — 2nd edition. — K. : AUS Medicine Publishing, 2018. — 392 p.
12.Oxford Textbook of Obstetrics and Gynaecology / edited by Sabaratnam Arulkumaran, William Ledger et all/ - 2020- 2546 pp.

Additional:

1. Obstetrics by Ten Teachers (20th ed) Louise C. Kenny, Jenny E. Myers. – CRC Press. – 2017. – 342 pp.
2. Current Progress in Obstetrics and Gynaecology. Vol 4. Eds. J. Studd, Seang Lin Tan, F. Chervenak. – 2017. – 419 pp.
3. Recent Advances in Obstetrics and Gynaecology. Vol 26. W. Ledger, J. Clark. – JP Medical. – 2015.– 230 pp.
4. Proactive Support of Labor. Reuwer P., Bruinse H., Franx A. – 2015. – 216 pp.

5. The model of screening for preeclampsia in the second and third trimesters of gestation / L. Berlinska, V. Marichereda, O. Rohachevskyi, A. Volyanska, G. Lavrynenko // Electronic Journal of General Medicine. - 2023 - 20(3), em473, https://www.ejgm.co.uk/

6. Current "Clinical protocols", approved by order of the Ministry of Health of Ukraine for Obstetrics and Gynecology.

- Order of the Ministry of Health of Ukraine dated August 9, 2022 No. 1437 "On approval of standards of medical care "Normal pregnancy".
- Order of the Ministry of Health of Ukraine dated January 26, 2022 No. 170 "On approval of the Unified clinical protocol of primary, secondary (specialized), tertiary (highly specialized) medical care "Physiological childbirth".
- Order of the Ministry of Health of Ukraine dated January 24, 2022 No. 151 "On approval of the Unified clinical protocol of primary, secondary (specialized), tertiary (highly specialized) medical care "Hypertensive disorders during pregnancy, childbirth and the postpartum period."
- Order of the Ministry of Health of Ukraine dated 09/24/2022 No. 1730 "On approval of standards of medical care "Ectopic pregnancy".

Electronic information resources

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/
11. http://www.aagu.com.ua/ асоціація акушер-гінекологів України