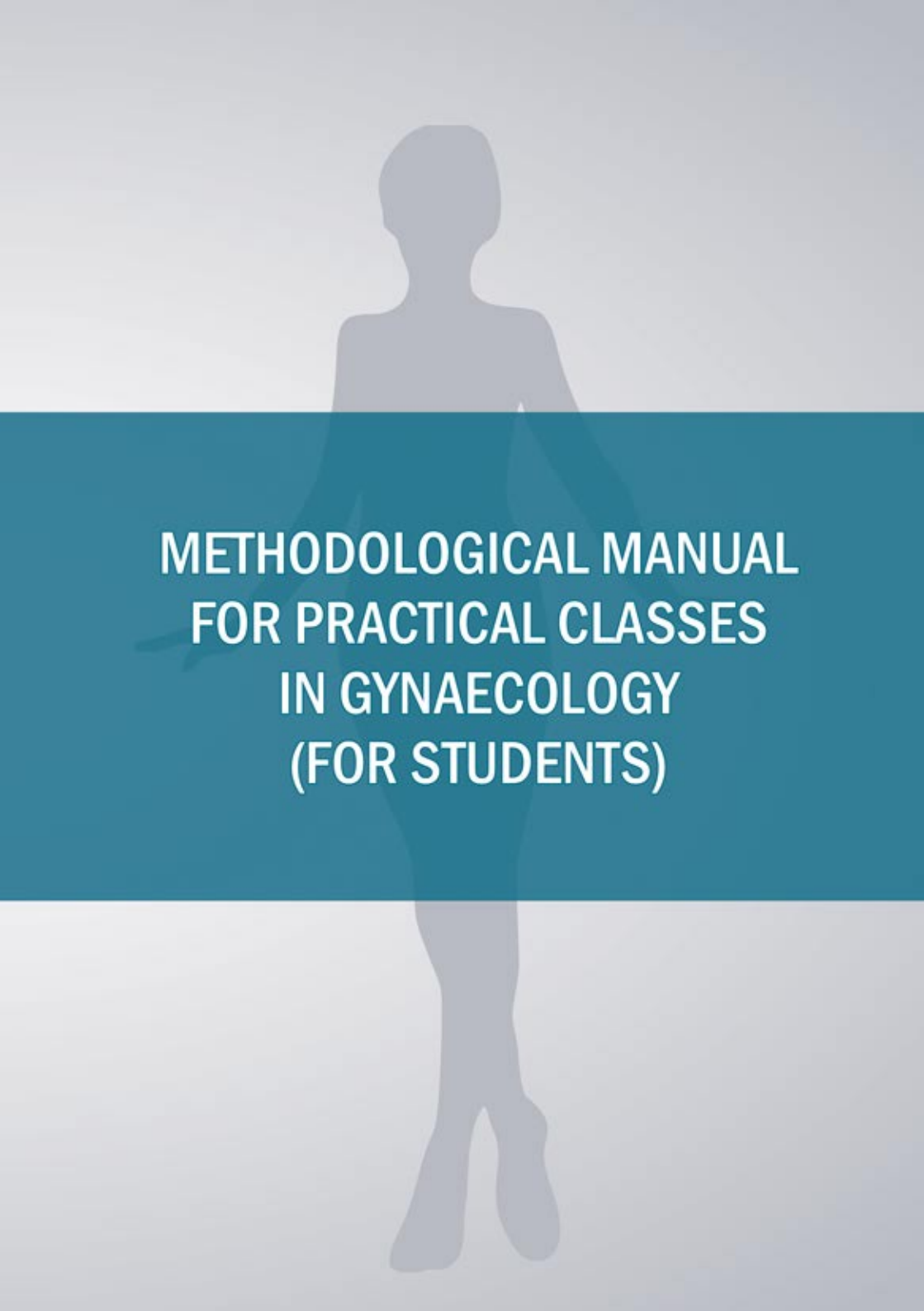

METHODOLOGICAL MANUAL FOR PRACTICAL CLASSES IN GYNAECOLOGY (FOR STUDENTS)

N. I. Pirogov Russian National Research Medical University

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY
FACULTY OF MEDICINE

METHODOLOGICAL MANUAL FOR PRACTICAL CLASSES IN GYNAECOLOGY (FOR STUDENTS)

Educational and methodical manual

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ФГАОУ ВО «Российский национальный исследовательский
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Министерства здравоохранения Российской Федерации

Кафедра акушерства и гинекологии

МЕТОДИЧЕСКОЕ ПОСОБИЕ К ПРАКТИЧЕСКИМ ЗАНЯТИЯМ ПО ГИНЕКОЛОГИИ (ДЛЯ СТУДЕНТОВ)

Учебно-методическое пособие

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Authors:
Y. E. Dobrokhotova, L. A. Ozolinya, A. Z. Khashukoeva, T. N. Savchenko, I. Y. Ilina, I. I. Grishin, S. B. Kerchelaeva, I. A. Lapina, I. V. Bakhareva, M. G. Venedictova, E. A. Markova, M. V. Burdenko, D. M. Ibragimova, S. A. Khlynova, B. A. Slobodyanuk, M. R. Narimanova, N. I. Nasyrova, G. A. Mandrikina, P. A. Kuznetsov, K. V. Morozova, A. H. Karanasheva, L. A. Philatova, D. M. Kalimatova, L. V. Saprikina, E. G. Gavrilova

Reviewers:
Doctor of Medical Sciences, Professor,
Professor of the Russian University of Medicine
S. G. Tsakhilova;
Doctor of Medical Sciences, Professor,
Professor of the Sechenov University
A. V. Murashko

Methodological manual for practical classes

M54 **in gynaecology (for students) :** educational and methodical manual / Y. E. Dobrokhotova, L. A. Ozolinya, A. Z. Khashukoeva [et al.]. – Cheboksary : Sreda, 2026. – 104 p.

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The textbook, developed by the staff of the Department of Obstetrics and Gynaecology of the Faculty of Medicine, is based on the sample and working programs of the discipline of "Obstetrics and Gynaecology", providing training for general physicians who possess certain knowledge, skills and abilities in the field of obstetrics and gynaecology, taking into account further training and professional activity in the speciality "Medicine".

The purpose of gynaecology classes in the 4th and 5th year of university is to study the main clinical and physiological features of the reproductive system of women, the features of normal menstrual function and its disorders, symptoms of inflammatory diseases of female genital organs, benign and malignant tumours, genital endometriosis, neuroendocrine disorders, anomalies of development and position of female genital organs, as well as various emergency conditions in gynaecology, requiring emergency medical care. Students should master the principles of examining patients, learn to recognise physiological and pathological processes in the female genital sphere on the basis of anamnesis and objective examination, refer to a specialist in a timely manner and, if necessary, provide emergency gynaecological care in a typical situation.

The manual provides a plan of clinical history of the disease, a list of basic and additional literature on the speciality.

The manual is recommended for independent work of students of the 4th and 5th year of medical faculties of medical institutions of higher professional education.

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Авторы:
Ю. Э. Доброхотова, Л. А. Озолиня, А. З. Хашукоева, Т. Н. Савченко,
И. Ю. Ильина, И. И. Гришин, С. Б. Керчелаева, И. А. Лапина, И. В. Бахарева,
М. Г. Венедиктова, Э. А. Маркова, М. В. Бурденко, Д. М. Ибрагимова,
С. А. Хлынова, Б. А. Слободянюк, М. Р. Нариманова, Н. И. Насырова,
Г. А. Мандрыкина, П. А. Кузнецов, К. В. Морозова, А. Х. Каранашева,
Л. А. Филатова, Д. М. Калиматова, Л. В. Сапрыкина, Е. Г. Гаврилова

Рецензенты:
д-р мед. наук, профессор,
профессор ФГБОУ ВО «Российский университет медицины»
Министерства здравоохранения Российской Федерации
С. Г. Цахилова;
д-р мед. наук, профессор,
профессор ФГАОУ ВО «Первый Московский государственный
медицинский университет им. И.М. Сеченова»
Министерства здравоохранения Российской Федерации
А. В. Мурашко

М54 **Методическое пособие к практическим занятиям по гинекологии (для студентов) :** учебно-методическое пособие / Ю. Э. Доброхотова, Л. А. Озолиня, А. З. Хашукоева [и др.]. – Чебоксары : Среда, 2026. – 104 с.

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Учебное пособие, разработанное сотрудниками кафедры акушерства и гинекологии медицинского факультета, основано на типовых и рабочих программах дисциплины «Акушерство и гинекология», обеспечивающих подготовку врачей общей практики, обладающих определенными знаниями, навыками и умениями в области акушерства и гинекологии, с учетом с учетом дальнейшего обучения и профессиональной деятельности по специальности «Медицина».

Целью занятий по гинекологии на 4-м и 5-м курсах университета является изучение основных клинических и физиологических особенностей репродуктивной системы женщин, особенностей нормальной менструальной функции и ее нарушений, симптомов воспалительных заболеваний женских половых органов, доброкачественных и злокачественных опухолей, генитального эндометриоза, нейроэндокринных нарушений, аномалий развития и положения женских половых органов, а также различных неотложных состояний в гинекологии, требующих неотложной медицинской помощи. Студенты должны овладеть принципами обследования пациенток, научиться распознавать физиологические и патологические процессы в женской половой сфере на основании анамнеза и объективного обследования, своевременно обращаться к специалисту и, при необходимости, оказывать неотложную гинекологическую помощь в типичной ситуации.

В пособии представлен план истории болезни, список основной и дополнительной литературы по специальности.

Пособие рекомендуется для самостоятельной работы студентов 4-го и 5-го курсов лечебных факультетов медицинских учреждений высшего профессионального образования.

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CONTENT

Topic 1. ORGANISATION OF WORK OF A GYNAECOLOGICAL HOSPITAL

Motivation:

It is necessary for a general practitioner to know the organisation of work of a gynaecological hospital. Knowledge and skills acquired during the study of this topic will help to navigate in the work of a gynaecological hospital, correctly draw up documentation for hospitalisation, interact with specialists of related professions, know the basic principles of sanitary and epidemiological regime. Currently, improving the quality of reproductive health care is a strategic direction of Russian health care. Improving the organisation and quality of gynaecological care based on the introduction of modern technologies will improve women's reproductive health, contribute to solving demographic problems, and ensure the health of women in the perimenopausal and postmenopausal periods.

Purpose of the class:

To get acquainted with the organisation of a gynaecological hospital, equipment of its structural subdivisions, basic principles of sanitary and epidemiological regime and to study the peculiarities of admission of patients to the gynaecological department, methods of anamnesis collection, to learn the basic principles of registration of a medical history.

Objectives of the class:

1. To study the theoretical basis of the organisation of gynaecological care in the Russian Federation.

2. To get acquainted with the organisation of work and therapeutic and diagnostic capabilities of a gynaecological hospital, equipment of its structural units, the basic principles of sanitary and epidemiological regime.

3. To get acquainted with the collection of anamnesis of gynaecological patients and registration of a medical history.

The topic questions addressed are:

1. Modern problems of women's reproductive health in the Russian Federation (high frequency of gynaecological diseases with chronic and recurrent course, sexually transmitted diseases, infertility, pregnancy failure, tumours and tumour-like processes in the genitalia, etc.).

2. The basic principles of organization of gynaecological care (outpatient-polyclinic, inpatient, sanatorium-resort) and the contingent of patients served by these institutions.

3. Principles and objectives of the work of the antenatal clinic:

– organising and conducting preventive examinations of the female population for the early detection of gynaecological and oncological diseases and breast pathology;

– examination and treatment of gynaecological patients using modern medical technologies, including in day care and at home (home hospital);

– screening of gynaecological patients in accordance with the standards of medical care, including rehabilitation;

– establishment of medical indications and referral for sanatorium-resort treatment for women with gynaecological diseases;

– early termination of pregnancy (if menstruation is delayed for no more than 20 days), as well as minor gynaecological operations using modern medical technologies;

– ensuring cooperation in the examination and treatment of gynaecological patients between the antenatal clinic and other health care institutions (dermatovenereological, oncological, psychoneurological, narcological and tuberculosis dispensaries), the territorial fund for medical insurance, insurance companies and the regional branch of the Social Insurance Fund of the Russian Federation;

– conducting clinical and expert assessment of the quality of medical care for women and the effectiveness of treatment and diagnostic measures;

– examination of temporary disability in connection with gynaecological diseases, issuing certificates of incapacity for work to women with gynaecological diseases in accordance with the established procedure, determining the need for and timing of temporary or permanent transfer of an employee for health reasons to another job, referring women with signs of permanent loss of working capacity to medical and social expert assessment in accordance with the established procedure;

– carrying out sanitary, hygienic and anti-epidemic measures to ensure the safety of patients and staff and prevent the spread of infections;

– carrying out measures to inform and raise the health culture of the population on various aspects of a healthy lifestyle, the preservation of women's reproductive health, and the prevention of abortion and sexually transmitted infections, including HIV infection.

4. Structure of the antenatal clinic:

a) registrar's office;

b) office of an obstetrician-gynaecologist;

c) rooms for specialised appointments:
– non-pregnancy;
– gynaecological endocrinology;
– cervical pathology;
– preservation and restoration of reproductive function;
– child and adolescent gynaecology;
– functional and prenatal diagnostics.
d) specialist offices:
– general practitioner;
– dentist;
– a doctor-psychotherapist (medical psychologist);
– lawyer;
– social worker;
– physical therapy;
– physiotherapeutic methods of treatment;
– psychoprophylactic preparation of pregnant women for childbirth;
– early detection of breast diseases.
e) other units:
– small operating theatre;
– clinical diagnostic laboratory;
– day hospital;
– in-patient centre at home;
– procedure room;
– sterilisation room;
– X-ray (mammography) room.

5. Principles and tasks of work of the gynaecological inpatient department.

The gynaecological department performs the following functions:

– providing inpatient medical care to women with diseases of the reproductive system organs;

– providing medical care in connection with artificial termination of pregnancy;

– mastering and introducing into clinical practice modern methods of diagnosis and treatment of reproductive system disorders and prevention of complications on the basis of the principles of evidence-based medicine and scientific and technical achievements;

– establishing medical indications and referring women to health-care institutions for high-tech medical care;

– conducting an expert assessment of temporary disability, issuing certificates of incapacity for work to women with gynaecological diseases, and referring women with signs of permanent loss of working capacity for medical and social expert assessment in accordance with the established procedure;

– organising and ensuring a sanitary-hygienic and anti-epidemic regime to prevent and reduce the incidence of nosocomial infections among patients and staff;

– clinical and expert assessment of the quality of medical care;

– development and implementation of measures aimed at improving the quality of treatment and diagnostic work and reducing hospital mortality from gynaecological diseases;

– conducting analyses of the causes of gynaecological diseases;

– statistical monitoring and analysis of the causes of organ-destroying operations;

– collaboration with the antenatal clinic, emergency medical aid station (department), polyclinic, children's polyclinic, and other health care institutions (tuberculosis, skin and venereal, oncology dispensaries, AIDS and infectious disease prevention and control centres).

6. Structural subdivisions of a gynaecological hospital:

a) admission department;

b) operating block (preoperative room, small operating room, large operating room);

c) intensive care ward;

d) procedure room;

e) dressing room;

f) patient rooms;

g) obstetrician-gynaecologist's office;;

h) physical therapy room;

i) physiotherapy treatment room;

j) clinical diagnostic laboratory;

k) X-ray (mammography) room;

l) sterilisation room.

7. Issues of ethics and deontology in gynaecology.

8. Modern ways of solving the problems of women’s reproductive health in the Russian Federation (high-tech methods of treatment).

Topic mastery standard.

After completion of the topic the student should know:

1. The organisation of gynaecological care in the Russian Federation.
2. The structure of a gynaecological hospital.
3. Organisation of work of separate subdivisions (dressing room, procedure room, small operating room, operating block).
4. Sanitary and epidemiological regime in a gynaecological hospital.
5. Methods of sterilisation of instruments, dressing material, linen, treatment of furniture, premises.
6. Organisational measures to identify the sick and bacterial carriers among the staff, patients of the hospital.
7. List of medical documentation (medical history, statistical report, extract from the medical history).
8. Performance indicators of a gynaecological hospital.
9. Legal and ethical norms in gynaecology.

It is necessary to be able to:

1. Independently collect anamnesis from patients admitted to a gynaecological hospital.
2. Fill out the primary medical documentation (to draw up a medical history).
3. Observe sanitary and epidemiological regime in a gynaecological hospital.
4. Carry out primary sanitary treatment of those arriving at a gynaecological hospital
5. Inform patients about the state of health, methods of examination and treatment.
6. Observe the rules of ethics and deontology in a gynaecological hospital.

Questions for self-preparation:

1. Structure of a gynaecological inpatient unit.
2. Rules of admission to work in a gynaecological hospital.
3. Rules of admission to a gynaecological hospital in emergency and planned order.
4. Equipment of a gynaecological hospital.
5. Documentation of a gynaecological hospital (medical history, statistical card, extract from the medical history).
6. Equipment of the small operating theatre of a gynaecological hospital.
7. Equipment of the operating theatre of a gynaecological hospital.
8. Sanitary and epidemiological regime and daily routine in a gynaecological hospital.
9. Indicators of gynaecological hospital activity (operational activity, bed turnover, hospitalisation terms, mortality, etc.).

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.
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3. Приказ Минздрава России от 20.10.2020 № 1130н «Об утверждении Порядка оказания медицинской помощи по профилю «акушерство и гинекология» // Зарегистрировано в Минюсте России 12.11.2020 № 60869. – URL: http://perinatcentr.ru/files/N_1130.pdf (дата обращения: 12.12.2025).

Topic 2. EXAMINATION METHODS IN GYNAECOLOGY

Motivation:

Gynaecology uses a variety of investigative techniques. Some of them are used in other specialities, but some are specific to gynaecology. In addition to the mandatory gynaecological examination, a number of additional methods of investigation are also used. In recent years, new, highly informative studies have appeared, the value of which is especially great in patients who are difficult to diagnose. A general practitioner needs to be familiar with the methods of investigation used in gynaecological patients.

Purpose of the lesson: to study the methods of examination of gynaecological patients.

Objectives of the lesson:

1. To get acquainted with the peculiarities of collecting anamnesis of gynaecological patients.
2. To study the methodology of compulsory gynaecological examination.
3. To get acquainted with additional methods of investigation used in gynaecology (laboratory, instrumental, endoscopic, X-ray, radiological, etc.).

The questions of the topic under consideration:

1. Peculiarities of collecting anamnesis of gynaecological patients. Complaints of gynaecological patients (pain, menstrual disorders, bleeding, increased abdominal volume, etc.). Menstrual function. Sexual life. Childbearing function. Gynaecological diseases.
2. General objective examination. Height and weight of the patient. Body mass index. Type of hairiness. Peculiarities of physique. Breast examination.
3. Examination of organs and systems, including the thyroid gland.
4. Special gynaecological examination. Examination of external genital organs. Examination with mirrors. Two-handed vaginal-abdominal examination. Recto-abdominal examination.
5. Instrumental methods of examination: probing the uterus, test with bullet forceps, biopsy, puncture of the abdominal cavity through the posterior vaginal arch, separate diagnostic scraping of the uterine mucosa.
6. Microbiological analyses: bacterioscopy, culture method (bacterial culturing), immunological assay (ELISA), DNA-diagnostics (PCR method). Collection of material for microbiological analyses.
7. Cytological methods of investigation: oncocytology, hormonal colpositology. Collection of material for cytological studies.

8. Tests of functional diagnostics (measurement of basal temperature, symptom of "pupil", symptom of cervical mucus tension, symptom of arborisation of cervical mucus, etc.).

9. Determination of hormone levels in blood and urine (FSH, LH, prolactin, estradiol, progesterone, testosterone, dehydroepiandrosterone-sulfate, beta-hCG, etc.).

10. Histological examination. Obtaining material in gynaecology for histological examination.

11. Modern ultrasound methods of investigation, Doppler mapping.

12. Radiological methods in gynaecology: hysterosalpingography, CT, MRI. Radioisotope methods of diagnostics.

13. Endoscopic methods of examination: colposcopy, hysteroscopy, laparoscopy.

14. Diagnostic (trial) laparotomy.

15. Medical and genetic methods of investigation.

Issues to be covered in the lecture:

This topic is studied only in the practical class, these issues are not covered in the lecture.

Standard of mastering the topic.

After completion of the topic, the student should know:

1. The scheme and features of collecting anamnesis of gynaecological patients.

2. Methods of general examination of gynaecological patients.

3. The technique of carrying out special gynaecological examination (examination of external genital organs, cervical mirror examination, vaginal examination, two-handed vaginal examination, rectovaginal examination).

4. Indications for the use and methodology of additional methods of investigation of gynaecological patients.

It is necessary to be able to:

1. Competently clarify complaints and collect anamnesis.

2. Perform a general examination.

3. Perform a special gynaecological examination (examination of external genitalia, cervical mirror examination (with Sims vaginal speculum, Cusco vaginal speculum), vaginal examination, two-handed vaginal examination, rectovaginal examination).

4. Be able to take smears for bacterioscopic and cytological examination.

5. Evaluate the examination methods performed.

Questions for self-preparation:

1. Peculiarities of collecting anamnesis of gynaecological patients.
2. Special methods of examination of gynaecological patients.
3. Colposcopy.
4. Hysteroscopy.
5. Diagnostic laparoscopy.
6. Separate diagnostic scraping of the uterine mucosa.
7. Methods of aspiration biopsy.
8. Puncture of the abdominal cavity through the posterior vaginal arch.
9. Ultrasound examination of the pelvic organs.
10. Biopsy of the cervix.
11. Probing of the uterus.
12. List the tests of functional diagnosis.
13. Hormonal tests. The purpose of their application.
14. Hysterosalpingography.
15. Hysteroscopy.

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

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Topic 3. MENSTRUAL DISORDERS

Motivation:

Menstrual function is a complex biological process under the control of a self-regulating system: cerebral cortex – hypothalamus – pituitary gland – ovaries – uterus, working on the principle of direct and feedback.

The menstrual function requires not only the full functioning of each of the five links of a single neurohormonal chain, but also their full interaction. Various pathogenic influences that disrupt the functional state of any of the links of this system, lead to menstrual disorders, manifestations of which may be hypo- or hypermenstrual syndrome. The causes of menstrual dysfunction may be frequent stress, poor nutrition (exhaustion, obesity), decreased endocrine function of the ovaries, incomplete proliferative and secretory processes in the endometrium, abnormal development of the sexual apparatus and diseases of the glands of internal secretion, severe chronic diseases of internal organs, occupational hazards, severe chronic infections. To date, the level of identification of the causes and subsequent early correction of menstrual disorders remains low. Menstrual disorders are diagnosed on an outpatient basis and, at some point, in a gynaecological hospital, where invasive methods of investigation (hysteroscopy, separate diagnostic curettage, laparoscopy), which, including histological examination, make it possible to diagnose complex variants of disorders and outline a treatment plan for the patient. Further treatment of menstrual disorders is carried out on an outpatient basis at the antenatal clinic, with the involvement of specialists from related professions, if necessary.

Purpose of the class:

To study menstrual function disorders in various syndromes (hypomenstrual, hypermenstrual, painful), modern methods of their diagnosis and treatment.

Objectives of the class:

1. To study the modern classification of menstrual disorders.
2. To study pathogenetic processes in various forms of menstrual dysfunction.
3. To get acquainted with the methods of examination of patients with various menstrual disorders: history taking, general objective examination, examination of organs and systems, special gynaecological examination, methods of functional diagnostics, instrumental, laboratory, radiological, ultrasound methods of research.

4. To study the rules of special gynaecological examination (examination of external genitalia, examination of the cervix and vagina with mirrors, two-handed vaginal-abdominal or recto-abdominal examination).

5. To get acquainted with additional methods of investigation, performed in case of menstrual disorders in the conditions of women's consultation (methods of functional diagnostics, ultrasound examination of pelvic organs, laboratory methods of research, radiography (computed tomography, magnetic resonance tomography) of the head.

6. To get acquainted with the methods of research performed in case of menstrual disorders in a gynaecological hospital (hysteroscopy, separate diagnostic scraping, hysterosalpingography, laparoscopy).

7. To study modern methods of treatment of various forms of menstrual dysfunction.

The topic questions addressed are:

1. Parameters of normal menstrual cycle, neurohumoral regulation of menstrual function, histological structure of endometrium.

2. The concept of menstrual dysfunction in preserved menstrual cycle and in disturbed menstrual cycle.

3. Classification of menstrual disorders.

4. Pathogenesis of menstrual disorders.

5. Diagnostic methods used in patients with menstrual disorders.

6. Ovarian dysfunction of juvenile, reproductive and premenopausal periods. Features of diagnostics.

7. Medication and non-medication (surgical) methods of treatment of abnormal uterine bleeding in different age periods.

8. Prevention of recurrent disorders of menstrual function.

Questions for the lecture:

1. Parameters of normal menstrual cycle.

2. Classification of disorders of menstrual function; PALM-COEIN classification.

3. The concept of hypomenstrual, hypermenstrual, pain syndrome in preserved menstrual cycle and in disturbed menstrual cycle.

4. Amenorrhoea. Classification of amenorrhoea depending on the level of damage in the system of regulation of menstrual function. Diagnosis and treatment possibilities.

5. Abnormal uterine bleeding of juvenile period, causes of occurrence, diagnosis and methods of treatment.

6. Abnormal uterine bleeding of the reproductive period, causes of occurrence, diagnosis, modern methods of treatment (medication, non-medication, surgical).

7. Abnormal uterine bleeding of the premenopausal period, causes, diagnosis, modern methods of treatment.

Topic mastery standard.

After completion of the topic, the student should know:

1. The parameters of a normal menstrual cycle.
2. Neurohumoral regulation of menstrual function.
3. Classification of disorders of menstrual function.
4. Pathogenesis of menstrual disorders.
5. Diagnostic methods used in patients with menstrual disorders.
6. Modern methods of treatment of various disorders of menstrual function.

It is necessary to be able to:

1. Independently collect anamnesis of a patient with menstrual disorders, taking into account the norms of medical ethics and deontology.
2. Fill out primary medical documentation.
3. Conduct compulsory gynaecological examination.
4. Apply methods of functional diagnostics (measurement of basal temperature, assess the symptom of "pupil", assess the symptom of cervical mucus tension).
5. Prepare a patient with menstrual dysfunction for additional non-invasive methods of diagnostics (ultrasound, radiological).
6. Prepare a patient with menstrual disorders for invasive methods of investigation (hysteroscopy, separate diagnostic scraping, laparoscopy).
7. Inform the patient about the state of health, methods of examination and treatment.

Questions for self-preparation:

1. Parameters of a normal menstrual cycle.
2. Give the concept of disorders of menstrual function.
3. Classification of disorders of menstrual function.
4. The concepts of hypomenstrual and hypermenstrual syndrome with preserved menstrual cycle, with disturbed menstrual cycle.
5. Definition of abnormal uterine bleeding at different age periods of a woman.
6. The main etiological factors leading to menstrual dysfunction.

7. Main clinical manifestations in patients with disturbed menstrual cycle.

8. Tactics of examination of patients with menstrual disorders.

9. Diagnostic methods used in menstrual disorders.

10. With what diseases should a differential diagnosis be conducted in relation to patients with menstrual disorders.

11. Tactics of management of patients with menstrual dysfunction in different age periods.

12. Methods of treatment of patients with abnormal uterine bleeding.

13. When drug treatment is carried out in patients with abnormal uterine bleeding (non-hormonal and hormonal methods of treatment).

14. Surgical methods of treatment of abnormal uterine bleeding.

Clinical case 1.

A 30-year-old female patient complained of bloody discharge from the genital tract. The last normal menstruation was on time, passed without peculiarities. In 15 days from the beginning of menstruation there appeared bloody discharge from the genital tract, which continues until now.

1. What diagnostic data should be clarified (her anamnesis)?

2. What diseases can be thought of?

3. What diseases can be suspected after examination?

4. What additional methods of investigation should be carried out to make a correct diagnosis?

5. With what diseases should a differential diagnosis be conducted?

Clinical case 2.

A 49-year-old female patient came to the antenatal clinic with complaints of bloody discharge from the genital tract for 14 days. From the anamnesis: menstruation since the age of 14, established immediately, 6–7 days, every 28–30 days, moderate, painless. Menstrual dysfunction has been noted for a year. Menstruation became irregular, with intervals of 3–-6 months. The last menstruation was 3 months ago. Extragenital pathology – grade II hypertension, hepatitis C. On examination the condition is satisfactory. The skin is of normal colour. Heart tones are clear, rhythmic. Blood pressure 160/70 mm Hg, pulse 78 beats per minute, rhythmic. Abdomen on palpation soft, painless. Gynaecological examination: external genitals are developed according to female type. On mirror examination: cervix and vaginal walls are not changed. Bloody, abundant discharge from the cervical canal.

Two-handed vaginal-abdominal examination: the cervix is cylindrical, the external cervical os is closed. Uterine body of normal size, dense, painless. Uterine appendages are not palpable. Vaginal vaults without peculiarities.

1. Make a preliminary diagnosis.
2. Where should the patient be examined and treated (as an outpatient or inpatient)?
3. What additional methods of investigation should be performed?
4. What treatment should be prescribed after the examination (non-hormonal, hormonal, surgical).

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.
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5. Дамиров, М. М. Аномальные маточные кровотечения / М. М. Дамиров. – Москва: ГЭОТАР-Медиа, 2022.
6. Клинические рекомендации «Аномальные маточные кровотечения в пубертатном периоде» // Министерство здравоохранения Российской Федерации. – 2021.

Topic 4. INFLAMMATORY DISEASES OF FEMALE GENITAL ORGANS

Motivation:

Interest in the problem of inflammatory diseases of female genital organs is associated with their high prevalence. Inflammatory diseases are diagnosed in 60–63% of gynaecological patients in outpatient clinics and 30% in hospital. According to WHO data, the frequency of sexually transmitted infectious diseases in the world reaches 251.3 million cases per year. Untimely or inadequate treatment of acute infection can contribute to the formation of a chronic inflammatory process or the development of complications in the form of infertility, chronic pelvic pain, ectopic pregnancy. These complications not only reduce the quality of life, but also cause physical suffering and may even be the cause of disability in young women.

Interest in the problem of inflammatory diseases of the female genital tract is also associated with the possibility of transmission of infection to the fetus, the development of complications of pregnancy and childbirth (premature rupture of membranes, hypotonic labour, chorioamnionitis, endometritis, etc.).

Purpose of the class:

To study the classification of inflammatory processes (by etiology, localisation and clinical course), methods of diagnosis, treatment and prevention of common forms of inflammatory diseases of female genitalia.

Objectives of the class:

1. To study the etiology, pathogenesis, clinical manifestations and medical tactics in inflammatory diseases of the lower part of the female genital organs (vulvitis, bartolinitis, colpitis, cervicitis).
2. To study the etiology, pathogenesis, clinical manifestations and medical tactics in inflammatory diseases of the small pelvis (endometritis, salpingoophoritis, pelvioperitonitis, parametritis).
3. To study the peculiarities of clinical course, diagnostics and treatment of tuboovarian masses of inflammatory etiology.

The topic questions addressed are:

1. Classification of inflammatory diseases of female genital organs.
2. Etiology and pathogenesis of inflammatory processes in women. The role of infectious agents in the occurrence of inflammatory process. Connection of the onset of the disease with hypothermia, sexual life, intrauterine manipulations, etc.

3. Peculiarities of clinical course of inflammatory processes depending on localisation.

4. Features of clinical manifestation of the disease depending on the nature of the causative agent of the inflammatory process.

5. Modern methods of diagnostics of inflammatory diseases of female genital organs. Microbiological and immunological methods.

6. Differential diagnosis of inflammatory diseases of the upper part of the female genital organs and other organs of the abdominal cavity.

7. Modern methods of treatment of inflammatory diseases of the lower part of female genital organs (vulvitis, bartolinitis, colpitis, cervicitis).

8. Choice of treatment tactics in inflammatory processes of the upper part of the female genital organs (endometritis, salpingoopharitis, pelvioperitonitis).

9. Possible complications of inflammatory diseases of female genital organs.

10. Treatment of tuboovarian formations of inflammatory etiology.

11. Prevention of inflammatory diseases of female genital organs.

Questions to be addressed in the lecture:

1. Relevance of the problem of inflammatory diseases of female genital organs.

2. Modern features of etiological factors of inflammatory diseases of the genitalia. The role of factors preventing infection and spread of infection. Risk factors for the spread of infection.

3. Clinical manifestations depending on the etiological factor. Nonspecific and specific diseases. Three stages of clinical course.

4. Basic and additional diagnostic methods.

5. Modern approaches to the treatment of inflammatory diseases. Treatment of inflammatory diseases of nonspecific etiology. Criteria of curability. Indications for surgical treatment.

6. Inflammatory diseases of female genital organs of specific etiology (gonorrhoea, chlamydia, candidiasis, tuberculosis, genital herpes, trichomoniasis).

7. Methods of prevention of inflammatory diseases of female genital organs.

Topic mastery standard.

After completion of the topic the student should know:

1. Peculiarities of the course of inflammatory diseases in modern conditions.
2. The role of microbiocenosis and antimicrobial defence factors in the development of inflammatory diseases of the female genital organs.
3. Classification of inflammatory diseases of genital organs.
4. Basic methods of diagnostics of inflammatory diseases of genitalia.
5. Features of the clinical manifestations and course of inflammatory diseases of nonspecific and specific etiology (gonorrhoea, chlamydia, tuberculosis, candidiasis, viral infections).
6. Peculiarities of management of women with bacterial vaginosis.
7. Principles of treatment of inflammatory diseases of lower and upper genitalia.
8. Indications for surgical treatment of inflammatory diseases.
9. Prevention of inflammatory diseases.

It is necessary to be able to:

1. Independently collect anamnesis of patients with inflammatory diseases of the genitalia.
2. Determine the indications for hospitalisation, provide first aid at the pre-hospital stage.
3. Outline a plan of management of patients with inflammatory diseases of the genitalia.
4. Conduct general and special gynaecological examination.
5. Take a smear from the vagina, urethra, cervical canal for bacterioscopic and bacteriological examination and PCR diagnosis of the pathogen.
6. Evaluate the results of smears for flora. According to the results of bacterioscopic examination to determine the type of vaginal microbiocenosis (normocenosis, bacterial vaginosis, non-specific and specific colpitis (gonorrhoea, trichomoniasis, candidiasis).
7. Assess the results of ultrasound examination of the pelvic organs.
8. Carry out differential diagnosis of inflammatory diseases of genitalia with acute surgical pathology.
9. Prescribe treatment to patients with various forms of inflammatory diseases of female genital organs.

Questions for self-preparation:

1. Indicators of microbiocenosis in a healthy woman of reproductive age.
2. Etiology and pathogenesis of inflammatory diseases.
3. Clinical signs of vulvitis, bartholinitis, colpitis, cervicitis.
4. Diagnosis and treatment of inflammatory diseases of the lower part of the female genital organs.
5. Clinical picture of endometritis, methods of diagnosis and treatment.
6. Clinical picture, methods of diagnostics and treatment of acute salpingoophoritis.
7. Clinical picture of complications of inflammatory process (pelvioperitonitis, purulent formations of genitalia).
8. General principles of treatment of inflammatory diseases of genitalia.
9. Principles of selection of drugs for conservative treatment.
10. Peculiarities of the course of genital chlamydia.
11. Peculiarities of the course of viral infection (HPV, CMV, HPV).
12. Genital tuberculosis (diagnosis, features of the course, tactics of management).
13. General concept of bacterial vaginosis and candidiasis, methods of diagnosis and treatment.
14. Clinical picture and peculiarities of gonorrhoea course, modern methods of diagnostics and treatment. Criteria of curability.
15. Clinical picture and peculiarities of the course of trichomoniasis in women, modern methods of diagnostics and treatment. Criteria of curability.
16. Significance of urea- and mycoplasma infection without pregnancy and possible complications in pregnancy.
17. The role of physical methods of treatment of inflammatory diseases of female genital organs.

Clinical case 1.

A 24-year-old female patient complained of bleeding and contact blood discharge. Menstrual function is not disturbed. Sexual life since the age of 23, married, no contraception. There were no pregnancies over 8 months. She denies gynaecological diseases. She became ill 3 months ago, when she had white discharge and contact bloody discharge. When examining the cervix with mirrors – the surface around the external cervical os is bright red, covered with pus-like discharge. At vaginal examination – on palpation the cervix is of normal con-

sistency, the external os is closed. Uterus and appendages – without peculiarities. Discharges – white discharge with an admixture of blood. Diagnosis? Management plan?

Clinical case 2.

A 29-year-old patient was admitted with complaints of fever, general weakness, lower abdominal pain. She had undergone an induced abortion 8 days before and was discharged the day after the abortion. On examination: her condition is satisfactory, pulse 80 beats per minute, temperature 38,2°C. The abdomen is soft, painful on palpation in the lower parts. There are no symptoms of peritoneal irritation. Gynaecological examination: the cervix is hyperaemic, abundant pus-like discharge from the cervical canal. On palpation – the cervix is of normal consistency, the external os is closed, uterine body slightly larger than normal, of soft consistency, painful on palpation and displacement. The appendages are not detected. Diagnosis? Management plan?

Clinical case 3.

A 26-year-old patient was brought by ambulance with complaints of sharp pains in the lower abdomen, chills and fever. Gynaecological history: she had chronic salpingoophoritis for 6 years with frequent exacerbations, for which she was repeatedly treated in hospital. She fell ill a few days ago after hypothermia. On admission: her condition is satisfactory, pulse 88 beats per minute, temperature 37,6°C. The tongue is moist, slightly covered with whitish plaque. The abdomen is not distended, participates in the act of breathing. Palpation is painful in the lower parts, no symptoms of peritoneal irritation. On gynaecological examination – displacement behind the cervix is sharply painful, the uterine body of normal size, limited mobility, sensitive on palpation. Right appendages are not defined. On the left side and somewhat behind, a mass is palpated, limitedly mobile, sharply painful, of dense consistency, with areas of softening, 4 cm × 9 cm in size. The vaginal vaults are flattened. Diagnosis? Management plan?

Clinical case 4.

A 37-year-old patient was admitted with complaints of lower abdominal pain, frequent urination, high fever. Menstrual function is not disturbed. The last menstruation was 2 days ago. She became acutely ill after a casual sexual intercourse. There appeared pain in the lower abdomen, chills, temperature 39°C. On palpation the abdomen is sharply painful in the lower parts, positive symptoms of peritoneal irri-

tation. At vaginal examination the uterus and appendages are not clearly contoured due to sharp pain and tension of abdominal muscles. The discharge is profuse, pus-like. Diagnosis? Management plan?

Clinical case 5.

A 23-year-old female patient. Complaints of heavy discharge, itching, burning. She fell ill 5 days ago after a sexual intercourse. Menstrual cycle is not disturbed. The temperature is normal, pulse 76 beats per minute, BP 120/80 mm Hg. Examination with mirrors – vaginal mucosa is sharply hyperaemic, the discharge is abundant, yellowish-green in colour, foaming. Vaginal examination: uterus and appendages without peculiarities. Diagnosis? Management plan?

Clinical case 6.

A 31-year-old patient was admitted to the gynaecological department with complaints of lower abdominal pain and increased body temperature. Menstruation since the age of 14 has been irregular, heavy, painful. Sexual life since the age of 20, without protection. At the age of 14 she suffered from pleurisy. For 3 years she has been troubled by lower abdominal pain, fatigue, and at times subfebrile temperature. Twice-inpatient treatment for inflammation of the uterine appendages. Vaginal examination: the uterus painful during traction, normal size, dense. Appendages on both sides thickened, painful on palpation. The parametrium was thickened. The patient was prescribed a course of antibacterial therapy with ampiox and metronidazole. The following week the patient's condition continued to worsen, pain increased, body temperature did not decrease, in connection with which a diagnostic laparoscopy was performed. The examination revealed: 200 ml of serous effusion in the abdominal cavity, signs of adhesion process. The fallopian tubes are shortened and thickened, there are calcinates on their surface, there are millet-like rashes on the peritoneum. Diagnosis? Management plan?

Clinical case 7.

A 25-year-old patient came to the gynaecological department for infertility. Menstruation since the age of 13, irregular, scanty. Sexual life since the age of 20 without protection, but she could not get pregnant. At the age of 21 she suffered from tuberculous pleurisy. Metrosalpingography (MSG) was performed to determine the patency of the fallopian tubes. On MSG: segmented fallopian tubes in the form of a “pearl necklace” with diverticula and non-homogenous shadows in the distal parts. Diagnosis? Management plan?

Clinical case 8.

The patient, 38 years old, with a history of 2 births and 3 abortions. Contraception with IUD (intrauterine device) for 5 years. Menstrual function is not disturbed. Ten days after the end of the last menstruation there appeared pain in the lower abdomen and abundant discharge of purulent character from the genital tract, in connection with which she went to the doctor. Her general condition was satisfactory, skin and mucous membranes were of normal colour. Temperature 37,7°C, L – $9{,}4\times10^9$/l. On examination: abdomen is soft, painless, no peritoneal symptoms. Gynaecological examination with mirrors reveals a cylindrical cervix, control threads of IUD and moderate mucopurulent discharge are visualised from the cervical canal. Two-handed examination – the cervix without peculiarities, uterus slightly larger than normal size, soft-elastic consistency, mobile, moderately painful. The appendages are not enlarged, painless on palpation. The vaults are deep. Diagnosis? Management plan?

Clinical case 9.

A 28-year-old patient presented with complaints of lower abdominal pain, more on the left side, of a nagging nature. Past medical history: 2 months ago – medical abortion at 9–10 weeks, complicated by postabortion endometritis. For a month she was bothered by pain in the lower abdomen of a nagging character. Two-handed examination: uterine body and right appendages are unchanged. In the area of the left appendages there is a rounded mass of soft-elastic consistency up to 5–6 cm in diameter, painful on palpation. Ultrasound findings: in the area of the left ovary – a unicameral mass with a dense capsule with suspension, up to 5 cm in diameter. Diagnosis? Management plan?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

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4. Клинические рекомендации «Воспалительные заболевания органов женского таза» // Министерство здравоохранения Российской Федерации. – 2021–2023.

Topic 5. ECTOPIC PREGNANCY

Motivation:

Ectopic pregnancy is a serious threat to the health and life of a woman as it is terminated early and is accompanied by intra-abdominal haemorrhage. Without emergency care and if not diagnosed in time, it can be one of the causes of maternal mortality.

Purpose of the class:

To study the pathogenesis, clinical presentation, diagnosis and treatment of ectopic pregnancy, emergency measures for intra-abdominal haemorrhage, prevention of ectopic pregnancy.

Objectives of the class:

1. To study different clinical presentation of ectopic pregnancy.
2. To study the methods of ectopic pregnancy diagnosis, including pelvic ultrasound, abdominal puncture through the posterior vagina, histological examination of uterine mucosal scrapings, determination of β-HCG level in the patient's blood in dynamics, laparoscopy.
3. To study the accesses and types of surgical interventions in ectopic pregnancy, indications for surgery, possible complications.
4. To study the possibilities of conservative methods of treatment of ectopic pregnancy, the drugs used, their doses, methods of administration, duration of use.
5. To learn to perform emergency measures for intra-abdominal haemorrhage, shock and to deal with the consequences of acute blood loss.
6. To get acquainted with the rehabilitation after ectopic pregnancy and its prevention.

The topic questions addressed are:

1. Give the definition of ectopic (extrauterine) pregnancy.
2. Classification of ectopic pregnancy depending on the localisation of the foetal egg (tubal, ovarian, cervical, abdominal, in the rudimentary horn of the uterus).
3. Etiology and pathogenesis of ectopic pregnancy.
4. Clinical picture and diagnosis of tubal abortion.
5. Clinical picture and diagnosis of uterine tube rupture.
6. Clinic picture and diagnosis of progressive tubal pregnancy.
7. Differential diagnosis of ectopic pregnancy with other abdominal diseases (ovarian apoplexy, inflammatory diseases of the uterine appendages, acute appendicitis, torsion of the ovarian tumour stalk, spontaneous miscarriage, abnormal uterine bleeding).

8. Clinical picture of termination of rare forms of ectopic pregnancy.

9. Treatment of ectopic pregnancy:

1) operative (laparoscopy, laparotomy):

a) radical (tubectomy);

b) organ-preserving (conservative-plastic operations: extrusion of the foetal egg ["milking"], tubotomy, resection of a segment of the fallopian tube).

2) conservative methods of treatment of ectopic pregnancy – local application of medications (methotrexate, RU-486, prostaglandins, vinblastine) under endoscopic or ultrasound control.

10. Rehabilitation measures and prevention of ectopic pregnancy.

The questions for the lecture are:

1. Classification of ectopic pregnancy depending on the localisation of the foetal egg (tubal, ovarian, cervical, abdominal, in the rudimentary horn of the uterus).

2. Etiology and pathogenesis of ectopic pregnancy.

3. Diagnosis of ectopic pregnancy.

4. Treatment of ectopic pregnancy:

1) operative methods (radical and organ-preserving);

2) conservative methods of treatment of ectopic pregnancy.

Topic mastery standard.

After completion of the topic, the student should know:

– classification of ectopic pregnancy;

– etiology and pathogenesis of ectopic pregnancy;

– diagnostic methods of ectopic pregnancy, indications and contraindications to each method, the importance of each of them;

– clinical features of progressive and disturbed ectopic pregnancy depending on the localisation of the foetal egg;

– differential diagnosis of ectopic pregnancy with other acute abdominal diseases (ovarian apoplexy, inflammatory diseases of the uterine appendages, acute appendicitis, torsion of the ovarian tumour pedicle, spontaneous miscarriage, abnormal uterine bleeding);

– modern methods of treatment of ectopic pregnancy: surgical and conservative methods;

– rehabilitation measures and methods of preventing ectopic pregnancy.

You should be able to:

– competently collect a history from a patient with suspected ectopic pregnancy;

– conduct a gynaecological examination;

– make a plan of examination of the patient – to assess the ultrasound data, the results of abdominal puncture through the posterior vaginal arch, the results of histological examination of the uterine mucosa scraping;

– determine the treatment tactics for a particular patient;

– demonstrate on a moulage the stages of surgery;

– be able to deal with the consequences of acute blood loss and haemorrhagic shock.

Questions for self-preparation:

1. Define ectopic pregnancy.
2. The main aetiological factors of ectopic pregnancy.
3. Classification of ectopic pregnancy depending on the localisation of the foetal egg.
4. Methods of diagnosis of ectopic pregnancy.
5. What is the nature of the punctate obtained from the abdominal cavity in disturbed tubal pregnancy?
6. List the features of histological changes in the endometrial scraping in tubal pregnancy.
7. Clinical picture of advanced tubal pregnancy.
8. Clinical picture of tubal abortion.
9. Clinical picture of fallopian tube rupture.
10. Clinical picture of termination of rare forms of ectopic pregnancy.
11. Differential diagnosis of ectopic pregnancy.
12. Surgical methods of treatment of ectopic pregnancy, accesses, radical method, conservative-plastic variants of surgical treatment.

Clinical case 1.

Patient M., 27 years old. Complaints of nagging pains in the lower abdomen and oozing blood, which appeared after the delay of expected menstruation for 20 days. Laparoscopy revealed: blood smears in the pelvis, left fallopian tube thickened in the ampullary section, purple-blue colour, dark liquid blood coming from the fimbrial section into the abdominal cavity, accumulating in the posterior uterine space. Suggested diagnosis? Management plan?

Clinical case 2.

Patient U., 36 years old. She has a history of 4 abortions without complications. She notes a delay of expected menstruation for 2 weeks. She became acutely ill: she briefly lost consciousness due to pain in the lower abdomen. Pale, lethargic, pulse 120 beats per minute, BP 80/40. The abdomen was soft on palpation, painful in the lower parts, Kulenkampf's symptom was expressed. Cervical traction is sharply painful, because of this it is impossible to clearly palpate the uterine body and appendages. Pitting edema (pastosity) and sharp soreness of the posterior vault are noted. Bloody discharge. What is your diagnosis? Make a management plan.

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

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4. Клинические рекомендации «Эктопическая беременность» // Министерство здравоохранения Российской Федерации. – 2021–2023.

5. Дамиров, М. М. Эктопическая беременность / М. М. Дамиров. – Москва: ГЭОТАР-Медиа, 2023.

Topic 6. INFERTILE COUPLE

Motivation:

At present infertility affects about 10–15% of married couples. It is very difficult to identify the patient from the couple, because both spouses have reduced fertility in about one third of cases. Often infertility develops as a result of one or multiple abortions, inflammatory diseases of the female and male genital organs, caused by sexually transmitted infections. Insufficient effectiveness of methods aimed at restoring natural human fertility stimulated the development of artificial insemination methods. At present, assisted reproductive technologies have achieved high results in terms of scale and increase in the number of artificial insemination methods themselves. Thus, they include:

– IVF (in vitro fertilisation) and EP (embryo transfer) into the uterus;

– transfer of oocytes and sperm into the fallopian tubes;

– obtaining sperm by aspiration from the testis and its appendages;

– fertilisation of the oocyte by intracytoplasmic injection of spermatozoa into the zona pellucida of the oocyte.

The most common methods are IVF and PE, which are widely used today. The efficiency of IVF or the frequency of pregnancy in different clinics varies from 20% to 60% of cases and depends on many factors, such as the health status of the woman, her age, etc.

Purpose of the class:

To study the pathological condition called “infertile couple”, modern methods of diagnosis of female and male infertility, methods of its treatment, including in vitro fertilisation.

Objectives of the class:

1. To study the background processes preceding infertile couple in women (presence of chronic inflammatory diseases of fallopian tubes, ovaries, cervix and uterine body).

2. To study different forms of infertility (endocrine, tubal-peritoneal, immunological) and its modern classification.

3. To study the methods of examination of patients with infertility.

4. To study the possibilities of treatment in modern conditions of female and male infertility.

5. To get acquainted with the technique of in vitro fertilisation and embryo transfer currently used.

6. To determine the possibilities of preventive measures to prevent the development of infertile couple.

The topic questions addressed are:

1. Normal anatomy and physiology of uterus, histological structure of endometrium in different phases of menstrual cycle, functional capabilities of fallopian tubes and ovaries.
2. Classification of male and female infertility; terminology currently used in assisted reproductive technologies (IVF, PE, ECSI).
3. Current diagnostic methods for both partners used in infertile couple (hormonal methods, HSG, hysteroscopy, laparoscopy, radioisotope scanning).
4. Treatment methods and modern approaches to therapy of infertile couple. The use of assisted reproductive technologies (IVF, PE, ECSI), indications and contraindications for their use.
5. Real possibilities of assisted reproductive technologies (IVF, PE, ECSI).

The questions for the lecture are:

1. Normal anatomy and physiology of the uterus and uterine appendages. Histological structure of endometrium, structure of fallopian tubes and ovaries, condition of internal genitalia in different age periods of a woman.
2. Classification of female infertility (primary, secondary, absolute female infertility). Causes and factors predisposing to infertility.
3. Classification of male infertility. Factors leading to infertility in men. Combined forms of infertility.
4. Endocrine infertility. Types, pathogenetic mechanisms, peculiarities of endocrine infertility, methods of treatment.
5. Methods of diagnostics of infertility in a married couple, basic principles of examination.
6. Methods of infertility treatment, treatment algorithm (conservative methods, surgical methods), anti-inflammatory therapy, operative laparoscopy.
7. Goals and principles of infertility treatment, indications for the use of assisted reproductive technologies.
8. Auxiliary reproductive technologies (IVF, PE, transfer of oocytes and spermatozoa into fallopian tubes, obtaining spermatozoa by aspiration from the testis and its appendages, fertilisation of the ovum by intracytoplasmic injection of spermatozoa into the zona pellucida of the oocyte).
9. Prevention of infertility.

The standard for mastering the topic.

After completion of the topic, the student should know:

1. Etiology and pathogenesis of infertile couple (female infertility, male infertility, mixed form).
2. Modern classification of infertile couple.
3. Modern methods of examination, stages, algorithms.
4. Possibilities of prevention of infertile couple.
5. Modern methods of treatment and reproductive technologies (IVF, PE, ECSI, etc.).
6. Indications for preimplantation diagnostics, its algorithm.
7. Methods of surgical treatment of infertility (with tubal-peritoneal factor, PCOS, etc.) their advantages and disadvantages.

It is necessary to be able to:

1. Competently collect anamnesis.
2. Be able to decipher basal temperature graphs (for anovulation, insufficiency of the corpus luteum).
3. Perform a gynaecological examination.
4. Interpret a spermogram.
5. Interpret ultrasound data of the pelvic organs.
6. Evaluate the result of hysterosalpingography.
7. To be able to competently determine indications and contraindications for IVF.

Questions for self-preparation:

1. Normal anatomy and physiology of the uterus and its appendages.
2. Histological structure of the endometrium in different phases of the menstrual cycle.
3. Functional capabilities of fallopian tubes and ovaries.
4. Modern classification of infertility.
5. The main etiological points of infertile couple.
6. Management of couples suffering from infertility.
7. Modern methods of diagnostics of both partners used in infertile couple (hormonal methods, hysterosalpingography, laparoscopy, radioisotope scanning).
8. Management and treatment of various forms of infertility (endocrine, tubal-peritoneal, immunological).

9. Possibilities, advantages and disadvantages of assisted reproductive technologies IVF, ECSI, PE.

10. Possibilities of prevention of infertile couple development.

Clinical case 1.

A 30-year-old female patient complained of infertility for 3.5 years from the beginning of sexual life without contraception. Examination revealed: height 158 cm, weight 93 kg, pronounced hypertrichosis. Menstruation since the age of 16, irregular cycle every 30–50 days, 3–4 days, moderate, painless.

1. What anamnestic data should be found out?

2. What diseases can be thought of?

3. What diseases can be suspected after examination?

4. What additional methods of investigation should be carried out to make a diagnosis?

5. What diseases should this pathology be differentiated from?

Clinical case 2.

The patient is 27 years old, she came because of infertility in marriage for 4 years. From anamnesis: menstruation since 13 years old, established immediately, 4–5 days, every 28–30 days, moderate, painless. Sexual life since the age of 14, constant change of sexual partners. For the last 5 years she was repeatedly treated in a gynaecological hospital for chronic bilateral salpingoophoritis. According to hysterosalpingography, both fallopian tubes are not passable. Objective examination: the condition is satisfactory, skin and visible mucous membranes are of normal colour. Heart tones are clear, the rhythm is regular. Arterial pressure – 120/70 mmHg. Gynaecological examination: external genitalia are correctly developed. Cervical mirror examination: cervix and vaginal walls are not changed, mucous discharge. Two-handed examination: the cervix is cylindrical, the external cervical os is closed. The uterine body is of large size, sedentary, painless. The appendages on both sides are thickened, sensitive on palpation. The vaults are deep.

1. Make a diagnosis.

2. Where should the patient be treated (in an inpatient or outpatient facility)?

3. What additional methods of investigation should be performed (hormonal profile, clinical tests, diagnostic laparoscopy, pelvic ultrasound)?

4. What treatment should be prescribed (anti-inflammatory, surgical)?

5. Is it possible to use assisted reproductive technologies (IVF, PE, ECSI) in this case?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

3. Кулаков, В. И. Гинекология: национальное руководство / В. И. Кулаков, Г. М. Савельева, И. Б. Манухин. – Москва: ГЭОТАР-Медиа, 2022.

4. Клинические рекомендации «Женское бесплодие (современные подходы к диагностике и лечению)» / Министерство здравоохранения Российской Федерации. – 2021.

Topic 7. UTERINE MYOMA

Motivation:

Uterine myoma is a common disease in women in the reproductive, premenopausal and postmenopausal periods. Uterine myoma is a disease that can reduce a woman's ability to work, affect reproductive function, and complications arising in its presence (bleeding, necrosis of myomatous node, etc.) can threaten the life of the patient. Currently, various methods of uterine myoma treatment are used, both conservative and surgical. In addition, in recent years, high-tech methods of treatment have become widely used (hysteroresectoscopy with myoma resection; uterine artery embolization; FUS-ablation of myoma, etc.). Given the variety of treatment methods used, it is necessary to know in which situations which methods are optimal, and to know indications and contraindications to each of these methods of treatment.

Purpose of the class:

To study the clinic, diagnosis and modern methods of treatment of uterine myoma in its various localisations, as well as complications that arise in patients with this disease.

Objectives of the class:

1. To study the classification of uterine myoma.
2. To study the etiology and pathogenesis of uterine myoma.
3. To study the clinical picture of uterine myoma in different periods of life of patients.
4. To study modern methods of diagnostics of uterine myoma.
5. To get acquainted with the main methods of uterine myoma treatment (conservative, operative).
6. To have an idea about possible complications of uterine myoma (profuse uterine bleeding, appearance of myomatous submucosal node, impaired nutrition in the node, necrosis of the node, torsion of the stalk of the subserous node), requiring emergency medical care.
7. To get acquainted with new high-tech methods of uterine myoma treatment (hysteroresectoscopic myoma resection for submucosal uterine myoma node, uterine artery embolization, myolysis with different types of energy).

Topic issues addressed:

1. Definition of uterine myoma.
2. Classification of uterine myoma.
3. Etiology and pathogenesis of uterine myoma.
4. Clinical picture of uterine myoma depending on the localisation of nodes.
5. Modern methods of diagnostics of uterine myoma.
6. Modern approaches to the treatment of uterine myoma. Conservative and surgical methods of treatment. Possibilities of new high-tech methods of treatment of uterine myoma.
7. Uterine myoma and pregnancy.
8. Prevention of uterine myoma and its complications.

Questions for the lecture:

1. Definition of uterine myoma. Frequency of occurrence of this disease in women of different ages.
2. Modern hypotheses of uterine myoma etiology.
3. Theories of pathogenesis of uterine myoma.
4. Diagnosis of uterine myoma, including invasive methods of research.
5. Choice of the method of treatment of uterine myoma in a particular patient.
6. Indications for surgical treatment. Types of surgeries used for uterine myoma.
7. Possibilities of non-operative treatment of uterine myoma and in what situation it can be recommended.
8. High-tech methods of uterine myoma treatment.

Standard of mastering the topic.

After completion of the topic, the student should know:

1. Etiology and pathogenesis of uterine myoma.
2. Modern classification of uterine myoma.
3. Modern methods of diagnosis of uterine myoma.
4. Methods of differential diagnosis of uterine myoma.
5. Indications for surgical treatment.
6. Methods of emergency care in complications associated with uterine myoma.

It is necessary to be able to:

1. Competently collect anamnesis of a patient with uterine myoma.
2. Outline the plan of examination.
3. Correctly interpret the results of the examination and make a diagnosis.
2. Carry out differential diagnosis.
3. Select the most appropriate method of treatment for a particular patient.
4. Write out prescriptions of medications used for the treatment of uterine myoma.
5. Make a plan of rehabilitation measures after surgery for uterine myoma.
6. Explain to the patient the results of the examination and the implication of the proposed method of treatment.

Questions for self-training:

1. What is characteristic of uterine myoma with submucosal node location?
2. With what diseases should differential diagnostics be carried out in uterine myoma?
3. Name the indications for conservative treatment in uterine myoma.
4. What are currently known methods of surgical treatment for uterine myoma?
5. Name the indications for total and subtotal hysterectomy of uterine myoma.
6. What are the indications for myomectomy and what is the preferred access?
7. What are the peculiarities of the course of pregnancy in uterine myoma?
8. At what localisation of myomatous node do patients more often have infertility and pregnancy failure?
9. What is the management of patients with uterine myoma in postmenopause?
10. In what cases uterine artery embolization is used in uterine myoma?
11. Name the indications and contraindications to FUS-ablation of uterine myoma.

Clinical case 1.

A 50-year-old patient was admitted to the gynaecological department with complaints of bloody discharge from the genital tract. The last normal menstruation was 2 years ago. For the last two years she has been suffering from bleeding after delayed menstruation for 2–3 months. Conservative treatment was not carried out due to intolerance to hormonal preparations. A gynaecological examination revealed an enlarged, dense, lumpy uterus of the size of up to 9 weeks' gestation. The appendages on both sides were undetectable. Moderate bloody discharge from the cervical canal. A separate diagnostic scraping was performed. Diagnosis? Management plan?

Clinical case 2.

A 48-year-old patient is to undergo surgical treatment for multiple uterine myomas of the size corresponding to 18 weeks of pregnancy. She complains of weakness. For the last 6 months she has been experiencing heavy and prolonged menstruation. Skin and visible mucous membranes are pale, pulse 84 beats per minute. BP 110/60 mm Hg. Hb – 76 g/l.

Diagnosis? What investigations should be performed? What should the treatment tactics be for this patient? What should the preoperative preparation be? What is the scope of the operation?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

3. Кулаков, В. И. Гинекология: национальное руководство / В. И. Кулаков, Г. М. Савельева, И. Б. Манухин. – Москва: ГЭОТАР-Медиа, 2022.

4. Клинические рекомендации «Миома матки» // Министерство здравоохранения Российской Федерации. – 2020–2022.

Topic 8. ENDOMETRIOSIS

Motivation:

Endometriosis occupies the third place in the structure of gynaecological diseases after inflammatory processes and uterine myoma. In recent years there has been an increase in the incidence of endometriosis. Clinical manifestations of endometriosis are diverse and correlate to a small extent with the prevalence of the disease assessed at laparoscopy. Chronic pelvic pain in endometriosis is difficult to treat and leads to psycho-emotional disorders, reduced performance and deterioration in the quality of life of women. A general practitioner should be aware that endometriosis should be suspected in all women of reproductive age presenting with complaints of dysmenorrhoea or chronic pelvic pain.

Purpose of the class:

To study the clinic, diagnosis and modern methods of treatment of endometriosis in its various localisations, as well as complications that arise in patients with this disease.

Objectives of the class:

1. To study the etiology and pathogenesis of endometriosis.
2. To get acquainted with the classification of endometriosis.
3. To study the clinical manifestations of endometriosis of various localisations.
4. To get acquainted with the methods of diagnostics of endometriosis, including ultrasound methods, hysteroscopy, laparoscopy. Differential diagnosis in endometriosis.
5. To study modern approaches to the treatment of endometriosis, surgical and conservative methods of treatment in small and large forms of endometriosis.
6. To get acquainted with the methods of rehabilitation of gynaecological patients with endometriosis and prevention of endometriosis.

Topic issues addressed:

1. Definition of endometriosis.
2. Theories of endometriosis.
3. Classification of endometriosis.
4. Cervical endometriosis – risk factors, clinical presentation, diagnostics, differential diagnostics, methods of treatment.
5. Adenomyosis – clinical presentation, diagnosis, differential diagnosis, methods of examination, treatment (conservative and surgical).

6. Endometriosis and endometrioid cysts of ovaries – clinical presentation, diagnostics, differential diagnostics, methods and accesses of surgical treatment, antiretroviral therapy, prognosis.

7. Endometriosis of sacro-uterine ligaments and retrocervical endometriosis – clinical presentation, diagnostics, differential diagnostics, peculiarities of examination, treatment, prognosis.

8. Rehabilitation after surgical treatment: general strengthening therapy, after surgical treatment – 3–6 months of OCPs (oral contraceptive pills), progestins, antigestagens, antigonadotropins, agonists of gonadotropin-releasing hormone, immunomodulatory drugs, hepatoprotectors.

9. Prevention of endometriosis after abortion (taking OCPs), cervical manipulations, during exacerbation of inflammatory diseases, gynaecological surgeries, etc.

Questions for the lecture:

1. Definition of endometriosis.
2. Historical aspects.
3. Frequency of endometriosis.
4. Pathogenesis – 3 main theories.
5. Pathomorphology of endometriosis.
6. Classification of endometriosis.
7. Extragenital endometriosis (topographically unrelated to the genitals).
8. Clinical features of endometriosis.
9. Cervical endometriosis.
10. Endometriosis of the uterine body.
11. Endometriosis and endometrioid cysts of the ovaries.
12. Endometriosis of the sacrouterine ligaments.
13. Endometriosis of vagina and perineum.
14. Retrocervical endometriosis.
15. Small forms of endometriosis.
16. Diagnosis of endometriosis.
17. Treatment of endometriosis.
18. Rehabilitation of patients with endometriosis.
19. Prognosis in endometriosis.

The standard for mastering the topic.

After completion of the topic the student should know:

1. Causes of occurrence and predisposing factors for endometriosis.
2. Classification of endometriosis.
3. Clinical presentation and diagnostics of endometriosis.
3. Modern approaches to the treatment of endometriosis.
4. Methods of treatment of endometriosis depending on the localisation.
5. Prevention of endometriosis.

It is necessary to be able to:

1. Purposefully collect anamnesis of a patient with endometriosis taking into account modern views on the etiopathogenesis of this disease.

2. Diagnose endometriosis according to the data of anamnesis, objective examination of the patient and the results of additional methods of research, taking into account the knowledge of classification.

3. Be able to choose a rational method of therapy taking into account the age of the patient, localisation and degree of spread of endometriosis, attitude to reproductive function, premorbid background, severity of clinical manifestations, duration of the disease, presence of concomitant genital and extragenital pathology.

4. To draw up a plan of preventive measures aimed at preventing the development of endometriosis.

Questions for self-study:

1. Etiology and pathogenesis of endometriosis.
2. Classification of endometriosis.
3. Clinical symptoms of genital endometriosis.
4. Clinical symptoms of extragenital endometriosis (postoperative scar, umbilicus, bladder, bowel).
5. Diagnosis of endometriosis.
6. Indications for surgical treatment of endometriosis.
7. Anti-recurrence therapy of endometriosis.

Clinical case 1.

A 34-year-old female patient complained of aching lower abdominal pain. From anamnesis: menstruation since the age of 14, 4–5 days, in the last 2 years – painful, moderate, regular. For a year she has been bothered by aching pains in the lower abdomen, increasing on the eve and during menstruation. Two-handed examination: uterine body and right appendages without peculiarities. To the left and behind the uterus there is a mass up to 5 cm in diameter, of taut elastic consistency, immobile,

adherent to the surrounding tissues, painful on palpation. At examination in dynamics some increase in the size of the mass on the eve of menstruation is noted. Ultrasound findings: in the area of the left ovary, a fluid mass with indistinct contours, thickened shell, unicameral, up to 5–6 cm in diameter. Diagnosis? Management plan?

Clinical case 2.

A 37-year-old female patient came to the antenatal clinic with complaints of weakness, dizziness, nagging pains in the lower abdomen, decreased ability to work, slight bloody discharge from the genital tract. Over the last 2 years menstruation has become 7–8 days, painful. After menstruation there is weakness and dizziness. Objective examination: the condition is satisfactory, the skin is pale. PS – 90 beats/min, BP – 115/75 mm Hg. The abdomen is soft, moderately painful in the lower parts. There are no symptoms of peritoneal irritation. Stool and urination are not disturbed. On mirror examination: vaginal walls and cervix are clean, insignificant bloody, discharge. Two-handed examination: the cervix is cylindrical, movements behind the cervix are sensitive. The uterus is enlarged up to 10-11 weeks of pregnancy, dense, lumpy, painless. The appendages are without peculiarities. The vaults are deep. Blood tests: haemoglobin 82 g/l, leukocytes $7{,}8\times10^9$/l, erythrocyte sedimentation rate – 5 mm/hour. Diagnosis? Management plan?

Clinical case 3.

A 32-year-old female patient came to the antenatal clinic with complaints of dark bloody discharge from the genital tract 3–5 days before menstruation and pain in the lower abdomen during menstruation. These symptoms have been present for the last year. She has been sexually active since the age of 22. There have been 3 pregnancies. The first one ended in normal labour, the other pregnancies – in voluntary abortions. Gynaecological diseases: “erosion” of the cervix after the childbirth, treatment – diathermocoagulation. Gynaecological status – when examining with mirrors on the cervix there are traces of coagulation and a few “eyes” of blue-buggy colour. Two-handed examination – cervix of normal density, spherical uterus, painless, slightly larger than normal. The appendages are not palpated. Diagnosis? Management plan? What method should be used to start the examination of the cervix? What explains the change in the shape and size of the uterine body?

Clinical case 4.

A 37-year-old patient came to the doctor with complaints of pain in the area of the postoperative scar and bloody discharge from it, especially before and after menstruation. In addition, she was bothered by pain in the lower abdomen, more on the right side. Medical history: 3 years ago – appendectomy. Postoperative period was without complications, healing by primary tension. Menstruation in the last 4 years became more abundant, sharply painful. Objective examination: the condition is satisfactory, pulse – 80 beats per minute, BP – 120/80 ml Hg. No pathology of the organs. Within the thickness of the postoperative scar there are dense painful nodules, the skin over them is livid in colour. The abdomen is soft, moderately painful, more on the right side. Gynaecological examination: the cervix is not changed, the uterine body is round, dense, painless. Appendages are not defined on the left side. On the right and behind the uterus a painful mass 7×8×6 cm, limitedly mobile, is palpated. The vaginal vaults are deep. The discharge from the genital tract is mucous. Diagnosis? Additional examination and treatment?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

3. Кулаков, В. И. Гинекология: национальное руководство / В. И. Кулаков, Г. М. Савельева, И. Б. Манухин. – Москва: ГЭОТАР-Медиа, 2022.

4. Гинекология: практикум / под ред. В. Е. Радзинского. – Москва, 2020.

5. Клинические рекомендации «Эндометриоз» // Министерство здравоохранения Российской Федерации. – 2020. – URL: https://cr.minzdrav.gov.ru/schema/259_1 (дата обращения: 12.12.2025).

6. ESHRE Endometriosis Guideline Development Group. Endometriosis: guideline // European Society of Human Reproduction and Embryology. – 2022. – 192 p. – URL: https://www.eshre.eu/Guidelines-and-Legal/Guidelines/Endometriosis-guideline (date of access: 12.12.2025).

Topic 9. NEUROENDOCRINE SYNDROMES

Motivation:

Neuroendocrine gynaecological syndromes are accompanied by a variety of neuro-psychiatric, autonomic-vascular and metabolic-endocrine disorders. This determines their diverse clinical symptomatology. Patients with NES often complain to doctors of various specialities – neurologists, endocrinologists, therapists, psychiatrists. Severe forms of certain neuro-endocrine syndromes (menopausal, premenstrual, postcastration syndrome) lead to persistent impairment of working capacity and deterioration of the quality of life of women. Knowledge and skills acquired during the study of this topic will help the doctor to correctly conduct examination of patients with NES, interpreting the results of research, establish a diagnosis and choose the optimal method of treatment.

Purpose of the class:

To study pathological conditions accompanying "neuroendocrine metabolic syndromes" such as, panhypopituitarism (associated with necrosis of the pituitary gland, impaired haemocirculation in the postpartum period (Sheehan's syndrome), psychogenic anorexia (hypotrophy syndrome), primary hypothalamic hypogonadism (Kalman syndrome), premenstrual syndrome, polycystic ovary syndrome (PCOS), hyperprolactinaemia, postcastration syndrome, perimenopause pathology.

Objectives of the class:

1. To get acquainted with the methods of examination of patients with neuroendocrine disorders.
2. To study the main neuroendocrine syndromes (premenstrual, menopausal, polycystic ovary syndrome) and the main symptom complex accompanying the development of these syndromes.
3. To study various classifications pertaining to various forms of neuroendocrine syndromes.
4. To get acquainted with the possibilities of modern diagnostics of various forms of neuroendocrine disorders (hormonal studies, physical examinations, methods of additional diagnostics, ultrasound of pelvic organs, video laparoscopy).
5. To get acquainted with the possibilities of modern treatment of various forms of neuroendocrine syndromes in cooperation with other specialists (hormone therapy for various types of neuroendocrine disorders, psychotherapy, participation of endocrinologist, therapist, etc.).

Topic issues addressed:

1. The concept of neuroendocrine syndromes, definitions of premenstrual, menopausal, postcastration, polycystic ovary syndrome, adrenogenital syndrome.

2. Modern classification of neuroendocrine syndromes, currently used classification schemes and terminologies of neuroendocrine disorders and their correlations.

3. Modern diagnostic methods used in various forms of neuroendocrine syndromes (clinical, hormonal, ultrasound, laparoscopic, radiological, morphological).

4. Different methods of treatment and modern approaches to therapy of neuroendocrine syndromes. Use of destructive methods (surgical and radiation methods).

Questions for the lecture:

1. Classification of neuroendocrine syndromes.

2. Panhypopituitarism associated with necrosis of the pituitary gland or its pedicle, including as a result of haemocirculatory disorders in the postpartum period (Sheehan's syndrome), diagnostic methods and treatment.

3. Primary hypothalamic hypogonadism (Kalman syndrome), diagnostic methods and treatment.

4. Polycystic ovary syndrome, divided into primary polycystic ovaries – true (Stein-Leventhal syndrome) and secondary polycystic ovaries (polycystic ovary syndrome). Methods of diagnosis, differential diagnosis and treatment by medication and non-medication (surgical) methods.

5. Neuroendocrine disorders associated with the menstrual cycle – premenstrual syndrome, postcastration syndrome, pathology of perimenopause. Possibilities of treatment, prevention.

6. Hyperprolactinaemia, causes of primary and secondary hyperprolactinaemia, diagnostic methods and additional methods of investigation (computed tomography of the brain, skull radiography in two projections), modern approaches to treatment.

7. Psychogenic “hungry” amenorrhoea, amenorrhoea after taking various drugs, possibilities of diagnostics, treatment, prevention.

The standard for mastering the topic.

After completion of the topic, the student should know:

1. Etiology and pathogenesis of various neuroendocrine syndromes.
2. Modern classification used in neuroendocrine disorders.
3. Modern methods of investigation in various forms of neuroendocrine disorders.
4. Modern methods of diagnostics of neuroendocrine syndromes (hormonal, laboratory, pelvic ultrasound, laparoscopy, computer tomography, magnetic resonance tomography), differential diagnostics with organic pathology.
5. Principles of treatment of various forms of neuroendocrine syndromes (hormonal and surgical methods, radiation therapy).
6. Purpose of laparoscopic intervention in polycystic ovary syndrome.

It is necessary to be able to:

1. Collect anamnesis of a patient with neuroendocrine syndrome.
2. Draw up an examination plan for a patient with NES.
3. Competently interpret the data of the obtained examination results, including the results of hormonal examination (level of luteinising hormone and follicle-stimulating hormone, testosterone, thyroid hormone, adrenocorticotropic hormone).
4. Competently interpret pelvic ultrasound findings (ovarian size, capsule thickness, number and quality of follicles).
5. Inform the patient about the methods of examination and the presumed diagnosis, observing the principles of medical ethics and deontology.
6. Make a referral for consultation to a related specialist and, if necessary, to a specialised institution.

Questions for self-preparation:

1. Give the definition of neuroendocrine syndromes.
2. Classification of neuroendocrine syndromes.
3. The concept of premenstrual, menopausal syndromes, their diagnosis, possible methods of treatment.
4. Postcastration syndrome, mechanism of occurrence, methods of diagnosis, treatment.
5. The main etiological and pathogenetic factors of polycystic ovary syndrome.
6. Management of patients with polycystic ovary syndrome (algorithm of examination, treatment).

7. The main clinical manifestations in patients with polycystic ovary syndrome.

8. Main clinical manifestations in patients with adrenogenital syndrome, differential diagnosis, methods of treatment.

9. General tactics of examination of patients with neuroendocrine syndromes (radiography, computed tomography, magnetic resonance tomography, pelvic ultrasound, dopplerometry, electroencephalography, hormonal profile).

10. Differential diagnosis of neuroendocrine syndromes.

11. Treatment methods for various neuroendocrine syndromes (hormonal, surgical, radiation therapy).

Clinical case 1.

A 32-year-old female patient complained of irregular menstruation, every 30–50 days, scanty, painless. She came to the antenatal clinic 2 years ago with complaints of absence of pregnancy with regular sexual intercourse for 2 years.

What anamnestic data should be clarified?

What diseases can be thought of?

What diseases can be assumed after examination?

What additional methods of investigation should be carried out to make a diagnosis?

What diseases should this pathology be differentiated from?

Clinical case 2.

Patient P., 45 years old; during annual preventive examination, thinning of the vaginal mucosa, petechial haemorrhages of the vaginal mucosa were detected. From anamnesis: menstruation since 13 years old, established immediately, regular, every 30 days, 5–6 days, moderate. There were no pregnancies. 2 years ago multiple myoma of the uterus with the size of up to 14 weeks of pregnancy was detected, peritoneal resection and subtotal hysterectomy without appendages were performed. On examination: her condition was satisfactory, skin was of normal colour, heart tones were clear, rhythm was correct. Blood pressure 140/70 mmHg, pulse 78 beats per second, rhythmic. Abdomen was soft, painless. On mirror examination: mucosa of the vaginal walls and vaginal portion of the cervix is thin, pronounced vaginal dryness, with multiple petechiae in the mucosa. The discharge is scanty, mucous. Vaginal examination: uterine body was removed operatively, cervical stump

was not enlarged, mobile, painless. Appendages on both sides are not defined, their area is painless, vaults are painless.

1. Make a diagnosis.

2. Where should the patient be treated (in an outpatient or inpatient facility)?

3. What additional methods of investigation should be performed (general, biochemical blood analysis, hormonal profile, examination of cardiovascular system, hepatobiliary system, other extragenital pathology)?

4. What treatment should be prescribed (hormonal treatment, hormone replacement therapy, anti-inflammatory treatment)?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

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4. Гинекология: практикум / под ред. В. Е. Радзинского. – Москва, 2020.

5. Клинические рекомендации «Синдром поликистозных яичников» // Министерство здравоохранения Российской Федерации. – 2021–2023. – URL: https://minzdrav.samregion.ru/wp-content/uploads/sites/28/2021/07/kr258.pdf (дата обращения: 12.12.2025).

6. Клинические рекомендации «Менопауза и женский климакс» // Министерство здравоохранения Российской Федерации. – 2021–2023. – URL: https://minzdrav.samregion.ru/wp-content/uploads/sites/28/2021/07/kr117.pdf (дата обращения: 12.12.2025).

7. Клинические рекомендации «Предменструальный синдром» // Министерство здравоохранения Российской Федерации. – 2014–2021. – URL: https://umc.org.kz/wp-content/uploads/2022/09/kp-sindrom-predmenstrualnogo-napryazheniya.pdf (дата обращения: 12.12.2025).

8. Гиперандрогения и репродуктивное здоровье женщин / Ю. Е. Доброхотова, З. Е. Рагимова, И. Ю. Ильина, Д. М. Ибрагимова. – Москва: ГЭОТАР-Медиа, 2020.

9. Доброхотова, Ю. Е. Постгистерэктомический синдром. Диагностика и лечение / Ю. Е. Доброхотова, И. Ю. Ильина. – Москва: ГЭОТАР-Медиа, 2017.

Topic 10. BACKGROUND, PRECANCEROUS DISEASES AND CERVICAL CANCER

Motivation:

Background and precancerous diseases are congenital or acquired pathology, on the basis of which malignant tumours develop. More than 500 thousand cases of cervical cancer are detected annually in the world, of which about 12 thousand are in Russia. It is alarming that the proportion of cancer of this localisation in young women is increasing. The increase in the incidence rate in recent years in women under 35 years of age was 40.7 per cent. At present in Russia the rate of cervical cancer is 15.2 cases per 100 thousand women population. There are 12300 new cases of cervical cancer per year. Every year 6,000 women die from cervical cancer in the Russian Federation. The World Congress on Cervical Pathology and Colposcopy, which was held in 1990 in Australia, made a resolution that cervical cancer is a completely preventable disease if it is detected at the precancerous stage. Early diagnosis and rational treatment of background diseases of the cervix can prevent development of precancerous lesions, as well as the transition stage to cancer. Preventive measures aimed at reducing the incidence of cervical cancer also include the following: early detection and treatment of sexually transmitted infections, organisation of uniform screening programmes, quality training of cytologists and colposcopists according to a uniform programme, education of the population and doctors, use of barrier contraception. Vaccine prophylaxis, which has been gaining momentum over the last 5 years, makes a great contribution to cancer prevention.

Purpose of the class:

To study the etiology and pathogenesis of background processes (ectopia, ectropion, erosion, leukoplakia, cervical polyps), precancerous conditions and cervical cancer, as well as modern methods of their diagnosis, treatment and prevention.

Objectives of the class:

1. To study the causes and predisposing factors for the occurrence of background processes, precancerous conditions and cervical cancer.
2. To get acquainted with the classification of cervical diseases: Y.V. Bohman classification, clinical classification of cervical cancer and FIGO classification (TNM).
3. To study the methods of examination of patients with cervical diseases.
4. To learn colposcopy technique and colposcopic terminology.
5. To study background processes of the cervix – ectopia, ectropion, erosion, leukoplakia, erythroplakia, cervical polyps.
6. To study precancerous conditions of cervix, modern classifications and their correlation.
7. To study modern methods of treatment of background and precancerous conditions of the cervix.
8. To study clinical manifestations, methods of diagnosis and treatment of cervical cancer.
9. To determine the possibilities of vaccine prophylaxis in preventing the development of precancerous processes.

The issues of the topic under consideration:

1. The concept of background and precancerous diseases of the cervix; definition of ectopia, ectropion, erosion, leukoplakia, cervical polyps, cervical dysplasia.
2. Classification of background processes of the cervix; currently used classification schemes and terminologies of precancerous processes of the cervix and their correlations (dysplasia, CIN, SIL).
3. Modern methods of examination used in the diagnosis of background and precancerous diseases of the cervix, screening programmes for early detection of cervical dysplasia (cytological method, colposcopy, DNA methods – qualitative and quantitative, histological method) and cervical cancer.
4. Treatment methods and modern approaches to therapy of background and precancerous diseases of the cervix, including antiviral and immunomodulatory therapy. Use of destructive methods (electrocoagulation, electroloop excision, cryotherapy, laser therapy, electroradiosurgical methods), reconstructive-plastic operations.
5. Modern methods of cervical cancer treatment.
6. Prevention of cervical cancer.

Questions for the lecture:

1. Normal anatomy and physiology of the cervix. The structure of multilayer squamous epithelium, cylindrical epithelium. The concept of transformation zone, junction of epithelium, metaplasia of epithelium. The state of the cervix at different age periods of a woman's life.
2. Classification of background diseases of the cervix. Ectopia of cylindrical epithelium, types and forms of ectopia, uncomplicated and complicated ectopia.
3. Causes of ectropion formation, methods and possibilities of reconstructive-plastic operations, application of destructive methods of treatment.
4. True erosion of the cervix, clinical manifestations, methods of diagnosis and treatment.
5. Leukoplakia of the cervix, colposcopic picture in leukoplakia of the cervix, indications for biopsy, histological conclusion in leukoplakia of the cervix, methods of treatment and management of patients with leukoplakia of the cervix.
6. Cervical polyps, erythroplakia, papillomas, endometriosis of the cervix. Methods of diagnosis and treatment of these background diseases of the cervix.
7. Classifications of precancerous diseases of the cervix, terminological schemes and their correlations (dysplasia, CIN, SIL). Methods of diagnostics of precancerous diseases of the cervix, methods and possibilities of drug and non-drug therapy depending on the degree of severity of precancerous process.
8. Classification of cervical cancer. Methods of diagnostics and treatment.

The standard for mastering the topic.

After completion of the topic the student should know:

1. Etiology and pathogenesis of background and precancerous diseases of the cervix – ectopia, ectropion, erosion, leukoplakia, cervical dysplasias.
2. Modern classification of precancerous diseases of the cervix.
3. Modern methods of investigation of cervical pathology.
4. Possibilities of vaccine prophylaxis of precancerous diseases and cervical cancer.
5. Principles of treatment of patients with background and precancerous diseases of the cervix.
6. Methods of surgical treatment, their advantages and disadvantages.
7. The technique of biopsy and the course of diagnostic scraping of cervical mucosa.

It is necessary to be able to:

1. Competently collect an anamnesis.
2. Perform a gynaecological examination – cervical mirror examination (Sims, Cusco) and take smears for cytological examination.
3. Make a plan of examination of the patient for cervical disease.
4. To evaluate colposcopic picture, results of oncocytological and histological examination.
5. Inform the patient about the expected methods of examination and possible treatment methods.
6. Refer to a specialist for destructive methods of treatment of background and precancerous diseases of the cervix and to an oncological institution in case of cervical cancer.
7. Inform the patient and her relatives about the diagnosis, observing the rules of medical ethics and deontology.

Questions for self-preparation:

1. Normal anatomy and physiology of the cervix.
2. Give the concept of background and precancerous diseases of the cervix.
3. Classification of background and precancerous diseases of the cervix.
4. The concept of ectopia and ectropion, diagnosis and methods of their treatment.
5. Methods of diagnosis and treatment of cervical leukoplakia.
6. Indications for cervical biopsy.
7. Management of patients with cervical erosion.
8. What treatment is carried out in patients with cervical polyps?
9. Possibilities of vaccine prophylaxis.
10. Screening for detection of cervical precancer.
11. Tactics of examination of patients with precancerous diseases of the cervix. With what diseases should the differential diagnosis of precancerous diseases of the cervix be made?
12. Methods of treatment of background and precancerous diseases, advantages and disadvantages.
13. Methods of examination of patients with cervical cancer.
14. Modern methods of cervical cancer treatment taking into account the stage of oncological process, age of the patient, concomitant gynaecological and extragenital pathology.

Clinical case 1.

A 22-year-old female patient complained of profuse, liquid discharge from the genital tract, bloody discharge during sexual intercourse. The last visit to a gynaecologist was 1.5 years ago, when cervical ectopia was detected during examination, no treatment was performed.

1. What anamnestic data should be clarified?
2. What diseases can be thought of?
3. What diseases can be assumed after examination?
4. What additional methods of investigation should be carried out to make a diagnosis?
5. What diseases should this pathology be differentiated from?

Clinical case 2.

Patient K., 32 years old, had a smear for oncocytology during her annual preventive examination, which revealed moderate dysplasia. From anamnesis: menstruation since 13 years old, established immediately, 5–6 days, every 28–30 days, moderate, abundant in the first days. Pregnancy was 1 at the age of 18 years, ended in medical abortion at an early term. She has been sexually active since the age of 17, unmarried, protected by barrier contraception (not always). Somatically not aggravated; gynaecological diseases – erosion of the cervix, detected 14 years ago (not treated); colpitis (ureaplasma, human papilloma virus 18, 35, 45 types were detected) – treated, control of cure was not made. General condition is satisfactory. The abdomen is soft, painless. Gynaecological examination: external genitalia are properly developed, female-type hair distribution. On mirror examination: on the vaginal portion of the cervix there is an area of ectopia of cylindrical epithelium, hyperaemic, bleeds on contact. Vaginal examination: cervix of conical shape, dense, painless, uterine body of normal size, dense, painless, the area of appendages – without peculiarities on both sides. The vaults are deep.

1. Make a diagnosis.
2. Where should the patient be treated (in an outpatient or inpatient facility)?
3. What additional investigations should be carried out? (general, biochemical blood tests, PCR examination, colposcopy, cervical biopsy with subsequent histological examination).
4. What treatment should be prescribed? (anti-inflammatory, surgical?)

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

3. Кулаков, В. И. Гинекология: национальное руководство / В. И. Кулаков, Г. М. Савельева, И. Б. Манухин. – Москва: ГЭОТАР-Медиа, 2022.

4. Гинекология: практикум / под ред. В. Е. Радзинского. – Москва, 2020.

5. Клинические рекомендации «Клинический протокол диагностики и лечения невоспалительных заболеваний вульвы и промежности» // Министерство здравоохранения Российской Федерации. – 2016.

6. Рак и беременность / Ю. Е. Доброхотова, М. Г. Венедиктова, К. В. Морозова, Е. И. Боровкова. – Москва: ГЭОТАР-Медиа, 2019.

7. Опухоли наружных половых органов / М. Г. Венедиктова, Ю. Е. Доброхотова, К. В. Морозова, М. Д. Тер-Ованесов. – Москва: ГЭОТАР-Медиа, 2019.

8. Венедиктова, М. Г. Опухоли шейки матки / М. Г. Венедиктова, Ю. Е. Доброхотова, К. В. Морозова. – Москва: ГЭОТАР-Медиа, 2019.

9. Венедиктова, М. Г. Онкогинекология в практике врача-гинеколога / М. Г. Венедиктова, Ю. Е. Доброхотова. – Москва: ГЭОТАР-Медиа, 2015.

Topic 11. HYPERPLASTIC PROCESSES OF ENDOMETRIUM

Motivation:

The frequency of endometrial hyperplastic processes has been steadily increasing in recent years. This can be explained by increasing life expectancy of women, unfavourable environmental conditions, increasing frequency of such "diseases of civilization" as anovulation, chronic hyperestrogenism, infertility, uterine myoma, endometriosis; neuroendocrine disorders accompanied by metabolic disorders (obesity, diabetes mellitus, hyperinsulinemia, hyperlipidemia), chronic somatic diseases with decreased immunity. The urgency of the problem of hyperplastic processes of the endometrium is associated with a high frequency of abnormal uterine bleeding and a possible basis for the formation of malignant tumours of the endometrium. Modern diagnostics and treatment of endometrial hyperplastic processes, correction of various neuroendocrine disorders and metabolic disorders are considered to be preventive measures of endometrial cancer.

Knowledge and skills acquired during the study of this topic will help a general practitioner to timely suspect a hyperplastic process in the endometrium, competently conduct examination of patients, timely refer to a specialist to establish a diagnosis and adequate treatment.

Purpose of the class:

To study the causes of occurrence, classification, clinical manifestations, methods of diagnosis, treatment and prevention of endometrial hyperplastic processes.

Objectives of the class:

1. To study modern concepts of pathogenesis and the main causes of hyperplastic processes of the endometrium.
2. To study the histological classification of hyperplastic processes of the endometrium, the concept of endometrial precancer from the morphological position and clinical and morphological classification.
3. To acquaint students with modern methods of diagnostics of endometrial pathology.
4. To study clinical manifestations of endometrial hyperplastic processes, standard methods of diagnosis and treatment.

Topic issues addressed:

1. Definition of the concept of endometrial hyperplastic processes.
2. Modern ideas about pathogenesis of hyperplasia and endometrial polyps.
3. Histological classification of hyperplastic processes of endometrium and endometrial polyps, adopted by WHO in 1994.
4. The concept of endometrial precancer from the morphological position and according to the clinical and morphological classification by G. M. Savelieva and V. N. Serov (1980).
5. Frequency of endometrial cancer occurrence with previous background and precancerous endometrial diseases.
6. Clinic and basic diagnostic methods (pelvic ultrasound, hydrosonography, hysteroscopy, histological examination of endometrium obtained after separate diagnostic curettage of uterine mucosa) in endometrial pathology.
7. Purpose and stages of treatment of endometrial hyperplastic processes depending on the age period of a woman.
8. Modern methods of treatment of endometrial hyperplastic processes, including hormone therapy, the possibility of using intrauterine hormone-containing system (Mirena) as a good alternative to surgical treatment. Surgical treatment (hysterectomy, endometrial ablation, hysteroresectoscopic polypectomy).
9. Tactics of patient management and choice of treatment method taking into account age, morphological changes in the endometrium, duration and recurrence rate of the disease and the presence or absence of gynaecological and extragenital pathology.

The standard for mastering the topic.

After completion of the topic the student should know:

1.Definition of the concept of endometrial hyperplastic processes, pathogenesis of the disease.
2. Histological classification of hyperplastic processes of endometrium, endometrial precancer from morphological position and according to clinical and morphological classification.
3. Clinical picture and basic methods of diagnostics of endometrial pathology.
4. Purpose, stages and modern methods of treatment of hyperplastic processes of endometrium.

5. Tactics of patient management and choice of treatment method taking into account age, morphological changes of endometrium, duration and recurrence rate of the disease and presence or absence of gynaecological and extragenital pathology.

6. The technique of performing separate diagnostic curettage of the uterine mucosa – Dilatation and Curettage (D and C) (the purpose of the items of the set for separate diagnostic curettage of the uterine mucosa, hysteroscopy, hysteroresectoscopy).

It is necessary to be able to:

1. Competently collect a medical history.
2. Conduct a gynaecological examination.
3. Outline the plan of examination of a patient with endometrial hyperplasia.
4. Distinguish hysteroscopic pictures of different variants of endometrial hyperplastic processes.
5. Correctly interpret the results of examination and establish a diagnosis.
6. Draw up a treatment plan for a particular patient with endometrial hyperplasia.
7. Prescribe the most commonly used drugs for the treatment of patients with endometrial hyperplasia.
8. Inform the patient about the results of the examination and suggested treatment methods.
9. Talk to the patient about modern methods of treatment and prevention of endometrial hyperplastic processes.

Questions for self-study:

1. Give a definition of endometrial hyperplastic processes.
2. What are the causes of endometrial hyperplastic processes?
3. What is the pathogenesis of endometrial hyperplastic processes?
4. Histological classification of endometrial hyperplasia and polyps with indication of morphological features of their variants.
5. What refers to precancerous diseases of the endometrium?
6. What are the clinical manifestations of hyperplastic processes of the endometrium?
7. What methods are used to diagnose hyperplastic processes of the endometrium?
8. What is the purpose of hysteroscopy?

9. What is the significance of pelvic ultrasound in the diagnosis of endometrial pathology?

10. What is the therapeutic tactics in hyperplastic processes of the endometrium?

11. Methods of treatment of hyperplastic processes of the endometrium, indications and contraindications, their advantages and disadvantages.

12. What are the indications for surgical treatment (hysterectomy, endometrial ablation) in hyperplastic processes of the endometrium?

Clinical case 1.

A 46-year-old patient was admitted with complaints of bloody discharge from the genital tract, which lasted for 14 days and appeared after a delay in menstruation for 20 days. Menstruation since the age of 17, was irregular until the age of 40. There were no pregnancies, she was not examined for infertility. There is no extragenital pathology. In the anamnesis: three separate diagnostic curettages of uterine mucosa were performed due to abnormal uterine bleeding; simple glandular hyperplasia of endometrium without atypia was diagnosed; hormone therapy was administered. Gynaecological examination of gynaecological organs revealed no pathology. The patient underwent separate diagnostic curettage of uterine mucosa, histology – glandular hyperplasia of endometrium without atypia.

1. Make a diagnosis.

2. What additional methods of examination should be performed?

3. What treatment options are possible in this patient?

Clinical case 2.

A 42-year-old patient was admitted with complaints of intermenstrual bloody discharge from the genital tract and heavy menstruation for the last 3 months. She had 6 pregnancies, including 2 births and 4 early medical abortions. Two years ago the patient underwent separate diagnostic curettage of uterine mucosa without hysteroscopy, according to histological examination – fragments of glandular-fibrous polyp of endometrium. Gynaecological examination revealed scanty bloody discharge from the cervical canal, uterine body and appendages were not changed.

1. What is the presumptive diagnosis?

2. Plan of examination.

3. What is the final method of diagnosis and treatment required in this case?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

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4. Гинекология: практикум / под ред. В. Е. Радзинского. – Москва, 2020.

5. Клинические рекомендации «Гиперплазия эндометрия» // Министерство здравоохранения Российской Федерации. – 2021–2023. – URL: https://minzdrav.samregion.ru/wp-content/uploads/sites/28/2021/07/kr646.pdf (дата обращения: 12.12.2025).

6. Доброхотова, Ю. Е. Гиперплазия эндометрия / Ю. Е. Доброхотова, Л. В. Сапрыкина. – Москва: ГЭОТАР-Медиа, 2021.

Topic 12. ENDOMETRIAL CANCER

Motivation:

Increased attention to the problems of diagnosis and treatment of endometrial cancer is associated with a steady increase in the incidence of this pathology both in Russia and in other, mainly economically developed countries of the world. In Russia, endometrial cancer ranks second after malignant lesions of the mammary glands and first among tumours of the female genital sphere. Over the last 30 years, the incidence of uterine cancer has increased 3-fold, with the greatest increase in young women under 29 years of age (by 50% in 10 years).

Knowledge and skills acquired during the study of this topic will help a general practitioner to timely suspect endometrial cancer, refer to a specialist – oncologist, to prevent the development of the process to a neglected disease, and after treatment – to choose the best methods of rehabilitation, taking into account the stage of the process and the patient's condition.

Purpose of the class:

To study the causes, classification, clinical manifestations, methods of diagnosis and treatment of endometrial cancer.

Objectives of the class:

1. To study the main causes of endometrial cancer taking into account its two pathogenetic variants.
2. To analyse clinical and histological classification of endometrial cancer.
3. To study clinical manifestations of endometrial cancer in women at different age periods.
4. To study modern methods of diagnostics of endometrial cancer.
5. To get acquainted with modern approaches to treatment of patients with endometrial cancer.
6. To analyse treatment options for endometrial cancer depending on the stage of the disease and the age of the patient, as well as the histological characteristics of the tumour and the general state of health (presence or absence of concomitant extragenital diseases).
7. To determine the prognosis at different stages of endometrial cancer and histological structure of the tumour.
8. To study endometrial cancer prevention measures.

Topic issues addressed:

1. The incidence of endometrial cancer and age range of patients.
2 Pathogenetic variants and risk factors of endometrial cancer.
3. Histological and clinical classification of endometrial cancer (FIGO, 1971) which is used preoperatively or in inoperable patients and classification (FIGO, 1988) which is based on intraoperative findings and histological examination.
4. Morphological forms of endometrial cancer and degrees of differentiation of the neoplasm, features of metastasis.
5. Clinical picture of endometrial cancer depending on the age of the patient.
6. Diagnostic methods of endometrial cancer (pelvic ultrasound, hysteroscopy, histological examination of endometrium obtained after separate diagnostic curettage of uterine mucosa, endometrial aspiration biopsy), including additional methods of examination of patients to establish the stage of endometrial cancer (abdominal ultrasound, chest X-ray, colonoscopy, cystoscopy, if necessary, excretory urography, computed tomography, etc.).
7. Pelvic ultrasound findings and hysteroscopic picture in normal and in endometrial cancer.
8. Methods of endometrial cancer treatment (surgery, radiation therapy, hormone therapy, chemotherapy), their stages and combination depending on the stage of process spread and patient's condition.
9. Prognosis in endometrial cancer.
10. Measures of prevention of endometrial cancer.

Issues for the lecture:

1. The incidence, age range and mortality in endometrial cancer.
2. Pathogenetic variants and risk factors of endometrial cancer.
3. Classification of endometrial cancer.
4. Clinical picture and diagnostic methods of endometrial cancer.
5. Treatment of endometrial cancer depending on the stage of the process and the patient's condition.
6. Scope of surgical treatment and contraindications for its performance, indications for lymphadenectomy in endometrial cancer.
7. Necessity of radiation therapy, hormone therapy, chemotherapy in endometrial cancer.
8. Factors affecting recurrence and progression of the disease, five-year survival rate of patients with uterine cancer.

Topic mastery standard.

After completion of the topic, the student should know:

1. Pathogenetic variants and risk factors of endometrial cancer.
2. Classification, morphological forms, degrees of differentiation, pathways of metastasis in endometrial cancer.
3. Clinical picture and diagnostic methods of endometrial cancer, including additional methods of examination of patients to establish the stage of the disease.
4. Methods of endometrial cancer treatment (surgery, radiation therapy, hormone therapy, chemotherapy), their stages and combination depending on the stage of spread of the process and the patient's condition.
5. Prognosis and preventive measures for endometrial cancer.
6. The technique and course of performing separate diagnostic curettage of the uterine mucosa.

It is necessary to be able to:

1. Competently collect a medical history.
2. Perform a gynaecological examination.
3. Draw up a plan of examination for suspected endometrial cancer in a particular patient and prepare the patient to perform these examinations, assist in their performance.
4. Correctly interpret the results of examination (ultrasound findings, oncocytological examination results, hysteroscopic picture, histological examination results, etc.).
5. Make a referral to an oncologist when a diagnosis of endometrial cancer is made.
6. Correctly inform the patient about the examination methods to be performed and the presumed diagnosis.
7. Observe the rules of medical ethics and deontology when talking to a patient with endometrial cancer and her relatives.

Questions for self-training:

1. What is the place of endometrial cancer among malignant neoplasms of female genital organs?
2. At what age is endometrial cancer most common?
3. What are the pathogenetic variants of endometrial cancer?
4. Which patients are at risk for endometrial cancer?
5. What are the classifications of endometrial cancer?
6. The main routes of metastasis in endometrial cancer.
7. What clinical symptoms are characteristic of endometrial cancer?

8. What are the diagnostic methods for endometrial cancer?

9. What additional diagnostic methods are used to establish the stage of endometrial cancer?

10. What are the principles of therapy for endometrial cancer?

11. What are the principles of treatment depending on the stage of endometrial cancer?

12. What is the scope of surgical treatment for endometrial cancer?

13. What measures are necessary for the prevention of endometrial cancer?

Clinical case 1.

A 60-year-old patient was admitted to the hospital with complaints of bloody discharge from the genital tract. Postmenopause for 3 years. There were no pregnancies. Height 160 cm, weight 110 kg. For the last 10 years she has been experiencing an increase in BP up to 180/110 mm Hg, diagnosed with type 2 diabetes mellitus, receives insulin therapy. In the anamnesis, a separate diagnostic curettage of the uterine mucosa was performed twice due to abnormal uterine bleeding, histologically diagnosed as simple glandular cystic hyperplasia of the endometrium without atypia, hormone therapy was performed. Gynaecological examination revealed bloody discharge from the cervical canal, uterine body and appendages were not changed.

1. What is the presumptive diagnosis?

2. What additional methods of investigation should be carried out to make a final diagnosis?

3. What follow-up treatment is needed for the patient after the final diagnosis?

Clinical case 2.

A 72-year-old patient was admitted with complaints of bloody discharge from the genital tract, which has been occurring periodically for the last 4 months. She has not consulted a doctor and has not been treated in any way. Postmenopause 22 years. In the anamnesis: 2 births, no known gynaecological pathology. According to the ultrasound of the pelvic organs, M-echo (midline-echo) is 10 mm, the uterine cavity is enlarged due to homogeneous fluid. Conclusion: Endometrial pathology. Serosometra. From objective data: height 170 cm, weight 58 kg. Gynaecological examination revealed scanty bloody dis-

charge from the cervical canal, uterine body and appendages are not changed, vaults are free, there are no infiltrates in the pelvis.

1. What is the presumptive diagnosis?
2. What additional methods of investigation should be performed?
3. What is the subsequent management of the patient?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

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4. Гинекология: практикум / под ред. В. Е. Радзинского. – Москва, 2020.

5. Клинические рекомендации «Рак эндометрия» / Министерство здравоохранения Российской Федерации. – 2021–2023.

6. Клинические рекомендации «Рак тела матки и саркомы матки» // Министерство здравоохранения Российской Федерации. – 2021. – URL: https://oncology-association.ru/wp-content/uploads/2021/02/rak-tela-matki-i-sarkomy-matki-2021.pdf (дата обращения: 12.12.2025).

7. Рак и беременность / Ю. Е. Доброхотова, М. Г. Венедиктова, К. В. Морозова, Е. И. Боровкова. – Москва: ГЭОТАР-Медиа, 2019.

8. Рак тела матки / М. Г. Венедиктова, Ю. Е. Доброхотова, К. В. Морозова, М. Д. Тер-Ованесов. – Москва: ГЭОТАР-Медиа, 2019.

Topic 13. OVARIAN TUMOURS AND TUMOUR-LIKE FORMATIONS

Motivation:

Ovarian formations may be retentional (temporarily existing) and may also be true ovarian tumours (benign, borderline or malignant), which may reach large sizes, interfere with the function of neighbouring abdominal organs, and may undergo rupture or torsion of the pedicle, resulting in a state of "acute abdomen" requiring emergency hospitalisation and surgical treatment. Tumour formations are cysts: follicular, luteal, endometrioid, paraovarian, as well as polycystic ovaries, hyperplasia of the ovarian stroma and hyperthecosis. Classification of ovarian tumours is based on their histological structure. The most common are: epithelial tumours (serous, mucinous, endometrial), stromal tumours of the genital tract (granulosa-stromal cell tumours, androblastomas, gynandroblastomas), germ cell tumours (dysgerminoma, teratomas). When examining a patient with a pelvic formation originating from the ovary, it is very important to decide on the nature of the formation (tumour or tumour-like), as this determines the choice of treatment. The treatment of tumour-like formations is more often conservative, while true tumours must be treated surgically. The knowledge acquired during the study of this topic is necessary for a general practitioner to identify patients at risk for this pathology, timely referral to a specialist for early diagnosis and treatment, which in most cases can help to avoid malignization.

Purpose of the class:

To study the incidence, causes of occurrence, clinical picture, diagnosis and treatment of benign and malignant tumours and tumour-like formations of the ovaries, as well as possible complications of these diseases requiring emergency care (torsion of the pedicle, rupture with intra-abdominal bleeding).

Objectives of the class:

1. To study the causes and predisposing factors for the occurrence of tumours and tumour-like formations of the ovary.
2. To study the clinical picture of ovarian tumours (benign, borderline and malignant) in patients of reproductive, perimenopausal and postmenopausal periods.
3. To study the clinical picture of ovarian tumour-like (retention) formations depending on the cause of their occurrence.

4. To study the methods of diagnostics of ovarian tumours and tumour-like formations, including modern additional methods of investigation (ultrasound with different scanning options (3D, 4D), Dopplerography with blood flow determination, blood tests for oncomarkers, abdominal puncture with subsequent oncocytological examination of the punctate, laparoscopy, ovarian biopsy).

5. To study the treatment of tumour-like formations: conservative (anti-inflammatory and hormonal) and operative methods, including treatment of complications (rupture of the formation, torsion of the uterine appendages) requiring emergency care.

6. To study the methods of surgical treatment of benign ovarian tumours (ovarian resection, ovariectomy, adnexectomy, subtotal hysterectomy with appendages) and the accesses for their performance (laparotomic or laparoscopic).

7. To get acquainted with the complex treatment of malignant ovarian tumours (surgical treatment + chemotherapy + immunotherapy), indications and contraindications for its implementation.

8. To have an idea about rehabilitation of patients who have undergone surgical treatment and chemotherapy and prevention of ovarian tumours.

Topic questions addressed:

1. Frequency of ovarian tumours and tumour-like formations, in which age groups do they occur more frequently?

2. Etiology and pathogenesis of ovarian tumours and tumour-like formations.

3. Clinical picture of tumours and tumour-like formations of the ovary depending on the nature of the formation and the age of the patient.

4. Diagnosis of ovarian tumours and tumour-like formations (modern methods of ultrasound (3D, 4D) and Dopplerography (colour mapping, etc.), determination of oncomarkers, puncture, oncocytology, biopsy, histology, etc.).

5. Treatment of ovarian tumour formations in patients of different age groups and depending on the nature of the formation.

6. Treatment of benign ovarian tumours.

7. Treatment of malignant ovarian tumours.

Questions for the lecture:

1. Relevance of the study of the disease: incidence, possible complications.

2. Etiology and pathogenesis of ovarian tumour formations.

3. Etiology and pathogenesis of benign and malignant ovarian tumours.

4. Classification of tumours and tumour-like formations of ovary.
5. Modern methods of diagnosis.
6. Treatment of benign and malignant tumours of the ovary, prevention of complications.
7. Treatment of tumour-like formations of the ovary, prevention of complications.
8. Prevention of tumours and tumour-like formations of the ovary.

The standard of mastering the topic.

It is necessary to know:

1. Causes of tumours and tumour-like formations of the ovary.
2. Clinic and diagnosis of tumours and tumour-like formations of the ovary.
3. Methods of differential diagnosis between ovarian tumours and tumour-like formations of the ovary, as well as with other diseases.
4. Methods of conservative treatment of ovarian tumour-like formations. Indications for surgical treatment.
5. Methods of treatment of benign, borderline and malignant tumours of the ovary.
6. Methods of emergency care in complications associated with ovarian tumours.

It is necessary to be able to:

1. Competently collect a medical history.
2. Make a plan of examination of the patient with suspected ovarian tumour.
3. Correctly interpret the results of examination and make a presumptive diagnosis.
4. Carry out differential diagnosis.
5. Choose a method of treatment based on the examination for a particular patient.
6. Correctly inform the patient about the examination methods and proposed treatment.
7. Talk to the patient and her relatives, observing the rules of medical ethics and deontology.

Questions for self-preparation:

1. What are the causes of tumours and tumour-like formations of the ovary?
2. Peculiarities of clinical picture of epithelial tumours (serous and mucinous cystadenoma).
3. Peculiarities of clinical picture of hormone-producing ovarian tumours in reproductive, perimenopausal and postmenopausal periods.

4. Name the symptoms characteristic of malignant ovarian tumour.

5. Modern methods of diagnosis of ovarian tumour.

6. What is included in the concept of surgical pedicle in ovarian tumour torsion?

7. What diseases do you have to make a differential diagnosis with in ovarian tumour?

8. What is the clinical picture of ovarian tumour pedicle torsion?

9. What volume of operation is necessary in benign and malignant ovarian tumour?

10. To what group of tumours does a mature teratoma of the ovary belong?

11. What is the purpose of abdominal puncture in ovarian tumour?

12. In what disease of the genitalia are luteal cysts formed?

13. Methods of treatment in ovarian tumour formations.

Clinical case 1.

The patient is 54 years old, postmenopausal for 4 years. In the anamnesis there are 2 childbirths and 4 medical abortions, without complications. For the last 4–5 months, abdominal enlargement has been noted. General condition is satisfactory. BP 140/90 mm Hg, pulse 86 beats per minute, rhythmic. The abdomen is soft, slightly increased in volume. Gynaecological examination: external genitalia and vagina are without peculiarities, cervix is without pathological changes, external cervical os is closed. Uterus is of usual size, dense, slightly displaced to the left, painless. Appendages on the left are without changes, on the right side in the area of appendages there is a roundish formation with smooth surface, limitedly mobile, painless, up to 9–10 cm in diameter. Vaults are free, mucous discharge from the genital tract. Ultrasound examination revealed a rounded formation coming from the right ovary, with smooth edges, anechogenic content, without any inclusions. Diagnosis? Plan of examination and treatment?

Clinical case 2.

The patient is 25 years old, menstrual function is not disturbed. She was preparing for laparoscopic surgery for a right ovarian cyst diagnosed 5 months ago by ultrasound. She was delivered by ambulance with complaints of sharp pains in the lower abdomen, more on the right side, which occurred suddenly on rising from bed. The temperature is normal, L – 6.2×10^9/l. Two-handed examination: the vagina, cervix without peculiarities, on the right side in the area of appendages there is a roundish for-

mation of tight elastic consistency, sharply painful at examination, limitedly mobile, up to 8 cm in diameter, vaults are free, mucous discharge. Diagnosis? Shortcomings of the examination? Management plan?

Clinical case 3.

A 32-year-old female patient complained of nagging pains in the lower abdomen, more on the right side. The pains have been bothering for 3 months. From the anamnesis: menstruation since 15 years old, 4–5 days, painful. For the last 6 months she has been experiencing irregular menstruation. Sexual life since18 years old, one childbirth, 2 artificial abortions. Repeatedly treated in hospital for inflammatory process of uterine appendages. Two-handed examination: uterine body and left appendages without peculiarities. In the area of the right appendages there is a round-shaped formation up to 6 cm in diameter, slightly painful on palpation, mobile. Ultrasound findings: in the projection of the right ovary – a unicameral formation with a thin capsule, with homogeneous content. Diagnosis? Management plan? Scope of surgery?

Clinical case 4.

The patient is 25 years old. Complaints of a feeling of heaviness in the lower abdomen, nagging pains, more on the right side. From the anamnesis: menstruation since 15 years old, established in a year, heavy and painful. Sexual life since 18 years, no pregnancies. Two-handed examination: uterus and left appendages without peculiarities. On the right and in front of the uterus there is a mobile roundish formation of irregular consistency, dense, with uneven surface, up to 6 cm in diameter, painless on palpation. Ultrasound findings: right ovary of mixed solid-cystic structure, with acoustic shadow due to the presence of bone tissue, fine-grained structure due to fat content. Diagnosis? Management plan?

Clinical case 5.

A 35-year-old female patient. Complaints of lower abdominal pain, more on the right side, of a nagging character. From the anamnesis: menstruation since 15 years old, established in 1.5 years, abundant and painful. Past diseases: chronic inflammation of uterine appendages. Pains have been bothering for 3 years, the last 6 months the pains have intensified. At two-handed examination: the uterus and left appendages without peculiarities. In the area of the right appendages there is a roundish formation of soft-elastic consistency, up to 8–9 cm in diameter, painless on palpation. Ultrasound findings: uterus and left ovary without

peculiarities, the right ovary is defined as a separate anatomical entity, next to it there is a thin-walled formation with liquid homogeneous content, rounded, up to 8 cm in diameter. Diagnosis? Management plan?

Clinical case 6.

A 32-year-old patient was brought to the hospital in a serious condition with complaints of abdominal pain, vomiting, gas retention. The pain was of cutting character, it started at night, there was a brief loss of consciousness. From the anamnesis – menstruation is regular, painless. The last normal menstruation was 2 weeks ago. From the objective data, attention is drawn to the increased pulse rate up to 110/min, increase of temperature up to 37,5°C, dry tongue, abdominal bloating, sharp painfulness on palpation. A mass with indistinct contours in the left half of the abdomen is palpated through the anterior abdominal wall. On mirror examination – no pathology of the cervix and vaginal walls was revealed. Two-handed vaginal-abdominal examination revealed: the cervix is dense, cylindrical in shape, the external os is closed, the uterus is slightly enlarged, limitedly mobile, sharply painful on palpation. Through the left lateral vault the lower pole of the formation of tight elastic consistency, sharply painful on movement is determined. The vaults are free. Diagnosis? Methods of examination? Management plan?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

3. Кулаков, В. И. Кулаков, В. И. Гинекология: национальное руководство / В. И. Кулаков, Г. М. Савельева, И. Б. Манухин. – Москва: ГЭОТАР-Медиа, 2022.

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6. Рак и беременность / Ю. Е. Доброхотова, М. Г. Венедиктова, К. В. Морозова, Е. И. Боровкова. – Москва: ГЭОТАР-Медиа, 2019.

Topic 14. OVARIAN CANCER

Motivation:

Ovarian cancer refers to malignant epithelial tumours. In terms of frequency in the structure of oncogynaecologic diseases of the female reproductive system this pathology ranks fourth, after breast, endometrial and cervical cancer. Ovarian cancer takes the leading place among the causes of mortality from malignant tumours of other localizations. At the same time, mortality from this disease in oncogynaecology takes the first place and accounts for 50–65%. Thus, students need to know the peculiarities of the clinical course, diagnosis and treatment of this disease.

Purpose of the class:

To study the etiology, pathogenesis, clinical manifestations of ovarian cancer, modern methods of diagnosis and treatment: surgical, chemotherapeutic, radiation, as well as combined and complex treatment.

Objectives of the class:

1. To study the causes and predisposing factors for ovarian cancer.
2. To study clinical manifestations of the disease.
3. To study the algorithm of diagnostic methods, including: determination of biochemical and clinical blood parameters, level of tumour-associated marker CA-125, rectovaginal examination, ultrasound tomography of abdominal cavity and retroperitoneal organs, irrigoscopy, colonoscopy, gastroscopy, gastric X-ray examination, cystoscopy, radiological examination of the lungs, computed tomography, intravenous urography (if indicated), laparoscopy, cytological examination of abdominal flushes (washouts), histological examination of material obtained during laparoscopy or tumour puncture.
4. To have an idea of hereditary syndromes: organ-specific familial ovarian cancer syndrome, organ-associated familial breast and ovarian cancer syndrome, organ-associated familial ovarian/mammary/endometrial/ colon cancer syndrome (Lynch-II syndrome).
5. To study the differential diagnosis of ovarian cancer.
6. To study the peculiarities of treatment of ovarian cancer patients: volumes of surgical interventions, chemotherapy, radiation therapy.

The topic questions addressed are:

1. Causes and predisposing factors for ovarian cancer.
2. Clinical picture of ovarian cancer depending on the stage of the disease.
3. Modern methods of diagnostics. Difficulties in clinical diagnosis of ovarian cancer due to the lack of specific symptoms of the disease

manifestation. Availability in the arsenal of diagnosis determination test in serum of tumour markers (CA 125, CA 19-9, etc.) for early diagnosis of initial forms of ovarian cancer, especially in hereditary cancer syndromes.

4. Methods of treatment and their sequence.

5. Surgical treatment of ovarian cancer. Possibilities and volume of performed intervention depending on the stage, degree of spread of malignant process and age of the patient. Radical operations and their volume. Extended operations in case of metastatic involvement of lymph nodes (lymphadenectomy). Combined operations when the tumour process involves the intestine, bladder, spleen, etc.

6. Cytoreductive surgeries. Repeated cytoreductive surgeries in cases of non-radical nature of the previously performed surgery, after courses of chemotherapy, as well as in the occurrence of local recurrences without signs of dissemination of the tumour process. Palliative operations (in case of intraabdominal bleeding or intestinal obstruction).

7. Possibilities of organ-preserving operations in young women of reproductive age at stage IA of the disease and highly differentiated ovarian cancer (removal of uterine appendages from the side of the lesion, resection of the contralateral ovary, removal of the greater omentum, cytologic examination of abdominal cavity flushes and multiple peritoneal biopsies).

8. Chemotherapy of ovarian cancer. Treatment regimens, modes of drug administration, number of courses of neo- and adjuvant chemotherapy, side effects and complications of drug antitumour therapy. Mono- and polychemotherapy. Chemopreventive agents used in the treatment of ovarian cancer patients (cyclophosphan, 5-fluorouracil, methotrexate, cisplatin, carboplatin, taxol, paclitaxel, docetaxel, hexalen, gemzar, etoposide, topotecan, etc.). CA-125 in monitoring and evaluating the effectiveness of chemotherapy, as well as remission control.

Questions for the lecture:

1. Statistics of morbidity of onco-gynecological diseases, including ovarian cancer.

2. Clinical manifestations and differential diagnosis of epithelial ovarian cancer.

3. Algorithm of diagnostic procedures of ovarian cancer with the use of clarifying methods of examination, including medical and genetic examination.

4. Methods of treatment. Combined and complex treatment.
5. Distant results of treatment.

The standard of mastering the topic.

After completion of the topic, the student should know:

1. Causes and predisposing factors for ovarian cancer.
2. Clinical picture of the disease.
3. Algorithm of examination of patients with ovarian cancer.
4. Differential diagnosis of ovarian cancer with such diseases as: colitis, gastritis, enterocolitis, liver cirrhosis, pleurisy, pneumonia, cardiopulmonary insufficiency, ascites of unclear etiology, colon cancer, pelvic abscess; as well as with benign tumours and functional ovarian cysts, with tuboovarian formations, endometriosis, subserosal uterine myoma.
5. Principles of combined and complex treatment.
6. Operative treatment in ovarian cancer.
7. Chemotherapy in ovarian cancer.
8. Immunotherapy for ovarian cancer.

It is necessary to be able to:

1. Competently collect a history from a patient with suspected ovarian cancer.
2. Make a plan of examination of the patient.
3. Properly inform the patient of the proposed examination methods and prepare the patient for these examination methods.
4. Interpret the results of the examination. Compare the data of clinical course of the disease with additional methods of examination, including the assessment of serum values of tumour marker CA-125.
5. Make a referral to an oncologic institution when the diagnosis is confirmed.
6. Inform the patient and her relatives about the results of the examination and diagnosis, observing the rules of medical ethics and deontology.

Questions for self-study:

1. The incidence of ovarian cancer and the impact of the disease on demographics.
2. Morphologic forms of epithelial malignancies.
3. Classification of ovarian cancer (TNM).
4. Causes of ovarian cancer, predisposing factors.
5. Clinical manifestations of ovarian cancer.
6. Algorithm of methods of examination of patients with ovarian cancer.

7. Significance in the diagnosis of ovarian cancer tumour marker CA-125.

8. In what conditions and other non-oncologic pathology can the level of CA-125 be elevated? List them.

9. Molecular genetic methods of diagnostics of hereditary "familial" and sporadic forms of ovarian cancer.

10. Hereditary syndromes. List them. What does Lynch II syndrome include?

11. Differential diagnosis. List the diseases with which differential diagnosis should be made.

12. List the main methods of treatment of ovarian cancer.

13. What does the concept of combined treatment of ovarian cancer include?

14. What does the concept of complex treatment of ovarian cancer include?

15. What volumes of surgical intervention are performed in ovarian cancer? List them.

16. What antitumour drugs are used in the treatment of ovarian cancer? List them.

17. Complications of antitumour drug treatment. List them.

Clinical case 1.

A 48-year-old patient. She came to the clinic with complaints of abdominal enlargement, shortness of breath, weakness. On examination: abdomen significantly increased in volume due to ascites. According to X-ray examination of the lungs: left-sided pleurisy up to the 4^{th} rib. Gynecological examination is difficult due to the presence of pronounced ascites. According to pelvic ultrasound, the ovaries are cystic-solid, up to 6.5 cm in diameter. Diagnosis? Management plan?

Clinical case 2.

A 65-year-old patient. She visited a gynecologist at her place of residence with complaints of pain in the left iliac region, constipation alternating with diarrhea, weight loss, weakness. At gynecological examination in the area of the left uterine appendages a mass without clear boundaries is palpated. CA-125 in blood – 45 IU/l. Diagnosis? Differential diagnosis.? What diagnostic methods should be used?

Clinical case 3.

The patient is 26 years old. She was admitted to the clinic with complaints of fever up to 38°, pain during urination, abundant pus-like discharge from the genital tract, pain in the lower abdomen. On exami-

nation: the abdomen is tense in the left iliac region, Shchetkin-Blumberg's symptom is sharply positive. At gynecological examination: abundant purulent discharge with unpleasant odor. The uterine body is slightly enlarged, a dense painful mass up to 7 cm in diameter fixed to the pelvic wall is palpated in the area of the left uterine appendages. The right uterine appendages are featureless. CA-125 in blood – 96 IU/l. Diagnosis? Plan of examination? Treatment?

Clinical case 4.

A 68-year-old patient. She was admitted to the gynaecologic department with complaints of gradual increase in abdominal volume, especially notes a significant increase in its volume over the past month, pain and fever. Physiological functions are normal. At the gynaecological examination: practically the whole abdominal cavity is occupied by a tight elastic consistency formation up to 30×25×18 cm, immobile. The uterine body and its appendages are not determined separately. According to ultrasound findings: the entire abdominal cavity (the upper right border of the tumour is located at the edge of the liver) is occupied by a cystic-solid mass with a predominantly solid component, with a wall component and anechogenic inclusions. CA-125 in blood is 675 IU/L. Diagnosis? Management plan?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

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3. Кулаков, В. И. Кулаков, В. И. Гинекология: национальное руководство / В. И. Кулаков, Г. М. Савельева, И. Б. Манухин. – Москва: ГЭОТАР-Медиа, 2022.

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5. Опухоли яичников / Ю. Е. Доброхотова, К. В. Морозова, М. Г. Венедиктова, М. Д. Тер-Ованесов. – Москва: ГЭОТАР-Медиа, 2019.

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7. Венедиктова, М. Г. Онкогинекология в практике врача-гинеколога / М. Г. Венедиктова, Ю. Е. Доброхотова. – Москва: ГЭОТАР-Медиа, 2015.

Topic 15. ANOMALIES OF DEVELOPMENT OF FEMALE GENITAL ORGANS

Motivation:

Congenital malformations of female genital organs account for 4% of all congenital developmental anomalies. In recent years, there is a tendency to increase the frequency of detection of malformations of various organs and systems, including genital malformations, which may be due not only to the deterioration of the environmental situation, but also to the improvement of methods of diagnosis. The causes of congenital malformations of the uterus and vagina have not been sufficiently studied to date, so it is impossible to establish all the factors that could be used to justify malformations in each specific case. All teratogenic factors can be divided conditionally into the following groups: a) genetic, determining male and female sexual differentiation; b) external (environment, trauma, teratogenic effects); c) internal (enzymes, hormones). It is established that the formation of a particular malformation depends on the period of embryogenesis, during which the pathogenic factor exerts its effect. The most responsible period in the formation of the female genital system is the 9^{th} week of intrauterine development. The close embryonic connection of the genital and urinary systems causes a frequent combination of malformations of their development (10–100%). Malformations of the uterus and/or vagina are characterized by sexual dysfunction (impossibility of sexual intercourse in vaginal aplasia, pain in vaginal doubling) and reproductive function (infertility is noted in 11–32% of patients with uterine malformations, and the incidence of pregnancy failure ranges from 23% to 86%).

Given the complexity of diagnosis of uterine and vaginal malformations, there are often difficulties in treatment. To date, the consequence of diagnostic errors is the untimely performance of operations or, conversely, the performance of unwarranted surgical interventions in 24–34% of patients, which makes it necessary to include this topic in the training of a general practitioner.

Purpose of the class:

To study the etiology, pathogenesis, classification, clinical picture, diagnosis of the main forms of anomalies and malformations of the female genital organs; as well as the principles of their modern treatment.

Objectives of the class:

1. To study the embryogenesis of the uterus and vagina.
2. To study the etiology of malformations of the uterus and vagina.
3. To get acquainted with the classification of malformations of the uterus and vagina.
4. To study the features of clinical manifestations of uterine and vaginal malformations.
5. To study the methods of diagnosis of uterine and vaginal malformations.
6. To study the methods of treatment of this pathology. Indications for reconstructive-plastic operations.
7. The course and management of pregnancy and labour in patients with anomalies of uterine and vaginal development.

Topic issues addressed:

1. Stages of embryonic development of the uterus and vagina: appearance of Müllerian tracts – 4 weeks of gestation; appearance of Müllerian ducts – 6–8 weeks of gestation; growth of Müllerian ducts in medial and further in caudal direction up to urogenital sinus – 8–12 weeks of gestation; formation of Müllerian tubercle – 9 weeks; fusion of Müllerian ducts with the formation of the cervix and uterus – 7–11 weeks of gestation; with formation of the vagina – 11–14 weeks of gestation; with fusion of uterine horns – 12–16 weeks of gestation; formation of vaginal vaults – 12–16 weeks of gestation; formation of the vagina to the hymen – 16–20 weeks of gestation.
2. Definition of congenital malformations of the uterus and vagina – aplasia, rudimentary organ.
3. Etiology of malformations – exogenous and endogenous factors.
4. Aplasia of the vagina and uterus (Rokitansky-Kuester-Hauser syndrome): complaints, diagnosis, indications for surgical treatment, prognosis for sexual life and reproductive function.
5. Doubling of the uterus and vagina: classification, complaints, diagnosis, indications for reconstructive-plastic surgery, peculiarities of pregnancy and labour.
6. Unicornuate uterus: classification, complaints, correlation with endometriosis, ectopic pregnancy, diagnosis, indications for removal of the rudimentary horn, peculiarities of the operation, prognosis for reproductive function, peculiarities of the course of pregnancy and childbirth.

7. Intrauterine septum: classification, complaints, peculiarities of reproductive function, diagnosis, indications for metroplasty, peculiarities of the course of pregnancy and labour.

8. Bicornuate uterus: classification, complaints, clinic, diagnosis, indications for reconstructive-plastic surgeries, peculiarities of pregnancy and labour.

Questions for the lecture:

1. Definition of congenital malformations of female genital organs.
2. Historical overview.
3. Stages of embryologic development of the uterus and vagina.
4. Etiology and pathogenesis of uterine and vaginal malformations.
5. Classification of uterine and/or vaginal malformations.
6. Aplasia of the vagina and uterus.
7. Aplasia of the vagina with a functioning uterus.
8. Unicornuate uterus.
9. Bicornuate uterus.
10. Doubling of uterus and vagina.
11. Intrauterine septum.

Topic mastery standard.

After completion of the topic, the student should know:

1. Embryogenesis of the uterus and vagina.
2. Etiologic factors of uterine and/or vaginal malformations.
3. Clinical manifestations of uterine and/or vaginal malformations.
4. Methods of examination to establish the diagnosis of this pathology.
5. Modern methods of treatment of uterine and/or vaginal malformations.

It is necessary to be able to:

1. Competently collect a history of suspected uterine and/or vaginal malformation.
2. Draw up an examination plan for a patient with uterine and/or vaginal malformation.
3. Correctly inform the patient of the need for the proposed methods of examination.
4. Interpret the results of the examination.
5. Make a presumptive diagnosis and make a referral to a specialized institution.
6. Inform the patient about the diagnosis, observing the rules of medical ethics and deontology.

Questions for self-study:

1. Causes of genital malformations.
2. What is aplasia?
3. What is a rudimentary organ?
4. Complaints in aplasia of the vagina and uterus.
5. What are the genotype and phenotype in aplasia of the vagina and uterus?
6. Methods of correction of aplasia of the vagina.
7. What is the prognosis for sexual and reproductive function in aplasia of the vagina and uterus?
8. What are the indications for surgical treatment and the scope of surgery in unicornuate uterus with a rudimentary horn?
9. Methods of examination in bicornuate uterus.
10. What are the indications for metroplasty in bicornuate uterus?
11. Clinical picture of uterine and vaginal doubling.
12. Indications for metroplasty for intrauterine septum.

Clinical case 1.

A 24-year-old patient was admitted to the gynecological department with complaints of inability to have a sexual intercourse and absence of menstruation. She first went to the district gynecologist at the age of 18 for the absence of menstruation. Hypoplasia of the uterus was detected, cyclic hormone therapy was prescribed for 6 months with no effect. She did not turn to doctors anymore. At the age of 24 she got married, during the first coitus – sharp soreness, abundant bloody discharge. Later, taking into account the impossibility of sexual intercourse, she gave up sexual life. Divorced.

Gynecological examination: external genitalia are properly developed, female-type hair distribution (pilosis). The vaginal vestibule has the appearance of a hymen, in which there is a niche up to 1.5 cm deep, expressed scarring changes in the vaginal vestibule. At rectoabdominal examination the uterus is not determined in the typical place, a transverse mass is palpated in the pelvis, on both sides of which there are club-shaped thickenings of 2×2 cm each. Uterine appendages are not defined, their area is painless.

Ultrasound: the uterus is not visualized, ovaries are located high, the right ovary is 3.6×2.0×1.8 cm, there is a follicle 1.5 cm in diameter, the left ovary is 2.7x×2.0×2.7 cm.

Renal ultrasound: aplasia of the right kidney, left kidney doubled, pelvic dystopia.

Karyotyping – 46,XX.

Diagnosis, management plan? Prognosis in terms of reproductive function?

Clinical case 2.

A 14-year-old female patient was admitted to the pediatric gynaecology department with complaints of persistent lower abdominal pain, which becomes tumescent during menstruation. She was born from the first pregnancy, the second of twins (her sister is healthy), pregnancy and labour in the mother proceeded without complications. Mother's work is related to pesticides. First menstruation – at the age of 13, moderate, painless, subsequent menstruation – very painful, she took antispasmodics and analgesics. Gynaecological status: external genitalia are developed correctly, vagina of medium capacity, pale pink colour, cervix of conical shape. A sharp bulging of the right half of the anterior vaginal wall with the size of 10×8 cm was noted, the left vault was difficult to examine. Rectoabdominal examination: at 2–3 cm from the anteroposterior opening a mass of 10×6×5 cm is palpated, at the upper pole of which two tight elastic dense masses (uterus?) are determined, appendages are not determined, their area is painless.

Ultrasound: two uteruses are detected. The size of the right uterus is 3.7×3.6×4.6 cm, the length of its cervix is 1.8 cm, the uterine cavity is dilated to 1.8 cm. The right vagina is dilated due to fluid content with the dimensions of 10.2×6.4×8.6 cm, a mass with fluid content with the dimensions of 3.5×2.2×4.4 cm (hematosalpinx) was detected on the right side of the uterus. The size of the right ovary is 3,5×1,8×3,1 cm. The size of the left uterus is 3,7×2,8×4,4 cm, its cervix is 2,1 cm, the uterine cavity is not dilated. The size of the left ovary is 2,8×1,4×2,7 cm. The uteruses are separated from each other throughout.

Renal ultrasound: aplasia of the right kidney, the left kidney – in a typical place, size 12,9×5,0×7,5 cm. Diagnosis and management plan?

Clinical case 3.

A 24-year-old patient was delivered to the gynaecological department by ambulance with complaints of bloody discharge from the genital tract against the background of 2-week delay of menstruation, nagging pains in the lower abdomen for one day. Hb 85 g/l. Menstrual function without peculiarities. There is a history of 2 premature births

by cesarean section. She does not protect herself from pregnancy. Examination revealed a complete septum in the vagina, two cervixes without visible pathology. The discharge is bloody, with clots, abundant. The right uterus is slightly larger than normal, soft consistency. The left uterus is not enlarged. The area of appendages is palpable without peculiarities.

Diagnosis and management plan? What method of contraception should be recommended?

Clinical case 4.

A 36-year-old patient came to the clinic with complaints of recurrent miscarriage. From the anamnesis: menstrual function without peculiarities, sexual life since the age of 20, married. Pregnancies – 3, ended with spontaneous miscarriages up to 12 weeks of pregnancy with subsequent curettage of the uterine cavity walls, removal of the remains of the foetal egg. The curettage revealed deformation of the uterine cavity in the area of the fundus, apparently due to septum. Infectious and hormonal genesis of recurrent miscarriage was rejected. Diagnosis? Management plan?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

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Topic 16. ANOMALIES OF POSITION OF FEMALE GENITAL ORGANS

Motivation:

The problem of abnormal position of internal genitalia, and to a greater extent their prolapse also affects the interests of allied specialties of gynaecology: urology and proctology. This problem worldwide is not only medical, but also social, not only because it is widespread, but also because of the severity and diversity of clinical manifestations affecting the most intimate aspects of the female body. A general practitioner needs to know the main clinical manifestations of this pathology, the correctness and sequence of anamnesis collection, features and principles of examination of this category of patients. Knowledge and skills acquired during the study of this topic will help to correctly understand the principles of interaction and continuity of specialists: urologists, proctologists and gynaecologists, to master the algorithms of management of patients with anomalies of the position of the internal genital organs in different age groups.

Purpose of the class:

To systematize knowledge on normal anatomy and physiology of the pelvic floor and pelvic organs, to master the main etiopathogenetic mechanisms of development of anomalies of the position of internal genital organs, to get acquainted with the principles of pelvic surgery and modern innovative methods of surgical treatment of anomalies of the position of internal genital organs in women.

Objectives of the class:

1. To study the basics of etiology and pathogenesis of the development of anomalies of the position of internal genital organs, where a special place is taken by the topic of pelvic organ prolapse.
2. To study the clinical manifestations of genital prolapse.
3. To get acquainted with the algorithm of examination of patients of this category.
4. To get acquainted with the modern differentiated approach to treatment, including the use of innovative technologies in pelvic surgery, as well as the issues of postoperative rehabilitation.

Topic issues covered:

1. Anatomical features of the uterus, fixing apparatus of the uterus (suspensory, supporting and fixing), the concept of the pelvic floor (muscles, fascia, the concept of pelvic diaphragm and urogenital dia-

phragm, mutual location and function of pelvic organs); the concept of normal position of the uterus.

2. Modern ideas about the etiology and pathogenesis of the development of anomalies of the position of internal genital organs (the concept of connective tissue dysplasia, vaginal delivery, birth traumatism, hereditary factors, chronic bronchopulmonary diseases, chronic constipation, heavy physical labour, surgery on the pelvic organs, tumours and chronic inflammatory diseases of the pelvic organs).

3. Classification of position anomalies – anomalies of position (anteposition, retroposition, lateroposition), inclination (anteversion, retroversion, dextraversion, sinistroversion) and uterine kink (hyperanteflexia, hyperretroflexia).

4. Classification of prolapse and prolapse of internal genital organs (pelvic organ prolapse) (according to Malinowski, quantitative classification POP-Q). Clinical manifestations of pelvic organ prolapse, including urologic – urinary incontinence (stress, urgency, mixed) and proctologic symptoms.

5. Methods of examination of patients with pelvic organ prolapse: Valsalva test, cystography, cystourethrography, bladder ultrasound, CUDI (complex urodynamic study), pelvic floor MRI, defecography. Principles of assessment of signs of connective tissue dysplasia.

6. Issues of social dysadaptation of women with this pathology and deterioration of the quality of life.

7. Algorithm of management of patients with anomalies of the position of internal genital organs (pelvic organ prolapse). Modern approach and type of surgical aid in correction of pelvic floor failure and pelvic organ dysfunction in genital prolapse depending on age, type of prolapse, degree of severity of pelvic organ dysfunction, concomitant genital pathology (uterine myoma, ovarian tumours, chronic cervicitis, cervical ectopia, cervical ruptures, perineal incompetence).

8. Modern principles of pelvic surgery in patients with prolapse of internal genital organs: operations of vaginal, abdominal and laparoscopic access (vaginal hysterectomy, including the Manchester operation, laparoscopic sacro-colpovaginopexy with mesh prosthesis, Birch operation and various midurethral sling operations for stress incontinence); types and differences of various mesh implants.

Issues covered in the lecture:

1. Anatomical features of the uterus, the fixing apparatus of the uterus (suspensory, supporting and anchoring), the concept of the pelvic floor (pelvic diaphragm, urogenital diaphragm), the concept of normal uterine position.

2. Modern ideas about the etiology and pathogenesis of the development of anomalies of the position of the internal genital organs.

3. Classification of position anomalies – anomalies of position (anteposition, retroposition, lateroposition), inclination (anteversion, retroversion, dextraversion, sinistroversion) and uterine inflection.

4. Internal genital prolapse (pelvic organ prolapse): types of modern classifications of pelvic organ prolapse, the concept of complex, recurrent and posthysterectomy prolapse; dysfunction of neighbouring organs (various types of urinary incontinence – stress, urgent, mixed; faecal incontinence).

5. Methods of examination and preoperative preparation.

6. Modern approach to treatment (types of conservative and surgical treatment). Modern differentiated approach to surgical treatment of pelvic organ prolapse, prevention of recurrences. Modern mesh implants used in pelvic surgery.

Topic mastery standard.

After completion of the topic, the student should know:

1. Anatomical interposition of the pelvic organs, fixing – suspending, fixing and supporting apparatus of the uterus.

2. Classification of anomalies of the position of the internal genital organs of the woman – displacement of the uterus in the horizontal plane, in the vertical plane, around the longitudinal axis.

3. Etiology, pathogenesis of the development of anomalies of the position of internal genital organs.

4. Etiology, pathogenesis of pelvic organ prolapse.

5. Clinical manifestations of pelvic organ dysfunction in the development of pelvic organ prolapse.

6. Methods of examination in pelvic organ prolapse.

7. The main types and indications for conservative treatment of internal genital prolapse.

8. Modern aspects of pelvic surgery and issues of continuity of doctors of related specialties.

9. Algorithm of preoperative preparation and postoperative management of patients with genital prolapse.

10. Issues of postoperative rehabilitation.

11. The significance of this pathology as a social problem of the female population.

It is necessary to be able to:

1. Independently collect anamnesis of gynaecological patients admitted to the hospital with anomalies of the position of internal genital organs.

2. Correctly perform gynaecological examination and tests during the examination.

3. Interpret the results of the examination and differentiate various symptoms of pelvic floor dysfunction.

4. Interpret the results of special examination methods in patients with pelvic organ prolapse and dysfunction of the neighbouring organs.

5. Inform the patient about her health condition, examination and treatment methods (including those using innovative technologies).

Questions for self-study:

1. Normal position of internal genital organs and factors that ensure this position.

2. Fixing apparatus of the uterus: suspending, fixing, supporting apparatus.

3. The concept of the structure of the pelvic floor of a woman.

4. Types of abnormal positions of internal genital organs.

5. Causes of abnormal uterine positions, including uterine prolapse.

6. Pelvic organs prolapse: etiology, factors contributing to the development of the disease.

7. Main classifications of pelvic organ prolapse.

8. The concept of complex genital and posthysterectomy prolapse. Structures involved in the pathologic process.

9. Clinical picture of pelvic organ prolapse.

10. Main stages of examination of patients with pelvic organ prolapse.

11. Methods of conservative treatment.

12. Surgical approach and indications for surgical treatment of pelvic organ prolapse. The main types of surgical aids.

13. Innovative technologies in the treatment of pelvic organ prolapse. Types of synthetic implants and the main stages of installation.

Clinical case 1.

A 55-year-old female patient visited a gynaecologist with complaints of constant nagging pains in the lower abdomen, sensation of a foreign body in the perineal area, and difficulty urinating. In the anamnesis – large fetus delivery complicated by a second degree perineal rupture. Postmenopause 4 years. Gynaecological status: the genital slit is gaping, there is a divergence of the crura of the muscles lifting the anus (levator ani); when pushing outside the vulvar ring the uterine body is detected. The length of the perineum is 2 cm. The cervix is elongated, scar-deformed and hypertrophied. The uterine appendages are without peculiarities. Diagnosis? Additional methods of examination? Treatment?

Clinical case 2.

A 45-year-old patient visited a gynaecologist with complaints of foreign body sensation in the perineal area, urinary incontinence when coughing and physical activity, gas incontinence, pain and discomfort during intimacy. There is a history of 3 vaginal deliveries accompanied by episiotomy twice. These sensations appeared in the patient after the third childbirth and are gradually increasing. On examination, the genital slit is gaping; when pushing, the cervix, anterior and posterior vaginal walls reach the area of the vaginal entrance. When coughing, urine is discharged from the urethra. The length of the perineum is 2.5 cm. Diagnosis? Methods of examination? Treatment?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

3. Кулаков, В. И. Гинекология: национальное руководство / В. И. Кулаков, Г. М. Савельева, И. Б. Манухин. – Москва: ГЭОТАР-Медиа, 2022.

4. Гинекология: практикум / под ред. В. Е. Радзинского. – Москва, 2020.

5. Радзинский, В. Е. Перинеология. Эстетическая гинекология / В. Е. Радзинский, М. Р. Оразов, Л. Р. Токтар; под ред. В. Е. Радзинского. – Москва, 2022.

Topic 17. TROPHOBLASTIC DISEASE

Motivation:

Trophoblastic disease is a pathological condition of the trophoblast associated with pregnancy (miscarriage, abortion, ectopic pregnancy, delivery). The disease occurs, according to WHO, with a frequency of 1:3000 pregnancies. The greatest danger is such a form of trophoblastic disease as choriocarcinoma, which develops from the epithelium of the trophoblast, containing elements of the cytotrophoblast and syncytiotrophoblast relating to true malignant tumours. The disease is characterized by a malignant course and hematogenous metastasis. In this case, hematogenous metastasis of choriocarcinoma does not exclude the lesion of any organ (lung, brain, liver, kidney, spleen, intestine, bone), which creates conditions for a variety of clinical manifestations of metastases of the disease. Thus, metastatic lesions of the lungs can occur with dyspnea, cough with sputum, hemoptysis, pain in the chest at the subpleural location of metastases.

A general practitioner needs to know the clinical course and diagnosis of trophoblastic disease, because due to the lack of oncological vigilance, the diagnosis is established late and patients are admitted to the clinic with disseminated tumour process.

Purpose of the class:

To study the etiology, pathogenesis, clinical picture, diagnosis and treatment of trophoblastic disease.

Objectives of the class:

1. To study the clinical course of fulminant vesicoureteral disease.
2. To study the clinical course of invasive (destructive) hydatidiform mole (cystic mole).
3. To study the clinical course of choriocarcinoma.
4. To study the clinical course of rare types of trophoblastic disease (placental bed trophoblastic tumour, epithelioid trophoblastic tumour).
5. To study the methods of treatment of trophoblastic disease.

The topic questions addressed are:

1. Trophoblastic disease – definition, clinical forms.
2. Etiology and pathogenesis of trophoblastic disease.
3. Clinical picture of different variants of trophoblastic disease.
4. Methods of examination of women with suspected trophoblastic disease (ultrasound, radiography, clinical analysis of blood and urine, biochemical analysis of blood, blood test for hCG).

5. Prognostic factors in cystic mole.

6. Modern methods of treatment of trophoblastic disease (surgical treatment, chemotherapy, radiation treatment).

7. Surveillance of women after trophoblastic disease.

8. Observation of pregnancy in patients after trophoblastic disease.

Questions for the lecture:

1. Definition of the concept of trophoblastic disease.
2. Classification of trophoblastic disease.
3. Etiology and pathogenesis of trophoblastic disease.
4. Partial cystic mole. Features of the clinical course.
5. Invasive (destructive) cystic mole – a transitional form of trophoblastic disease. Clinical picture, morphology.
6. Choriocarcinoma, true malignant tumour. Morphologic picture. Pathways of metastasis.
7. Rare types of trophoblastic disease. Trophoblastic tumour of the placental bed, epithelioid trophoblastic tumour.
8. Classification of stages of trophoblastic disease.
9. Methods of diagnosis of trophoblastic disease.
10. Methods of treatment of trophoblastic disease, their possibilities and disadvantages.

The standard of mastering the topic.

After completion of the topic, the student should know:

1. Definition of trophoblastic disease.
2. Forms of trophoblastic disease.
3. Classifications of stages of trophoblastic disease.
4. Clinical picture of trophoblastic disease.
5. Diagnosis of trophoblastic disease.
6. Treatment of trophoblastic disease (surgical, chemotherapy, radiation therapy).
7. Follow-up of patients after trophoblastic disease.
8. Management of pregnancy after trophoblastic disease.

Need to be able to:

1. Competently collect a history from a patient with suspected trophoblastic disease.
2. Make a plan of examination and inform the patient about the necessary methods of research.
3. Evaluate additional investigation methods: ultrasound, hCG blood test, MRI, CT scan, histologic report, radiographs.

4. Inform the patient about the results of the examination and diagnosis, observing the principles of medical ethics and deontology.

5. Refer the patient with trophoblastic disease to a specialized medical institution to provide her with highly qualified (high-tech) medical care.

Questions for self-preparation:

1. Definition of the concept of trophoblastic disease.
2. Forms of trophoblastic disease.
3. Classification of stages of trophoblastic disease.
4. Diagnosis of trophoblastic disease. What are the errors encountered in the diagnosis of trophoblastic disease?
5. Treatment of trophoblastic disease.
6. What are the prognostic factors in cystic mole?
7. How are patients monitored after trophoblastic disease?
8. How to manage pregnancy after trophoblastic disease?

Clinical case 1.

A 25-year-old patient delivered by ambulance to the gynaecological department with complaints of severe cramp-like pain in the lower abdomen. Menstruation since 13 years old, 4 days in 21 days, regular, painless, moderate. The last normal menstruation was 3 months ago. Sexual life since 20 years of age. Pregnancies 5: 2 births and 3 elective abortions, without complications. She denies gynaecological diseases. A month ago the patient underwent an artificial termination of pregnancy at 8 weeks in hospital. She was discharged on the 2nd day in a satisfactory condition. One month after, on the day of admission, there appeared aching pains in the lower abdomen, which intensified and turned into cramp-like pains. On objective examination – moist, clean tongue. The abdomen is soft, painful in the lower parts. There are no symptoms of peritoneal irritation. Urination is frequent. At two-handed vaginal-abdominal examination – external cervical os is closed, cervix of usual density. The uterine body is enlarged up to 6 weeks of pregnancy, soft-elastic consistency, painful. The appendages are not palpated, the vaults are free. Diagnosis? Management plan?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

3. Кулаков, В. И. Гинекология: национальное руководство / В. И. Кулаков, Г. М. Савельева, И. Б. Манухин. – Москва: ГЭОТАР-Медиа, 2022.

4. Гинекология: практикум / под ред. В. Е. Радзинского. – Москва, 2020.

5. Трофобластическая болезнь / М. Г. Венедиктова, Ю. Е. Доброхотова, К. В. Морозова, М. Д. Тер-Ованесов. – Москва: ГЭОТАР-Медиа, 2019.

6. Венедиктова, М. Г. Онкогинекология в практике врача-гинеколога / М. Г. Венедиктова, Ю. Е. Доброхотова. – Москва: ГЭОТАР-Медиа, 2015.

Topic 18. EMERGENCY CONDITIONS IN GYNAECOLOGY

Motivation:

One of the most challenging problems in emergency medicine is the choice of management tactics for a patient presenting with acute abdominal pain. Acute pain can be a sign of an abdominal catastrophe and delaying emergency surgical intervention can be life-threatening, such as in ectopic pregnancy. However, even more often acute abdominal pain is a symptom of diseases in which surgical intervention is not required. In acute abdominal pain, the clinical picture is not always clear enough, and the practitioner needs to make a decision in a short time on the choice of diagnostic measures. When providing emergency care to the patient, the doctor has to carry out differential diagnosis of various extragenital diseases with acute gynaecological pathology, which often have the same clinical symptomatology. Knowledge and skills acquired during the study of this topic will help a general practitioner to recognize the life-threatening condition of the patient, correctly interpret the data of anamnesis, additional methods of research, in the shortest possible time to establish a diagnosis and provide emergency care.

Purpose of the class:

To study gynecological diseases occurring with the symptom complex of "acute abdomen", their clinical picture, diagnosis and treatment.

Objectives of the class:

1. To study the causes of "acute abdomen" in gynaecology.
2. To study the most characteristic complaints of "acute abdomen" in gynaecology.
3. To study the peculiarities of anamnesis of women with clinical manifestations of "acute abdomen".
4. To study the peculiarities of general and gynaecological examination of patients with the clinical manifestations of "acute abdomen".
5. Additional methods of investigation in the diagnosis of "acute abdomen".
6. Features of anamnesis, clinical picture, diagnostics and treatment of disturbed ectopic pregnancy.
7. To study the pathogenesis, clinical picture, diagnosis and treatment of ovarian apoplexy.
8. To study the clinical picture, diagnosis and treatment of ovarian tumour pedicle torsion.

9. To study the clinical picture, diagnosis and treatment of inflammatory diseases of female genital organs in which peritonitis occurs.

10. To study the differential diagnosis with extragenital diseases in “acute abdomen” in gynaecology.

The topic questions addressed are:

1. Causes of ""acute abdomen” in gynaecology.
2. Etiology, pathogenesis clinical picture, diagnosis and treatment of disturbed ectopic pregnancy.
3. Etiology, pathogenesis, clinical picture, diagnosis and treatment of ovarian apoplexy (hemorrhagic form).
4. Etiology, pathogenesis, clinical picture, diagnosis and treatment of ovarian tumour pedicle torsion.
5. Etiology, pathogenesis, clinical picture and treatment of impaired vascularization and nutrition of the myomatous node.
6. Etiology, pathogenesis, clinical picture and treatment of acute purulent inflammatory diseases of the small pelvis.
7. Differential diagnosis between acute gynaecological diseases leading to “acute abdomen”.
8. Differential diagnosis of acute gynaecological diseases with extragenital pathology.

Questions for the lecture:

1. Definition of “acute abdomen” in gynaecology.
2. Causes of “acute abdomen”.
3. Causes of bleeding into the abdominal cavity.
4. Management tactics in intra-abdominal bleeding.
5. Differential diagnosis of appendicitis and acute salpingoophoritis.
6. Timing of operative treatment in purulent formations of the small pelvis.
7. Clinical picture of ischemia of abdominal cavity organs.
8. Features of the patient's behaviour in diseases accompanied by “acute abdomen”.

The standard for mastering the topic.

After completion of the topic the student should know:

1. Causes of “acute abdomen” in gynaecology.
2. Etiology, pathogenesis, clinical picture, medical tactics in diseases accompanied by intra-abdominal bleeding.
3. Etiology, pathogenesis, clinical picture, medical tactics in diseases accompanied by impaired blood supply in the abdominal cavity organs.
4. Etiology, pathogenesis, clinical picture, medical tactics in acute purulent inflammatory diseases of the pelvic organs.

It is necessary to be able to:

1. Competently collect anamnesis of a patient with clinical picture of "acute abdomen".
2. Make a plan for emergency examination in "acute abdomen".
3. Correctly interpret the results of the examination.
4. Diagnose intra-abdominal bleeding from the pelvic organs and determine the tactics of treatment.
5. Diagnose ovarian torsion, impaired nutrition or torsion of a myomatous node and determine the medical tactics for this pathology.
6. Diagnose and determine the necessary measures in case of perforation of purulent tuboovarian tumour.

Questions for self-preparation:

1. Classification of emergency conditions in gynaecology.
2. Clinical picture of disturbed ectopic pregnancy.
3. The scope of surgical treatment in ectopic pregnancy.
4. Clinical picture of ovarian apoplexy.
5. The scope of operative treatment in ovarian apoplexy.
6. Differential diagnosis of gynaecological diseases accompanied by intra-abdominal bleeding.
7. Clinical picture of ovarian tumour torsion.
8. Volume of operative treatment in ovarian tumour torsion.
9. Clinical picture of impaired vascularization and nutrition of a myomatous node.
10. Choice of treatment method in case of impaired vascularization and nutrition of a myomatous node.
11. Differential diagnosis of acute gynaecological diseases caused by circulatory disturbance.
12. Clinical picture of perforation of purulent inflammatory formation of uterine appendages.
13. Differential diagnosis of peritonitis in purulent inflammatory diseases of pelvic organs.

Clinical case 1.

A 32-year-old woman was admitted with complaints of sharp pains in the lower abdomen, more on the right side, dry mouth. From the anamnesis: there was one pregnancy, ended with a medical abortion at 6 weeks, without complications. Over six months, repeated ultrasound examination revealed a cyst of the left ovary up to 5 cm in diameter. Antibacterial therapy was performed once. She became acutely ill, when she got out of bed, she had a cramp-like pain in the lower abdomen, she could not unbend. She took nostrum. Objectively: tension of muscles of the anterior abdominal wall, positive peritoneal symptoms. At two-handed examination the uterine body is sensitive on palpation, on the left side of the uterus there is a sharply painful, restricted mobile mass up to 6–7 cm in diameter. Diagnosis? Examination? Treatment?

Recommended reading.

1. Гинекология: учебник для вузов / под ред. Г. М. Савельевой, В. Г. Бреусенко. – Москва: ГЭОТАР-Медиа, 2022.

2. Клиническое руководство по гинекологии / под ред. Ю. Э. Доброхотовой. – Санкт-Петербург: Скифия-принт; Москва: Профмедпресс, 2022. – 540 с.

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4. Гинекология: практикум / под ред. В. Е. Радзинского. – Москва, 2020.

5. Рухляда, Н. Н. Острый живот в гинекологии / Н. Н. Рухляда, С. В. Винникова, Л. Ш. Цечоева. – Москва: ГЭОТАР-Медиа, 2023.

APPENDIX

Standards of answers to the clinical cases

(some examples of answers to clinical cases are indicated)

Topic 4. Inflammatory diseases of female genital organs.

Clinical case 1.

Diagnosis: Acute colpitis, cervicitis.

Management plan – microscopic, microbiologic examination, PCR – diagnostics of infections, colposcopy, cytologic examination, antibacterial therapy. Histologic examination (biopsy) if there is no effect from the treatment within 2 weeks.

Clinical case 2.

Diagnosis: Acute metroendometritis. Condition after the artificial abortion.

Management plan – examination (clinical blood test, ultrasound examination, bacterioscopic and bacteriologic examination, PCR-diagnostics). Anti-inflammatory treatment (antibacterial, detoxification, vitamin therapy, prevention of candidiasis, intestinal dysbacteriosis, physiotherapy).

Clinical case 3.

Diagnosis: Exacerbation of chronic salpingoophoritis. Tuboovarian mass of inflammatory etiology on the left side.

Management plan – clinical examination, including ultrasound examination. Bacterioscopic, bacteriologic examination, PCR-diagnosis of infection. Anti-inflammatory treatment, including antibacterial, detoxification treatment, physical therapy with subsequent decision on surgical treatment.

Clinical case 4.

Diagnosis: Acute 2-sided salpingoophoritis. Pelvioperitonitis.

Management plan – clinical examination (clinical blood test, ultrasound examination, bacterioscopic, bacteriologic examination, PCR-diagnostics) followed by anti-inflammatory treatment.

Clinical case 5.

Diagnosis: Acute colpitis (trichomoniasis?).

Management plan – bacterioscopic and bacteriologic examination, PCR-diagnosis, followed by treatment.

Clinical case 6.

Diagnosis: Exacerbation of chronic 2-sided salpingoophoritis. Genital tuberculosis. Pelvioperitonitis. Ovarian dysfunction of the reproductive period. Infertility 1.

Management plan – clinical examination followed by specific treatment in a specialized tuberculosis department.

Clinical case 7.

Diagnosis: Chronic 2-sided salpingoophoritis. Genital tuberculosis. Ovarian dysfunction of the reproductive period. Infertility 1.

Management plan – examination and treatment in a specialized tuberculosis department.

Clinical case 8.

Diagnosis: Acute metroendometritis on the background of an IUD.

Management tactics – intensive anti-inflammatory therapy after taking smears for microflora and bacterial culture (antibiotics, infusion therapy, antihistamines, vitamins), IUD removal.

Clinical case 9.

Diagnosis: Subacute bilateral adnexitis. Tuboovarian mass of inflammatory etiology on the left. Pyovar?

Management plan – preparation for surgical treatment, antibacterial therapy. In the absence of effect – surgical treatment. Adnexectomy. The question about the volume of surgery to decide during the operation.

Topic 14. Ovarian cancer.

Clinical case 1.

Answer: Ovarian cancer. To verify the diagnosis and relieve the patient's condition, paracentesis and puncture of the left pleural cavity are performed.

Clinical case 2.

Answer: The diagnosis is differentiated between sigmoid colon cancer and ovarian cancer. Colonoscopy is indicated to clarify the diagnosis.

Clinical case 3.

Answer: Clinically, the patient has purulent-inflammatory process in the left uterine appendages. In terms of examination it is necessary to study the general clinical blood test, to take smears from the genital tract for the presence of sexual infection and sensitivity to antibiotics, according to which to prescribe specific anti-inflammatory treatment.

Clinical case 4.

Answer: Malignant ovarian tumour of giant size. Surgical treatment with preliminary examination of the gastrointestinal tract in order to exclude the primary tumour lesion of the stomach and colon.

Topic 16. Anomalies of position of female genital organs.

Clinical case 1.

Answer: Aplasia of the vagina and uterus. Aplasia of the right kidney, doubling and dystopia of the left kidney. Creation of an artificial vagina from the pelvic peritoneum with laparoscopic assistance is indicated. Realization of reproductive function – surrogate motherhood.

Clinical case 2.

Diagnosis: Doubling of the uterus and vagina with partial aplasia of the right vagina. Hematocolpos of the right closed vagina, hematometra of the right uterus, hematosalpinx on the right. Aplasia of the right kidney.

Surgical treatment is necessary: Opening and emptying of hematocolpos, vaginoplasty. Laparoscopy, hematosalpinx emptying, abdominal cavity sanation.

Clinical case 3.

Diagnosis: Doubling of the uterus and vagina. Small-term pregnancy in the right uterus. Miscarriage has begun. Scar on the uterus after caesarean section. Aggravated obstetric history. Anemia II.

Tactics: β-hCG test. Ultrasound of the pelvic organs. Emergency scraping of the walls of the right uterine cavity, removal of the remains of the foetal egg. Anti-anemic, anti-inflammatory therapy. Hormonal contraception. Examination of the urinary system, ultrasound of the kidneys. The patient needs hormonal contraception.

Clinical case 4.

Diagnosis: Malformation – incomplete intrauterine septum. Recurrent miscarriage.

Management plan – clinical, laboratory and instrumental examination, including ultrasound, hysteroscopy. Treatment: hysteroresectoscopy – excision of the septum in the uterine cavity.

Plan of clinical history

Outline of the clinical history in gynaecology

I. **Passport part.**

1. Full name.
2. Age.
3. Profession.
4. Address.
5. Time of admission.
6. Date on which the curation began.

II. **Complaints (at the time of admission).**

III. **Anamnesis.**

1. Heredity.
2. Past somatic diseases.
3. Allergologic history.
4. Hormone therapy.
5. Hemotransfusions.
6. Menstrual function:

a) the first time menstruating (menarche);

b) after what time it was established, if not established at once, then during this period what type and character it had;

c) type of menstruation: how many days it lasts, after what time it comes;

d) character of menstruation: amount of blood (abundant, moderate, scanty); painful or painless.

If painful, the time of pain (before menstruation, in the first days) and its duration.

The nature of the pains: cramp-like, constant, aching, etc.;

e) whether menstruation has changed since the beginning of sexual activity, after childbirth, what the changes were;

f) the date of the last normal menstruation (beginning and end). If it was not normal, how it differed from normal.

7. Secretory function (secretions):

a) when the discharge appeared;

b) quantity (copious, moderate, scanty);

c) constant or periodic discharge. If periodic, whether it is associated with menstruation;

d) character of discharge – colour (white, yellow, green, bloody); odour (odourless, pungent);

Whether they irritate surrounding tissues; consistency (liquid, thick, curd-like).

8. Sexual activity:

a) the onset of sexual activity;

b) whether sexual activity is regular;

c) whether the patient has a casual sexual intercourse;

d) pain during intercourse;

e) blood after intercourse;

f) protection against pregnancy.

9. Childbearing function:

a) how long after the onset of sexual intercourse did pregnancy occur (whether contraception was used during this time);

b) how many pregnancies have occurred. List all pregnancies in chronological order, how each one proceeded. For childbirth, indicate normal or pathologic, whether there were obstetric operations, the course of the postpartum period, and whether the child is alive.

For abortions, indicate whether spontaneous or induced, at what term the abortion occurred or was performed. In case of spontaneous or out-of-hospital abortion, note whether there was a subsequent scraping of the uterine cavity. Identify and note complications of abortion. The course of the post-abortion period.

10. Past gynecological diseases (including treatment and outcome).

11. History of the development of the disease.

IV. **Objective examination.**

A. General examination.

1. Examination – height, weight, constitution, skin, lymph nodes, varicose veins, edema, etc., thyroid condition, character of hair distribution.

2. Examination of mammary glands and nipples (shape, consistency, soreness of the glands); pronounced or retracted nipple, the nature of mammary gland secretion (colostrum, milk, bloody fluid).

3. Respiratory organs.

4. Circulatory organs.

5. Stomach and digestive organs.

6. Urinary organs.

7. Nervous system and sensory organs.

B. Gynaecological examination.

1. Condition of external genital organs.

2. Examination of the cervix and vagina with mirrors.

3. Two-handed vaginal-abdominal (recto-abdominal) examination.

The condition of the vagina, cervix, uterine body, appendages, vaginal vaults, parametrium, and the nature of discharge are noted.

C. Special methods of gynaecological examination.

Colposcopy (simple, dilated), probing of the uterine cavity, test with bullet forceps, puncture of the abdominal cavity through the posterior vaginal arch, biopsy of the cervix, aspiration biopsy, separate diagnostic curettage, hysterosalpingography, hysteroscopy, diagnostic laparoscopy, chromosalpingoscopy, ultrasound (transabdominal, transvaginal), computed tomography, MRI.

D. Laboratory tests.

Blood tests, urine tests, bacterioscopic examination of the flora of the vagina, cervical canal and urethra; bacteriologic examination of cervical canal and abdominal cavity secretions, oncocytologic examination of material (ecto- and endocervix, uterine cavity aspirate, abdominal cavity flush), cytologic examination of ascitic fluid, ECG, histologic examination, results of urogenital infection examination (by PCR, ELISA), blood tests for β-hCG, hormonal status, oncomarkers, etc.

E. Conclusion of consultants (physician, neurologist, surgeon, urologist).

V. **Diagnosis.**

1. Diagnosis in full wording – the main (gynaecological; if several gynaecological diagnoses, then the diagnosis that caused hospitalization and inpatient treatment comes first) and comorbidities; justification of the diagnosis.

2. Differential diagnosis.

VI. **Etiology and pathogenesis.**

The etiology and pathogenesis of the given nosologic pathology in general and in relation to the supervised patient are stated.

VII. **Treatment and prophylaxis.**

The treatment and prophylaxis of the disease are outlined. The most rational therapy of the supervised patient is indicated.

VIII. **Diary.**

Daily detailed entries in the medical history according to the form adopted in the clinic with a detailed indication of all prescriptions – dietary, medications, etc.

IX. **Prognosis.**

Outline the prognosis with respect to:

a) life;

b) ability to work;

c) childbearing.

X. **Epicrisis** (discharge summary).

In the form of a brief summary – indicate the date of admission to the hospital, diagnosis on admission, clinical diagnosis, what treatment was given prior to curation. If there was a surgery – type, blood loss, complications, histologic result. Treatment at the time of curation. Final diagnosis (at discharge). If the patient is not discharged from the hospital, what treatment is planned.

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Y. E. Dobrokhotova
L. A. Ozolinya
A. Z. Khashukoeva
T. N. Savchenko
I. Y. Ilina
I. I. Grishin
S. B. Kerchelaeva
I. A. Lapina
I. V. Bakhareva
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L. A. Philatova
D. M. Kalimatova
L. V. Saprikina
E. G. Gavrilova

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info@phsreda.com
https://phsreda.com

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428023, Cheboksary, 75 Grazhdanskaya Street, office 12
info@maksimum21.ru
www.maksimum21.ru

Учебное издание

Ю. Э. Доброхотова
Л. А. Озолиня
А. З. Хашукоева
Т. Н. Савченко
И. Ю. Ильина
И. И. Гришин
С. Б. Керчелаева
И. А. Лапина
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М. Г. Венедиктова
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Е. Г. Гаврилова

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info@phsreda.com
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