LECTURE COMPLEX

Discipline:"Gynecology"
Discipline Code: Gyn 4305-2
The name of the EP: "General Medicine"
The volume of training hours / credits - 120 / (4)
Course and semester of study 4/8**Lecture volume** 1 hour **(50 minutes)**

Shymkent, 2025.

Considered at meetings of the Department of Obstetries and Gynecology

Protocol № 13 25.06. 2025 г.

Acting Associate Professor of the Department

of Obstetrics and Gynecology Tleuzhan R. T.

Lecture №1

1.Topic: Methods of examination of gynecological patients

2.Purpose: Formation of knowledge and skills on methods of examination of gynecological patients

3.Abstracts of lectures:
1.History of the disease
2.Examination of patients
3.Methods of hormonal research
4.Endoscopic methods
5.Ultrasound examination
6.Radiological research methods
7.Radionuclide research
8.Cytological examination
9.Cytogenetic study

Modern methods of objective examination of patients, allowing to obtain comprehensive information, do not reduce the high value of anamnestic data. Moreover, a thorough examination of the history, analysis and synthesis of available data are the basis for establishing a preliminary diagnosis, which is often confirmed by the results of subsequent objective methods of examination.

When analyzing complaints that caused the patient to see a doctor, you should consider the possibility of inconsistency with their true state of health. In addition to the main complaint, there are also related ones, which women report after additional leading questions. Important information can be obtained by the doctor, figuring out the lifestyle, diet, bad habits of the patient, the nature of work and living conditions.

When examining women pay attention to the length and weight of the body, physique, development of adipose tissue and its distribution. It is necessary to pay attention to the nature of hair, especially excess, the time of its appearance, the condition of the skin; it should be noted the presence of stretch marks on the skin, their color, number and location, the time of their appearance, especially in nulliparous women.

Examination and palpation of the mammary glands by a gynecologist is as necessary as examination of the cervix in mirrors during gynecological examination. It is necessary to pay attention to the structure of the mammary glands, their size.

Examination of the external and internal genitals provides significant information, especially in women with menstrual disorders and infertility.

Functional diagnostic tests are used to determine the functional state of the reproductive system. The calculation of the karyopycnotic index of the vaginal epithelium, the phenomenon of "pupil", the measurement of cervical mucus tension, the measurement of basal temperature are firmly in practice. A very accurate method of assessing ovarian function is histological examination of endometrial scraping.

In recent years, great progress has been made in the development and improvement of methods for the determination of protein and steroid hormones.

Endoscopic methods are widely used in gynecological practice. Colposcopy allows a detailed examination of the vaginal part of the cervix, vaginal walls and vulva. To detect intrauterine pathology, hysteroscopy is used, which is gas and liquid.

Since the 70s, laparoscopy began to be introduced into gynecological practice, with the help of which it is possible to differentiate inflammatory processes in the appendages, Appendix, to clarify the cause of an acute abdomen, to make a ligation of the fallopian tubes.

Ultrasound examination refers to non-invasive instrumental methods and can be performed in almost any patient regardless of her condition. In gynecological practice, ultrasound is used to diagnose diseases and tumors of the uterus appendages, identify abnormalities of the uterus. The safety of the method has made it one of the main in the control of the developing fetus.

X-ray research methods remain widely accepted research methods. Hysterosalpingography is used to establish the patency of the fallopian tubes, identify anatomical changes in the pelvic cavity, adhesions in the pelvic region. In gynecological practice, in the diagnosis of neuroendocrine diseases, x-ray examination of the skull is widely used. Computed tomography makes it possible to differentiate the image of individual tissues and organs among themselves by the density coefficient, even in cases where the density of tissues differs from each other by 1%. For the diagnosis of endometrial hyperplastic processes, radionuclide research is carried out, which gives an approximate idea of the degree of proliferation of endometrial cell elements and the location of the pathological process in its focal nature.

In dynamic monitoring of the effectiveness of hormonal therapy of endometrial hyperplastic processes, cytological examination of aspirate from the uterine cavity is used. The method can be used as a screening in preparation for the General medical examination of the female population.

Cytogenetic research is carried out by cytogenetics. Sexual chromatin determination plays an important role in the diagnosis of congenital defects of the genital glands; it can be performed in a modern laboratory. Karyotype determination is a prerequisite for examination of patients with gonadal dysgenesis.

4. Illustrative material: presentation, slide

5.Literature

Basic:

1. Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., rework and ball. - Moscow: GEOTAR-Media, 2012
2. Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., rework and ball. - M., 2011
3. Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.pererab and the ball.Two thousand thirteen

6.Control questions:

- Methods of examination of gynecological patients
-The history of the disease
- Menstrual, and reproductive functions
- Special methods of gynecological examination

Lecture №2

1.Topic: Uterine bleeding of reproductive age. Uterine bleeding in the premenopausal period.Spotting in postmenopausal women.

2.Purpose: Formation of knowledge and skills on uterine bleeding of reproductive age, uterine bleeding in the menopausal period, bloody discharge in postmenopause.

3.Abstracts of lectures:

1. Uterine bleeding of reproductive age
2. Uterine bleeding in the premenopausal period
3. Spotting in postmenopausal women

Dysfunctional uterine bleeding in reproductive age, as in puberty, are called acyclic uterine bleeding after a period of delayed menstruation from 1.5 to 6 months. In the reproductive age, VNK are less common than in puberty, since the reproductive system has completed development and the cyclic function of all its departments has formed and consolidated.The cause of violations of the cyclic function of the hypothalamic-pituitary-ovarian system, the end result of which is anovulation may be violations of hormonal hemostasis diseases of the endocrine glands, neuroendocrine diseases, emotional and mental stress, infection, intoxication, medication.

In women aged 45-55 years, uterine bleeding is the most common gynecological pathology and ranks first among the causes of hospitalization. Uterine bleeding in premenopausal age is traditionally called climacteric. This term emphasizes their connection with age-related changes in the reproductive system.If juvenile uterine bleeding is a consequence of unsteady cyclic function of the hypothalamic-pituitary – ovarian system, then climacteric bleeding is a consequence of involutional disorders.

In the postmenopausal period of a woman's life, bloody discharge from the genital tract should be considered as a terrible symptom of malignant neoplasm, so it is necessary to immediately and thoroughly examine the patient.The most common cause is bleeding from the vessels of the cervix or the body of the uterus eroded by cancer. Much less bleeding can be the consequence of hormonally active ovarian tumors-granulosa or granulosa-tackleton.

4. Illustrative material: presentation, slide

5.Literature

Basic:

1. Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., rework and ball. - Moscow: GEOTAR-Media, 2012
2. Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., rework and ball. - M., 2011
3. Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.pererab and the ball.Two thousand thirteen

6.Control question:

- Dysfunctional uterine bleeding
- Classification of dysfunctional uterine bleeding
- Uterine bleeding of reproductive age
- Uterine bleeding in the premenopausal period
- Spotting in postmenopausal women

Lecture№3

1.Topic: Neuro-endocrine syndrome. Postpartum obesity.Postpartum hypopituitarism.

2.Purpose: Formation of knowledge skills on neurotransmitter-endocrine syndromes, postpartum obesity, postpartum hypopituitarism.

3.Abstracts of lectures:
1.Neurotransmitter-endocrine syndromes
2.Postpartum obesity
3.Postpartum hypopituitarism

Neurotransmitter-endocrine syndromes are a partial cause of endocrine infertility and menstrual disorders. In 4-5% of women after an interrupted pregnancy and childbirth, obesity occurs with a violation of reproductive function. Violations of reproductive and destructive function in combination with vegetative-metabolic disorders, leading among which is a progressive increase in body weight, develop within 3-12 months after childbirth or interrupted pregnancy. The main clinical symptoms of postpartum neurotransmitter-endocrine syndrome are obesity, anovulatoryhypofunction of the ovaries, moderate hypertrichosis, tendency to hypertension, hyperglycemia.

Women with PNES have a distinctive family history: obesity, diabetes, diabetone condition, hypertension. It is characteristic that such women often had infectious diseases in puberty and post-puberty. The main anamnestic sign of PNES is rapid weight gain after an interrupted pregnancy or childbirth. Pregnancy and childbirth, as a rule, occur with the phenomena of toxicosis and other complications, and are the starting point for the development of obesity, cycle disorders, infertility and hypertrichosis.

Subsequent hypopituitarism or Sheehan Syndrome develops as a result of necrotic changes in the pituitary gland, arising on the background of spasm or intravascular coagulation of blood in the vessels of the anterior pituitary after bleeding or bacterial shock during childbirth or abortion. Predisposing moments for the development of Skien syndrome are repeated frequent childbirth (with an interval of up to 2 years).The severity of the clinical course of the disease depends on the degree of involvement of hypothalamic structures.

4.Illustrative material: the slides

5.Literature
Basic:
1. Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., rework and ball. - Moscow: GEOTAR-Media, 2012
2. Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., rework and ball. - M., 2011
3. Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.pererab and the ball.Two thousand thirteen

6.Control question:
- Neurotransmitter-endocrine syndromes
- Postpartum obesity
- Postpartum hypopituitarism

Lecture № 4

1.Topic: Inflammatory diseases of the female genital organs. Classification, etiopathogenesis.

2.Purpose: Formation of knowledge and skills on inflammatory diseases of female genital organs, classification, etiopathogenesis.

3.Abstracts of lectures:

1.Inflammatory diseases of the female genital organs

2. Classification, etiopathogenesis

Interest in the problem of inflammatory diseases of the genitals is associated with their frequency, the possibility of transmission of infection to the fetus, as well as "rejuvenation" of inflammatory diseases of the genitals. Patients with IDGO make up 60-65% of gynecological patients who applied to the polyclinic, and 30% among those sent to the hospital for treatment. IDGO often occur in an erased form, and patients do not always see a doctor or the disease is not accurately recognized. The increase in the number of women IS a consequence of increasing population migration, urbanization, changes in sexual behavior of young people, prostitution. Inflammatory process is the most frequent complication of artificial abortion. An important place among the causes of inflammatory complications is postpartum infection. An important role in the emergence of IDGO is played by the so-called normal microflora of the genital tract. The vaginal microflora is influenced by endogenous factors. Under the influence of estrogen, the formation of glycogen and mucin increases, vascularization of the vaginal wall increases, which stimulates the virulent properties of pathogenic microbes. Exogenous factors affecting the vaginal microflora are chemical, thermal effects when douching or treating the vaginal walls for contraceptive purposes.

Classification:

According to the etiological factor: Specific and nonspecific

By the nature of the course: acute, chronic and subacute

By localization: ID of lower and upper parts

4.Illustrative material: the slides

5.Literature

Basic:

1. Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., Rev. and extra - M. : GEOTAR - Media, 2012

2. Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., Rev. and extra - M. , 2011

3. Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.pererab and extra 2013

6.Control question:

- Inflammatory diseases of the female genital organs
- Classification, etiopathogenesis

Lecture № 5

1.Topic: "Acute abdomen" in gynecology. Etiopathogenesis, clinic.

2.Purpose: Formation of knowledge and skills on "Acute abdomen" in gynecology, etiopathogenesis, clinic.

3.Abstracts of lectures:
1. "Acute abdomen" in gynecology
2. Etiopathogenesis, clinic

The collective term "acute abdomen" refers to acute pathological processes in the abdominal cavity of different etiology and clinical course. Despite the various reasons, the symptoms of "acute abdomen" in gynecology has many common features: the sudden appearance of pain among the full health (patients can often call even the hour of the onset of the disease). Pain often begins in the lower abdomen, gradually increasing and spreading throughout the abdomen, can be so strong that they cause fainting; nausea, vomiting; violation of the discharge of intestinal gases and feces (children often have diarrhea); symptoms of irritation of the peritoneum.

The causes of "acute abdomen" in gynecology can be divided into 3 groups:

- acute intra-abdominal bleeding (disturbed ectopic pregnancy, ovarian apoplexy);
- violation of blood circulation in the internal genitals (torsion of the leg of tumors and tumor-like formations of the ovary, torsion and / or necrosis of the myomatous node);
- acute inflammatory diseases of the internal genitals involving the peritoneum.

All diseases with a picture of "acute abdomen" require immediate hospitalization of patients, correct and timely diagnosis and emergency care.

In the etiology of ectopic pregnancy, the primary role is played by inflammatory processes in the uterine appendages, which result in structural and functional disorders in the fallopian tubes. The frequency of inflammatory factor in ectopic pregnancy ranges from 14 to 92.5%. The most typical outcome of tubal pregnancy is its violation usually at 4-6 or 7-8 weeks. Chorion villi, penetrating into the wall of the fallopian tube, cause its destruction and melting, forming a layer of fibrinous necrosis, which contributes to the thinning and stretching of the wall, followed by the opening of the walls of blood vessels and the destruction of nerve fibers.

The most frequent violation of tubal pregnancy-tubal abortion(51%), termination of pregnancy by type of rupture of the fallopian tube is noted in 31% of cases. A rather rare outcome of tubal pregnancy of any localization is early death and resorption of the embryo with the formation of hemato - or hydrosalpinx. In complete tubal abortion, when the fetal egg is expelled entirely into the abdominal cavity, it usually dies, and then can undergo calcification and mummification. Bleeding from the pipe, which occurs in this case, can rarely stop on its own.

Violation of ectopic pregnancy by type of tubal abortion has a different clinical picture: some patients show signs of acute internal bleeding, and others have symptoms so poor that it is difficult to detect the disease. Patients do not always note menstruation delay, pain and blood discharge from the genital tract. Subjective signs of pregnancy may also be absent, and breast swelling and discharge from the nipples may be due to other pathological conditions. This pregnancy is mostly asymptomatic.

Rupture of the fallopian tube usually occurs acutely, with severe clinical picture, due to acute bleeding in the abdominal cavity: sharp anemisation and a decrease in blood pressure, dizziness,

fainting, peritoneal shock, pain attack caused by pipe rupture and irritation of peritoneum by blood (pain, irradiiruet in the upper quadrant, interscapular area, collarbone - "frenikus-symptom"). In 11% of patients, massive blood loss and hemorrhagic shock are observed when the fallopian tube ruptures.

Progressive tubal pregnancy is recognized at an early stage is extremely rare, its clinical symptoms are poor, since the body changes occur, characteristic of uterine pregnancy of early terms. There are presumptive (nausea, vomiting, changes in olfactory sensations, drowsiness, weakness) or probable (breast swelling, cyanotic vaginal mucosa and vaginal part of the cervix, a slight increase in the uterus and softening its consistency, positive tests for trophoblast hormones) signs. There may be no delay in menstruation, menstruation may occur on time, but it manifests itself unusually (in the form of scanty blood secretions).

Ovarian apoplexy (apoplexiaovarii) is defined as a sudden hemorrhage in the ovary when the vessels of the graph vesicle, ovarian stroma, follicular cyst or corpus luteum cyst rupture, accompanied by a violation of the integrity of its tissue and bleeding into the abdominal cavity.Ovarian apoplexy occurs at the age of 14 to 45 years, more often in 20-35 years. However, there have been cases of ovarian hemorrhage in young girls. The frequency of ovarian apoplexy among gynecological pathology is 1-3 %. Relapse of the disease reaches 42-69%.

Apoplexy has a complex pathogenesis due to physiological cyclic changes in the blood supply of the pelvic organs. Most researchers highlight "critical moments" for ovarian damage. Thus, in 90-94% of patients, ovarian apoplexy occurs in the middle and in the second phase of the menstrual cycle. This is due to the characteristics of ovarian tissue, in particular with increased vascular permeability and increased blood supply during ovulation and before menstruation.Apoplexy of the right ovary occurs 2-4 times more often than the left, which is explained by the more abundant blood circulation of the right ovary, since the right ovarian artery departs directly from the aorta, and the left-from the renal artery.

To rupture of the ovary predispose inflammatory processes of the pelvic organs, leading to sclerotic changes in the ovarian tissue (sclerosis of the stroma, fibrosis of epithelial elements, perioophorites), and in its vessels (sclerosis, hyalinosis), as well as congestive hyperemia and varicose ovarian veins. Bleeding from the ovary can contribute to blood diseases and long-term use of anticoagulants, leading to a violation of the blood coagulation system. These conditions create a background for exogenous and endogenous factors leading to ovarian apoplexy. Among the exogenous causes are abdominal trauma, physical stress, rough or interrupted sexual intercourse, horseback riding, douching, vaginal examination, etc. Endogenous causes may be the wrong position of the uterus, mechanical compression of blood vessels, disrupting blood flow in the ovary, pressure on the ovary tumor, adhesions in the pelvis, etc. in a number of patients, ovarian rupture occurs without no apparent reason at rest or during sleep.The leading role in the pathogenesis of ovarian apoplexy is currently assigned to disorders of hormonal status. One of the main causes of ovarian rupture is considered to be an excessive increase in the number and change in the ratio of pituitary gonadotropins (FSH, L G, prolactin), which contributes to hyperemia of ovarian tissue.An important role in the occurrence of ovarian apoplexy belongs to dysfunction of the higher parts of the nervous system, recorded in EEG and REG. As a result of stressful situations, psycho-emotional lability, environmental factors, living conditions.

The main clinical symptom of ovarian apoplexy is sudden pain in the lower abdomen. Pain is associated with irritation of the receptor field of ovarian tissue and the impact on the peritoneum of the spilled blood, as well as with spasm in the pool of the ovarian artery.Weakness, dizziness, nausea, vomiting, fainting are associated with intra-abdominal blood loss.

Painful form of ovarian apoplexy is observed when bleeding into the tissue of the follicle or corpus luteum without bleeding into the abdominal cavity. The disease manifests an attack of pain in the lower abdomen without irradiation, sometimes with nausea and vomiting. There are no signs of intra-abdominal bleeding.

The clinical picture of pain and mild hemorrhagic form of ovarian apoplexy is similar.

When viewed, the skin and visible mucous membranes of the usual color. Pulse and blood pressure within normal limits. The language is clean, damp. The abdomen is soft, although there may be a slight tension of the muscles of the anterior abdominal wall in the lower parts. Palpation marked tenderness in the iliac region, often on the right, there are no peritoneal symptoms. Percussion free fluid in the abdominal cavity is not defined. During gynecological examination, the uterus is of normal size, the ovary is somewhat enlarged and painful. The arches of the vagina are deep, free. Ultrasound of the pelvic organs almost never allows you to visualize directly the rupture of the ovary, but you can detect the accumulation of fluid in the post-uterine (Douglas) space. In the painful form of ovarian apoplexy, there is a small amount of fluid in the Douglas space, it is hypoechoic with a fine suspension (follicular fluid with blood admixture). In the clinical blood test, there are no pronounced changes, sometimes moderate leukocytosis is detected without shifting the formula to the left.

In the clinical picture of medium and severe hemorrhagic (anaemic) forms of ovarian apoplexy, the main symptoms are associated with intra-abdominal bleeding. The disease begins acutely, often associated with external causes (sexual intercourse, physical stress, trauma, etc.). Pain in the lower abdomen often radiates into the anus, leg, sacrum, external genitals, accompanied by weakness, dizziness, nausea, vomiting, fainting. The severity of symptoms depends on the magnitude of intra-abdominal blood loss.

Twist legs tumors of the uterus appendages

In 15-25% of cases, there is a twist of the leg of the ovarian tumor, but it is possible to twist the leg of any tumor (for example, the subserous node), the fallopian tube, the unchanged ovary and even the entire uterus or its appendages. The torsion exposed mobile Matureteratoma, as well as paraovarian cysts, dense fibroma of the ovary.

Distinguish between the anatomical and surgical pedicle of ovarian tumor. The anatomical leg of the tumor (cyst) of the ovary consists of stretched funnel and its own ligaments of the ovary and its mesentery. In the leg are the vessels that feed the tumor and ovarian tissue (ovarian artery, branch of the ascending part of the uterine artery), lymphatic vessels and nerves. The surgical leg, formed as a result of torsion, in addition to anatomical, includes a stretched fallopian tube.

The causes of torsion of the leg of tumors are not always clear. It is believed that the sudden stop of the rotational movement of the trunk (gymnastic exercises, dances), physical activity, a sharp change in intra-abdominal pressure are important for the occurrence of torsion. In these cases, the rotation of the tumor around the leg continues by inertia, which leads to torsion. Twisting legs contribute to the asymmetric shape, uneven density of the tumor.At the moment of torsion, the branches of the uterine artery feeding the ovary and the ovarian artery, together with their accompanying veins, bend. In the tumor, blood circulation is disrupted, then necrosis and aseptic inflammation occur, spreading to the peritoneum of the pelvis. The twist can be complete (more than 360°) and partial (less than 360°). With partial torsion of the leg of the tumor, the venous outflow is disturbed first of all with a relatively preserved arterial blood supply. All phenomena are not very pronounced and can disappear even without treatment. Secondary changes in the tumor (necrosis, hemorrhage) are detected in such patients during surgery.

Clinic. The clinical picture of the disease is determined by the violation of the tumor nutrition. When bistronomique leg tumor clinic so characteristic that allows you to immediately establish the

correct diagnosis. The disease begins suddenly with the appearance of sharp pain in the lower abdomen on the affected side, nausea, vomiting, stools and gas retention (intestinal paresis). With slow-onset symptoms of the disease are less pronounced, may periodically increase or disappear.

Necrosis of myomatous node

Uterine fibroids - the most common benign tumor of the internal genitals. Necrosis of myomatous nodes occurs in about 7% of patients with uterine myoma, often during pregnancy, in the postpartum or post-abortion period.

Necrosis of the myomatous node can be associated with either torsion of its leg in subserous localization, or with insufficient vascularization. During pregnancy, the prerequisites for necrosis of myomatous nodes are created: a decrease in blood flow in the myometrium with an increase in vascular tone and a violation of venous outflow. Should also take into account the rapid increase in myomatous nodes in parallel with the growth of the pregnant uterus. Necrosis is accompanied by the development of edema, hemorrhages, aseptic inflammation in the node. With the progression of the disease, peritonitis can develop.

When twisting the legs of the myomatous node, the disease develops acutely - there are cramping pains in the lower abdomen, nausea, vomiting, chills, dry mouth, intestinal function is disturbed. With insufficient blood supply (malnutrition) of the myomatous node, the clinical picture is more blurred, symptoms appear gradually. The patient is concerned about pulling pains in the lower abdomen and lower back, they periodically intensify, weaken or disappear. At the time of the attack of pain, there may also be nausea, chills, fever, usually to subfebrile values, tachycardia.

4.Illustrative material: the slides

5.Literature

Basic:

1.Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., Rev. and extra - M. : GEOTAR - Media, 2012

2.Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., Rev. and extra - M. , 2011

3.Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.pereraband extra 2013

6.Control question:

- "Acute abdomen" in gynecology
- Etiopathogenesis, clinic

Lecture №6

1.Topic: Endometriosis. Etiopathogenesis, classification.

2.Purpose: Formation of knowledge and skills on endometriosis, etiopathogenesis, classification.

3.Abstracts of lectures:

1. Endometriosis
2. Etiopathogenesis, classification

Endometriosis (endometrioid disease) is a dishormonal, immune - dependent and genetically determined disease with a benign growth of tissue similar in morphological structure and function to the endometrium, but located outside the uterine cavity. Endometriosis is one of the most common diseases of the reproductive system in women 20-40 years, its frequency, its detection ranges from 7 to 50%. Endometriosis occurs in 6-44% of women who suffer from infertility and have undergone laparoscopy and laparotomy. The main part is genital endometriosis (92-94%), much less common extragenital endometriosis (6-8%). However, regardless of the localization, endometriosis is not local, but a common disease with certain neuroendocrine disorders.

There are three concepts of the biological essence of endometriosis. Some authors consider it to be a true neoplasm, others-a borderline disease between hyperplasia and tumor, and others-a tumor-like dishormonal proliferate capable of malignancy.Endometriosis can grow into any tissue or organ: the wall of the intestine, bladder, ureter, peritoneum, skin, can metastasize lymphogenically or hematogenically. Its foci are found in lymph nodes or such remote areas of the body as the face, eyes, subcutaneous tissue of the anterior abdominal wall, etc.

The etiology has not been established and remains a matter of dispute. Numerous hypotheses of endometriosis have been proposed, but none of them has become conclusively proven and generally accepted.

Endometrial origin of endometriosis. This theory considers the possibility of the development of endometrioid heterotopias from endometrial elements displaced in the thickness of the uterine wall or transferred retrograde with menstrual secretions into the abdominal cavity and spread to various organs and tissues.

It is proved that intrauterine medical manipulations (abortions, diagnostic scraping of the uterine mucosa, manual examination of the uterine cavity after childbirth, caesarean section, enucleation of myomatous nodes, etc.) contribute to the direct germination of the endometrium into the uterine wall, leading to the development of internal endometriosis of the uterine body.

In addition to the direct ingrowth of the endometrium into the thickness of the myometrium, at the time of gynecological operations, elements of the uterine mucosa can get into the blood and lymph flow and spread to other organs and tissues.Embryonic and dysontogenetic theories consider the development of endometriosis from displaced areas of the embryonic material, from which the female genitals and, in particular, the endometrium are formed during embryogenesis.Detection of clinically active endometriosis at a young age and frequent combination of endometriosis with genital abnormalities, organs of the urinary system and gastrointestinal tract confirm the validity of the embryonic or dysontogenetic concept of the origin of endometriosis.

Metaplastic concept. According to this hypothesis, endometriosis develops as a result of metaplasia of the embryonic peritoneum or coelomic epithelium. It is possible to transform the endothelium of lymphatic vessels, mesothelium of the peritoneum and pleura, epithelium of renal tubules and other tissues into endometrioid tissue. Such transformations can be potentiated by hormonal disorders, chronic inflammation or mechanical trauma. Metaplastic theory can explain

cases of endometriosis in men, the detection of extragenital foci of endometriosis, and the occurrence of endometriosis in girls before menarche.

Of the many factors that contribute to the development and spread of endometriosis, it is necessary to distinguish hormonal disorders and dysfunction of the immune system.Changes in the neuroendocrine link of the reproductive system in patients with endometriosis allow us to consider this disease hormone-dependent. Endometriosis rarely occurs before menarche and rarely occurs after menopause. Endometriosis stabilizes or regresses during physiological pregnancy or artificial hormonal amenorrhea.

Hormones have a significant effect on endometrioid implants, as heterotopic endometrium, as well as normal, contains estrogen, androgenic and progesterone receptors. Estrogens stimulate the growth of the endometrium, their excess leads to endometrial hyperplasia. The excretion of estrogens in patients with endometriosis has no classical cyclicity, it is erratic and forms a hyperestrogenic background. When studying the excretion of estradiol, estrone and estriol, high levels of estrone were found. Estrone, being a weak estrogen in patients with endometriosis, is converted with increased enzymatic activity of 17-p-hydroxysteroid dehydrogenase into a powerful estrogen, namely 17-p-estradiol. Androgens leads to atrophy of the endometrium. Progesterone supports the growth and secretory changes of the endometrium, exogenously administered progesterone analogues lead to the development of a decidual reaction in endometrial tissues at an adequate concentration of estrogen. 25-40% of patients with endometriosis have a normal two-phase menstrual cycle. In these patients, the mechanism of cytoplasmic binding of progesterone is disrupted, which leads to a perversion of the biological action of hormones. In patients with classic manifestations of severe disease, the level of progesterone-binding receptors in the foci of endometriosis is 9 times lower than normal.

An important role in the pathogenesis of endometriosis belongs to autoimmune reactions. In disorders of hormonal status, dysfunction of the immune system is expressed in T-cell immunodeficiency, inhibition of the function of T-suppressors, activation of delayed-type hypersensitivity.

Classification of endometrioid lesions. There are genital (localization of the pathological process in the internal and external genitals) and extragenital (development of endometrioid transplants in other organs and systems of the woman's body) endometriosis. In turn genital endometriosisdepo on the inside (the uterine body, isthmus, interstitial divisions of the fallopian tubes) and external (vulva, vagina and vaginal portion of the cervix, retrocervical region, ovaries, fallopian tubes, the peritoneum lining the pelvic organs).

Classification of adenomyosis

Stage I-defect of the mucous membrane to the myometrium.

Stage II-defect to the middle of the thickness of the myometrium.

Stage III - the defect of the endometrium to serous cover.

Stage IV-lesion of the parietal peritoneum.

4.Illustrative material: the slides

5.Literature

Basic:

1.Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., Rev. and extra - M. : GEOTAR - Media, 2012

2.Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., Rev. and extra - M. , 2011

3.Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.pereraband extra 2013
4.Gynecology: textbook / L. N. Vasilevskaya [et al.]. - Rostov n / A: Phoenix, 2009

6.Control question:
- Endometriosis
- Etiopathogenesis, classification

Lecture №7

1.Topic: Violations of sexual development

2.Purpose: Formation of knowledge and skills on violations of sexual development

3.Abstracts of lectures:

1. Disorders of sexual development
2. Classification
3. Clinic

Violations of puberty in girls are 3-4%. A significant role in the development of the disease is played by hereditary predisposition, as well as adverse factors (radiation, hypoxia, viral infections, some drugs). Anomalies of the sexual system are more common in children born from alcoholism, drug addiction, endocrine diseases, as well as from elderly parents.

Sexual development is a genetically programmed process that begins at the age of 7-8 and ends by the age of 17-18. The appearance of secondary sexual characteristics and menstrual-like secretions before 7 years should be regarded as premature sexual development (PPR). Underdevelopment or lack of secondary sexual characteristics up to 15-16 years refers to the delay of sexual development.

Premature sexual development can be isosexual, i.e. on the female type, and heterosexual - on the male type.

PSD of isosexual type has cerebral (true PSD) (can be complete and incomplete), have constitutional and ovarian forms (false PSD).

The cerebral form is considered true PSD because the pathological process involves the pituitary-stimulating zones of the hypothalamus, where premature secretion of RGLG leads to the production of gonadotropins in the pituitary gland, which, in turn, stimulates the secretion of estrogen in the ovaries.

True PSD in girls is functional or organic. The causes of organic lesions are fetal hypotrophy, asphyxia and birth trauma, meningitis, encephalitis and other neuroinfections. Less common are brain tumors-ganglioneuromas, hamartomas, astrocytomas.

True PSD includes the rare mccune-Albright-braitsev syndrome, which includes not only PPR, but also fibrous dysplasia of tubular bones in combination with asymmetric pigmentation of the skin. The causes of bone pathology are not entirely clear.

The constitutional form of PSD is hereditary, family character.

Ovarian form of PSD is more often observed in hormone-producing ovarian tumors: granulocellular, thecellular tumors, teratoblastoma with elements of hormone-active tissue. The cause of ovarian PSD Genesis can also be follicular cysts, usually small (3-4 cm). Hypothalamic-pituitary structures remain immature. The secretion of estrogen by the tumor is autonomous.

Clinic. Cerebral PSD manifests itself in the form of incomplete (thelarche and/or adrenarche) and complete the form. The incomplete form of PSD is considered to be the stretched first phase of puberty. Age of menarche in these girls 10-11 years. Under full form there is secondary gender signs of and menstruation. The development of secondary sexual characteristics in the full form of true PSD significantly outstrips that of timely puberty, although the sequence of their appearance is not disturbed. Bone age is significantly ahead of passport, growth does not exceed 150-152 cm.

In mccune-Albright-braitsev syndrome, PSD can manifest as either incomplete or complete. In girls with incomplete form, physical development is accelerated. The growth rates of tubular

bones and the rate of ossification of their epiphyses coincide, so they do not differ in physique and growth from healthy ones. Under full form sexual development substantially accelerated.

The constitutional form of PSD is not accompanied by any cerebral or neurological pathology. The sequence of secondary sexual characteristics is not disturbed, and the duration of puberty is similar to physiological. What matters is the age of occurrence of menarche (8-9 years).

In PSD of ovarian Genesis, due to hormone-producing tumor, neurological symptoms are absent, secondary sexual characteristics are developed slightly. The sequence of appearance of signs of puberty is perverted:acyclic menstrual-like secretions appear first. Somatic development is not accelerated. Clinical manifestations of PSD in follicular cysts are scanty sukrovichnyh secretions from the genital tract and a slight increase in the mammary glands. In follicular cysts, the symptoms of PSD are transient and undergo reverse development as the follicular cyst regresses.

4.Illustrative material: the slides

5.Literature

1.Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., Rev. and extra - M. : GEOTAR - Media, 2012

2.Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., Rev. and extra - M. , 2011

3.Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.The extra pererab 2013

6.Control questions:

- Disorders of sexual development
- Classification
- Clinic

Lecture № 8

1.Topic: Hyperplastic and dystrophic processes of the genitals. Diseases of the body of the uterus.

2.Purpose: Formation of knowledge and skills on hyperplastic and dystrophic processes of the genitals, diseases of the uterine body.

3.Abstracts of lectures:

1. Hyperplastic processes of the genitals
2. Degenerative processes of the genital organs
3. Diseases of the uterine body

Hyperplastic processes in the endometrium have an unequal degree of development and sometimes acquire the character of precancerous disease.

Classification:

1) glandular hyperplasia of the endometrium
2) glandular cystic hyperplasia
3) atypical endometrial hyperplasia
4) endometrial polyps

Glandular and glandular-cystic hyperplasia is essentially a qualitatively unambiguous process, expressed in varying degrees. The difference is in the presence of cystic enlarged glands in the glandular-cystic form of pathology and the absence of cysts in simple glandular hyperplasia. A rare variant of glandular-cystic hyperplasia is stromal hyperplasia, which is characterized by large, sometimes polymorphic nuclei of stroma cells. In the basal form of hyperplasia, the basal layer of the mucous membrane thickens due to the proliferation of glands located in the compact layer of the endometrium. Atypical hyperplasia is characterized by structural rearrangement and more intensive proliferation of the glands compared with other types of hyperplasia. Endometrial polyps are focal endometrial hyperplasia; they often arise from the hyperplastic basal layer of the endometrium. There are the following forms of endometrial polyps: 1) glandular, originating from the basal layer; 2) glandular-fibrous polyps, consisting of a connective tissue stroma and a limited number of glands; 3) fibrous polyps-connective tissue formations, which are often collageniziririrovany; glands are very few or absent. In women of reproductive age, polyps usually have a glandular structure.

Dysplasia is a morphological term that refers to changes in the epithelium of the cervix and vagina of different Genesis and biological potency. The basis of dysplasia are rearrangements of basal and parabasal cells of the flat multilayer flat epithelium. Dysplasia develops on the background of immature metaplasia of the multilayer squamous epithelium. Depending on the degree of intensity of proliferation, the presence of atypia and localization of the process in different layers of the epithelium, there are mild, moderate and severe dysplasia.

4.Illustrative material: the slides

5.Literature

Basic:

1.Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., Rev. and extra - M. : GEOTAR - Media, 2012

2.Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., Rev. and extra - M. , 2011

3.Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.pererab and extra 2013

6.Control question:

- Hyperplastic processes of the genitals
- Dystrophic processes of the genitals
- Diseases of the uterine body

Lecture №9

1.Subject: Sterile marriage. Female infertility.

2.Purpose: Formation of knowledge and skills on infertile marriage, female infertility.

3.Abstracts of lectures:
1. Sterile marriage,
2. Female infertility.
3. Assisted reproductive technology

Infertile marriage - the absence of pregnancy in a woman of childbearing age for 1 year of regular sexual life without the use of any contraceptives. The frequency of infertile marriage, according to various data, ranges from 10 to 20%.

The cause of infertility can be violations in the sexual system in one or both spouses. Infertility in 45% of cases is associated with violations in the sexual sphere in women, in 40% - in men, in other cases, infertility is caused by violations in both spouses.In women, there are primary and secondary infertility in the absence of pregnancy in the history and in the presence of it in the past, as well as relative infertility, when the probability of pregnancy remains, and absolute infertility, when the possibility of becoming pregnant naturally is completely excluded (in the absence of the uterus, fallopian tubes, ovaries, as well as

Female infertility is a woman's inability to conceive at reproductive age. There are primary, secondary and absolute female infertility. Absolute female infertility means that the possibility of pregnancy is completely excluded.

It is customary to distinguish three main groups of causes of female infertility:

1) Disorder of ovulation 35-40%
2) Pipe factors-20-30%
3) Various gynecological diseases-15-25%.

4.Illustrative material: the slides

5.Literature
Basic:

1.Gynecology: textbook / edited by G. M. Savelyeva. V. G. Breusenko . - 4th ed., Rev. and extra - M. : GEOTAR - Media, 2012

2.Gynecology: studies. / edited by G. M. Savelyeva, V. G. Breusenko. - 4th ed., Rev. and extra - M. , 2011

3.Gynecology.Guide to practical classes: textbook / ed. V. E. Radzinsky 3rd ed.pereraband extra 2013

6.Control question:
1. Sterile marriage, definition.
2. Female infertility: etiology.
3. Classification of female infertility.
4. Methods of diagnosis of female infertility.
5. Algorithm of treatment of infertility.
6. Assistedreproductivetechnology