MINISTRY OF HEALTH OF UKRAINE
ODESA NATIONAL MEDICAL UNIVERSITY
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

CONFIRMED by
Vice-rector for scientific and pedagogical work
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THE METHODICAL RECOMMENDATIONS FOR PRACTICAL CLASS

International Faculty, Course VI

Discipline “Obstetrics and Gynecology”

Practical lesson №25. Topic: Female urogynecological inflammatory diseases.

Approved:

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

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Practical lesson № 25.

FEMALE UROGYNECOLOGICAL INFLAMMATORY DISEASES.

LEARNING OBJECTIVE is to acquaint the students with the issues of clinics, diagnostics and treatment of inflammatory diseases of female genital organs.

BASIC CONCEPTS:

Anatomy of female genital tract.

The signs of inflammation.

Bacteriological investigation.

Definition, etiology, and frequency of inflammatory diseases.

Diagnostics of inflammatory diseases.

Differential diagnosis

Treatment of inflammatory diseases.

EQUIPMENT

– Multimedia equipment (computer, projector, screen), TV.

– Obstetric models and obstetric instruments (pelvimeter, obstetric stethoscope, centimeter tape).

– Professional algorithms, structural-logical schemes, tables, videos.

– Results of laboratory and instrumental researches, situational tasks, patients, medical histories.

EDUCATIONAL TIME – 4 h

A. ORGANIZATIONAL STAGE

– Greetings,

– checking attendees,

– defining of educational goals,

– providing of positive motivation.

The rate of inflammatory diseases is over 60% of all gynecologic diseases and about 30% patients of female hospitals have the inflammatory processes of genital organs. Especially the quantity of the inflammatory diseases has enlarged because of the increased sexual activity at the young age, permissive sexual attitude, prostitution. Those at the highest risk are young unmarried women with multiple sex partners.

Primarily inflammatory diseases affect human fertility because of infections of the female upper genital tract and their sequel. Women with persistent virus infection are at particular risk for cervical dysplasia and intrauterine fetal death.

B. CONTROL OF BASIC KNOWLEDGE (written work, written testing, online testing, face-to-face interview, etc.)

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

Knowledge requirements:

– Communication and clinical examination skills.

– Ability to determine the list of required clinical, laboratory and instrumental studies and evaluate their results.

– Ability to make a preliminary and clinical diagnosis of the disease

– Ability to perform medical manipulations

– Ability to determine the tactics of physiological pregnancy, physiological labor and the postpartum period.

– Ability to keep medical records.

List of didactic units:

1. Inflammation of the external genital organs:

• Vulva - vulvitis

• Genital warts (warty skin formation of viral etiology)

• Bartholin's gland - bartholinitis;

2. Inflammation of the internal genital organs:

• Vagina - colpitis, vaginitis;

• Cervix - endocervicitis (inflammation of the vaginal cervix covered with stratified squamous epithelium);

• endocervicitis (inflammation of the mucous membrane, facing into the cervical canal and covered with columnar epithelium);

• Cervicosis (the defeat of all layers of the cervix);

• Erosion (pseudo - ectopia of columnar epithelium to a multilayered, this erosion - multilayered epithelial defect, existence of erosion is supported by the lack of hormonal function of the ovaries);

• The body of the uterus - endometritis (inflammation of the mucous membrane of the uterus);

• Metroendometrit (inflammation of the mucous and muscular layer of the uterus)

• Panmetrit (inflammation of all layers of the uterus);

• perimetry (inflammation of the peritoneum, which covers the body of the uterus);

• The appendages of the uterus - salpingitis (inflammation of the fallopian tubes);

• oophoritis (ovarian inflammation);

• salpingoophoritis (inflammation of the fallopian tubes and ovaries), or adnexitis;

• Adnextumor (inflammatory swelling of the fallopian tubes and ovaries);

• hydrosalpincs (inflammatory swelling of the fallopian tube with the accumulation of serous fluid in the lumen);

• Piosalpinks (inflammatory saccular tumor of the uterine tube to the accumulation of pus in the lumen);

• Piovarum (inflammatory tumor of the ovary with purulent fusion of its fabric);

• Perisalpingitis (inflammation of the peritoneal cover of the fallopian tube);

• Fiber pelvis - parameters (inflammation of the tissue that surrounds the uterus) - side, front and rear;

• pelvic peritoneum - pelvioperitonitis (inflammation of the pelvic peritoneum);

• The overall peritonitis (diffuse or diffused)

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

Questions:

Which areas of the upper genital tract may become infected in pelvic inflammatory disease ?

Women with PID who are treated with long-term aromatase inhibitor therapy are recommended to undergo bone mineral density screening?

Test tasks

Direction: For each of the multiple-choice questions select the lettered answer that is the one best response in each case.

Urogenital candidiasis in this case is confirmed by the following data:

- complaints of discomfort, itching, itching of the external genitalia.
- examination in mirrors: severe redness and swelling of the mucous membrane of the vagina and cervix. In the posterior vault of the vagina there are secretions of syrupy, milky white. The same discharge is present in the external pharynx of the cervix and urethra.
- microbiological examination: the analysis of the microflora of the vagina, cervical canal and urethra revealed many leukocytes, mixed microflora and a fungus of the genus Candida.

Treatment: the main place in the pharmacotherapy of urogenital candidiasis belongs to antifungal drugs, which must be prescribed taking into account the identified type of candidiasis and data on sensitivity to essential drugs. Treatment should be carried out with antifungal drugs of both general and local action (fluconazole, clotrimazole, nystatin)

6.3.Control materials for the final stage of the lesson:

1. A 30-year-old patient was hospitalized in the gynecological department with complaints of pain in the lower abdomen, radiating to the lower back, fever up to 37.30C. Objectively: the cervix is cylindrical, the pharynx is closed. The body of the uterus is normal, painless, mobile. The appendages are slightly enlarged, limited in mobility, painful. The vaults are free. Highlights - white. What is the most likely diagnosis?

A. Ovarian cyst.

B. Endometritis.

+ C. Chronic salpingo-oophoritis in the acute stage.

D. Polycystic ovary disease.

E. Pelvioperitonitis.

2. A 17-year-old woman complained of fever up to 38 degrees, pain in the lower abdomen. Complaints appeared 3 days after the next menstruation, which began on time. The abdomen is soft, painful in the lower parts. At bimanual research the uterus without features, appendages are slightly increased, pasty, limited mobility, painful at a palpation, excursions of a neck of uterus are painful. Your diagnosis?

A. Ovarian cystoma.

+ B. Acute salpingo-oophoritis.

C. Ovarian cancer.

D. Endometritis.

E. Endometriosis.

3. A 32-year-old woman complained of pain in the lower abdomen, fever, chills, profuse discharge from the genital tract. A medical abortion was performed 4 days ago. On examination, the abdomen is soft, painful on palpation in the lower parts, the symptoms of peritoneal irritation are negative. The uterus is slightly enlarged, painful on palpation, inhomogeneous consistency. Appendages without features, discharge from the genital tract serous-purulent. Probable diagnosis:

A. Acute salpingo-oophoritis.

+ B. Acute endometritis.

C. Endometriosis.

D. Bacterial vaginosis.

E. Urogenital candidiasis.

4. A 26-year-old woman went to a women's clinic with complaints of mucopurulent discharge from the genital tract, dull intermittent pain in the lower abdomen, accelerated, painful urination. Examination of the cervix in the mirrors reveals hyperemia around the external pharynx, mucosal edema, as well as abundant mucopurulent discharge. Previous diagnosis:

A. Cervical erosion.

B. Colpit.

S. Cervicitis.

+ D. Endocervicitis.

E. Endometritis.

5. A 33-year-old patient was admitted to the gynecological hospital with complaints of sharp pain in the lower abdomen, fever up to 380C, vaginal discharge of a purulent nature. There were no births or abortions. Sex life is chaotic. At bimanual research the cervix of a conical form, a throat is closed. The uterus is not enlarged, painful on palpation. The appendages are enlarged, painful on both sides. The vaults of the vagina are painless. Vaginal discharge is abundant, purulent. To establish the diagnosis it is shown:

+ A. Bacteriological examination of secretions from the genital tract.

B. Colposcopy.

C. Probing the uterus.

D. Scraping of the uterine mucosa.

E. Puncture of the abdominal cavity through the posterior vault of the vagina.

6. A 46-year-old patient was taken to the hospital with complaints of intense lower abdominal pain, nausea, vomiting, body temperature of 39.5 ° C. Has been using the IUD for contraception for the past 12 years. Condition of moderate severity, pulse 120 per 1 min, blood pressure 120/80 mm Hg. Art. The tongue is dry, covered with white plaque. The abdomen is swollen, sharply painful in all departments, the symptom of Shchitkin-Blumberg is sharply positive. At bimanual research in a small pelvis the sharply painful, motionless conglomerate in the sizes of 12-14-I8 cm is palpated; the posterior vault of the vagina overhangs, sharply painful. Which diagnosis is most likely?

A. Endometritis on the background of the use of the IUD; suppuration of ovarian cysts.

B. Endometritis on the background of IUD use, acute bilateral salpingitis; pelvioperitonitis.

+ C. Endometritis on the background of the use of the IUD; perforation of tuboovarian abscess; diffuse peritonitis.

D. Uterine fibroids with necrosis of one of the nodes; acute purulent salpingitis; diffuse peritonitis.

C. E. Ovarian cancer stage IV.

FORMATION OF PROFESSIONAL SKILLS (mastering skills, conducting curation, determining the treatment regimen, conducting a laboratory study, etc.).

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

Interactive task:

Students of the group are divided into 3 subgroups of 3-4 people each. They work in the classroom, reception department of the maternity or gynecological hospital, surgery room.

Tasks:

– Subgroup I - Gather special gynecologic anamnesis. Prepare a plan of inspection sick with various kinds of gynecological diseases. Make the plan of

preoperative preparation at planned and urgent gynecologic operations. Management of the postoperative period.

– Subgroup II - Perform gynecological examination- Taking material from the vagina, cervical canal and urethra for examination.- Evaluate: the results of urogenital smear microscopy, cytological examination, colposcopy; results of bacteriological and other methods; results of ultrasound examination; results of functional tests

– Subgroup III – to assess answers of subgroups I and II and makes adjustments.

Tests:

Direction: For each of the multiple- choice questions select the lettered answer that is the one best response in each case.

1. For the clinical manifestations of dysmenorrhea are not typical:

A. Headache

B. Nausea

C. Excessive blood loss

D. Abdominal pain

E. Irritability

2. An 18-year-old girl with normal development of secondary sexual signs complains of primary amenorrhea. Examination revealed that the vagina is underdeveloped, the uterus is absent. Specify the type of amenorrhea:

A. Physiological amenorrhea.

B. Amenorrhea, caused by hyperandrogenia.

C. Hypogonadotric amenorrhea

D. Eugonadotropic amenorrhea.

3. A 24 year old patient complains of amenorrhea. She had labor 13 months ago. Delivery was by caesarian section due to premature detachment of a normally located placenta and intrauterine asphyxia of the fetus. Labor was complicated with a massive blood loss of approximately 2000 ml due to coagulopathy. What test is indicated in this patient?

A. Ultrasound of the organs of the small pelvis

B. Testosterone blood test

C. Progesterone test

D. Gonadotropins test

E. Computer tomography of the head

4. A 20 year old patient complains of periodic menstruation delays for 2-4 months during the last 2 years. She noticed excessive hair growth on the anterior abdominal wall, mammary glands, and lower extremities. During the last year she gained 14 kg weight. Speculum examination: cervix is conic, external os is closed, epithelium is whole. Body of uterus is in anterflexio, small, mobile, painless. Ovaries are palpated on both sides of the uterus, 4x6 cm, painless, firm. Posterior fornix is deep. Discharge is mucous. What is the most probable diagnosis?

A. Adrenogenital syndrome

B. Itsenko-Cushing syndrome

C. Adenoblastoma of ovaries

D. Stein - Leventhal syndrome (Polycystic ovarian syndrome)

E. Sheehan's syndrome

5. A 15 year old girl complains of bloody discharge from the vagina for 2 weeks, which began after a 3 month delay of menstruation. Menarche at 13 years. Irregular menstrual cycle. Blood analysis: Hb - 90 gr/l, erythrocytes - 2,0x1012/l, leukocytes - 5,6x109/l. Rectal exam: the uterus has a normal size, the appendages are not palpated. What diagnosis is most probable?

A. Juvenile bleeding

B. Incomplete abortion

C. Blood clotting disorder

D. Polyp of the endometrium

E. Cancer of the endometrium

6. A 27 year old patient complains of irregular menstruation, infertility for 4 years. Obesity, hypertrichosis. During bimanual examination: the uterus is small, the ovaries on both sides are enlarged, firm. Discharge - leucorrhoea. Examination showed that the basal temperature is monophase. What is the diagnosis?

A. Shihane syndrome

B. Simmonds syndrome

C. Polycystic ovarian syndrome

D. Genital tuberculosis

E. Asherman syndrome

7. The uterine form of amenorrhea can result from all specified below diseases, except:

A. None of the below ovarian cyst

B. Frequent curettage of the uterine cavity

C. Genital infantilism

D. Chronic inflammation nonspecific etiology

E. Tuberculosis of endometrium

8. What is not used for diagnosis of disorders of the menstrual cycle?

A. Tests of functional diagnostics

B. Investigation of the hormone levels in the blood

C. X-ray of Turkish saddle

D. Determining the level of TTH

E. Use all of the above

9. A 36 year old patient came to the female consultation with complaints of increased irritability, tearfulness, headache, and palpitation, edema of the hands and feet, decreased urination, engorgement of the mammary glands. These symptoms occur and gradually increase some days before menstruation and disappear at the beginning of menstruation. The menstruation cycle is not dysfunctional. The listed complaints began last year. What is the diagnosis?

A. Climacteric syndrome

B. Shihane syndrome (postnatal hypopituitarism)

C. Premenstrual syndrome

D. Stein-Leventhal syndrome

E. Adrenogenital syndrome

10. A 35-year-old woman was addressed to the doctor 3 months ago with complaints of irregular profuse menstrual bleeding. The doctor administered oral contraceptives for 2 months. Despite of using oral contraceptives, bleeding continued. What is the conducting tactics?

A. Curettage of the uterus mucous membrane

B. Combined oral contraceptives

C. Estrogen

D. Nonspecific anti-inflammatory treatment

E. Progestin.

3.2. Educational materials, recommendations (instructions) for performing tasks

Etiology and Pathogenesis

Chronic inflammation of the genitals

If acute inflammation of the microbial factor is essential and unique etiological role, then the chronic inflammation that it does not matter. Etiological point of chronic inflammation may be any non-specific factor: the exacerbation of inflammation may be triggered by hypothermia, physical or psychological and emotional stress. But microbial factor. Knowledge of these characteristics of the etiology of chronic inflammation has radically changed approaches to the treatment of a large number of women who suffer from this disease, and led primarily to the refusal of antibacterial therapy in chronic inflammation. However, despite the uniqueness of the relationship to determine the place of the microbial factor in the pathogenesis of chronic inflammation, which characterizes the level of present knowledge, we must remember the possible formation of inflammation in the heart of L-forms of microbes, which under favorable conditions, can be converted into an active form.

In chronic VZG come to the fore the complex changes in the body, which gradually acquire polysystem character. Chronic inflammation of genitals should be understood as polisystem disease. There are changes in the nervous, endocrine, cardiovascular, immune, enzyme and other systems of the body.

Changes in the central and peripheral nervous system has a lead role in the pathogenesis of common reactions inherent inflammation of uterine appendages. Center for inflammation in the genitals is a source of abnormal impulses in the cerebral cortex, in subcortical structures to form in them the pain of the dominant. Clinical manifestations of functional disorders of the nervous system, the doctor sees, especially in astenonevroticheskom syndrome, emotional disorders. Changes in the function of the peripheral nervous system manifest themselves neuralgia, especially the pelvic nerves, persistent ganglionevritami that underlie persistent pelvic pain syndrome.

It is very important for the understanding and knowledge of proper treatment of changes that are obtained in the vascular system. These changes relate to general and local, local reactions. Observed significant violations of the regional blood circulation in the form of shortages of blood supply and vascular dystonia small pelvis, more pronounced in those places, where a connective tissue that is in the

spines, scars. Vienna Tubo-ovarian plexus have uneven diameter, they are mutilated, narrowed, sclerotic, dilated varicose. If acute inflammation of the penetration of vessels into the center of inflammation increased, then the chronic process it, on the contrary, decreased. This feature of chronic inflammation explains the ineffectiveness of drug therapy in these diseases, which are related to the difficulty of penetration of therapeutic substances into the center of inflammation through changes in vascular walls. Changes in regional blood circulation are accompanied by slowing blood flow, the formation of thrombosis, which can cause persistent pelvic pain syndrome. Venous outflow is assisting the development of varicose veins of the small pelvis. On the other hand poor micro-circulation promotes the progression of syndrome disiminirovannogo intravascular coagulation. Lack of blood supply to the development of chronic tissue hypoxia, in the end, turns the center of chronic inflammation in the center of the potential cancer prognosis. Understanding this point, the pathogenesis of chronic VZG forced to abandon the tactics of a prolonged conservative treatment for patients with inflammatory tumors. Total vascular reactions occur in the vascular dystonia, vascular spasm with headache, pain in the heart.

Marked disorders observed in the regulation of menstrual function, ie, in the hypothalamus-hypophysis-ovaries. Dysfunction of this system is manifested in changes in production of gonadotropic hormones (folikulostimuliruyuschego, LH), increased basal secretion, which will reduce production of sex hormones (estradiol and progesterone). Depressed function of the cortex of adrenal glands.

In recent years, a large place in the pathogenesis of chronic disease assigned to dysfunction of immune systems. Inhibition of T-and B-lymphocyte systems, their functional activity, the development of incomplete phagocytosis assist retsidutsirovaniyu processes. Of great importance not only inhibition of reactivity, but also its damage - a phenomenon develops autoalergii: the body no longer recognizes its own protein, modified microbial toxins, and produces antibodies to it organic. Circulating antibodies to organic tissues fallopian tubes, ovaries include antigen-antibody reaction, which assists the further destruction of cells of the affected organ (pipes, uterus etc.).

Much of the forth moments of the pathogenesis of chronic inflammatory processes is the result of research in recent years. This greatly changed the attitude to treatment of patients on chronic VZG, namely one of the most frequent of them - chronic adnexitises. It has become clear unreasonableness, and even harmful use of antibiotics, calcium preparations, the need to stimulate or regulate the function of immune systems, hazardous polipragmazii, especially against the background of chronic autoalergii VZG.

Clinical picture

Inflammatory genital diseases

In modern conditions VZG have some features that significantly distinguish them from clinical disease 20 years ago. They are characterized by:

• erased clinical symptoms of acute stage of disease;

• advantage of chronic processes, and in recent years, the emergence of primary chronic disease;

• stable during chronic relapsing processes;

• the most frequent localization of the inflammatory process in the appendages of the uterus;

• a rare defeat parametrial tissue,

• development of rare purulent processes.

For the classical picture of an acute inflammatory process characterized by the five classical signs of inflammation: calor, dolor, tumor, rubor, which are described Galen, and funktia laesa, described Celsius. For inflammation of the uterine appendages, the most common site of genital inflammatory process characterized by increasing temperature to 38-39 C, abdominal pain radiating to the inner thighs, in the back. At vaginal examination appendages defined enlarged, painful, swollen.

The presence of these signs of acute inflammation pathognomonic, and the absence of one of them should make the doctor think about the possibility of other pathology and more thoroughly differentsionnuyu diagnosis.

Bartholinitis

Bartholinitis is an inflammation of Bartholin's gland (large gland of vaginal vestibule). It may be caused by Staphylococcus, E.coli and N. gonorrhea. Any type of the pathogen initiates ductal inflammation and obstruction that can lead to Bartholin's abscess. There can be serous, serous-purulent, or purulent inflammation.

Obstruction of the opening of the main duct into the vestibule leads to abscess formation. Infection of Bartholin's glands can lead to secondary infections, abscess or cyst formation. When the gland becomes full and painful, incision and drainage is appropriate. Patients with abscess usually require abscess incision with insertion of the catheter in abscess cavity. Recurrent infection from vaginal flora and mucous cyst formation are common sequelae of bartholinitis. If the infection of gland is caused by N.gonorrhea specific antibacterial treatment is prescribed.

Vulvitis

Vulvitis is a vulvar inflammation. It may be primary and secondary. Primary vulvitis is caused by local irritants (including feminine hygiene sprays, deodorants,

tight-fitting synthetic undergarments in women with obesity or diabetes mellitus. Secondary vulvitis are caused by accompanying discharge from vagina.

Reduced estrogens levels in reproductive age women, and more frequent in girls and menopause women may lead to vulvitis.

Clinic. Erythema, edema of vulva and skm ulcers are all indices of the infection.

Patient's complains are itching or burning Excoriation caused by the patient's scratching of the skin of vulva are often seen m vulvar irritation

To relieve inflammation and itching the mam suspected cause must be removed The therapy includes local application of boric acid solution or KMn04 solution Candidasis is treated with Gyno-pavenl 150mg in suppositories — 3 days, or Orungal lOOmg twice a day during 6-7 days orally, and then one capsule per day every first day of menstrual cycle during 3-6 cycles. Treatment with local antibiotics and steroids is successful

Vaginitis (colpitis)

Vaginitis (colpitis) is an inflammation of vagina It is the most frequent cause of visits to gynecologists It may be caused by Staphylococcus, Streptococcus, E coh and other.

Excessive vaginal discharge is associated with an identifiable microbiologic cause m 80% to 90%of cases. Hormonal or chemical causes account for most of the remaining cases Vaginitis may be acute, subacute and chronic There are two forms of vulvitis purulent and granulosa-diffusional.

The main symptom is the increased, gray-white or yellow discharge generally serous or purulent with rancid odour. The patients complain of dysuria, vulvar itching, burning and dyspareunia. Examination may reveal edema or erythema of vulva and vagina, petechia or patches in the upper vagina or on the cervix. In case of chronic vaginitis all these signs are not so expressed. The cultures from vagina, cervix,urethra, ductus of Bartholin's gland should be microscopically examined.

Treatment of nonspecific vaginitis is comlex:

- using of antiinflammatory medicines
- treatment of neuroendocrinologic and immunodificiency conditions
- treating of male sexual partner; patients should avoid sexual contacts while therapy

Local treatment includes using of syringing with antiseptic fluid (KMn04, furacilin, chlorhexidin) no more than 3-4 days. In case of acute or chronic vaginitis laser therapy may be used.

Metronidazol (vaginal suppositories), chlorhinaldin, terginan, betadin, gyno-paveril may be prescribed. For normalization of vaginal ecosystem solkotry-chovac, vagilak, Lactobacterin and Bifidumbacterin are used.

Bacterial Vaginosis

10-25% of all gynecologic patients have this disease. Among sexually transmitted diseases, bacterial vaginosis is diagnosed in 60-65%) of women. Bacterial vaginosis is a result of an overgrowth of both anaerobic bacteria and the aerobic bacteria Gardnerella vaginalis. Anaerobes and G. vaginalis are normal inhabitants of vagina, but these bacteria overgrowth dominant of the normal Lactobacillus flora results in the appearance of a thin, fishy odor, gray vaginal discharge that adheres to the vaginal walls.

A small amount of vaginal discharge may be normal (2ml) particularly at the midcycle. Bacterial vaginosis causes an increased vaginal discharge (15-20ml), vulvar irritation, pruritus, dysuria and foul odour.

The diagnosis of bacterial vaginosis is based on the presence of the following characteristics of the discharge:

- pH is higher than 4,5
- a homogeneous thin appearance
- a fishy amine odour produced by anaerobes when 10% KOH is added
- presence of clue cells (vaginal epithelial cells to which organisms are attached)

Cultures aren't helpful because anaerobes and Gardnerella vaginalis can be recovered from normal flora of healthy women, but the concentration of both bacteria is higher in patients with bacterial vaginosis. Factors that lead to overgrowth of G.vaginalis and anaerobes have not been identified.

Treatment includes elimination of anaerobic agent of microflora, inducement of local and general immunity and then the normal microflora should be renewed.

Oral using of metronidazol (Flagyl) 500mg twice a day for 7 days or by intravaginal Metrogel 0,75% cream twice a day for 5 days, 2% Clindamycin cream (Cleocin) once daily for 7 days.

For normalization of vaginal microflora the local bifidumbacterin insertion or 2-3% solution of Lactic acid is used. The treatment of the male parthner with Metronidazol can be advocated only when bacterial vaginosis recurs, but effectiveness is not proven.

Endocervicitis

Endocervicitis is the inflammation of mucosa layer of the endocervix. Bacteria cause infection of the columnar epithelium. Chlamidia trachomatis, Mycoplasma, Trichomonada vaginalis, N. Gonorrhoeae, viruses, Candida, E.coli, Staphylococci cause endocervicitis.

Cervix is constantly exposed to trauma during childbirth, abortion.The abundant mucus secretion of the endocervical glands both with the bacterial ascend from the vagina creates a situation that is advantaging to infection.

The inflammatory process is chiefly confined to the endocervical glands. The squamous epithelium of the exocervix may be involved into the process called acute exocervicitis. The extent of endocervical involvement as compared with exocervical one appears to have some relation to the infecting agent.

Chronic cervicitis manifestation is cervical erosion. Erosion indicates the presence around the cervical os a zone of infected tissue that has a granular appearance. It implies the loss of superficial layers of the stratified squamous epithelium of the cervix and overgrowth of infected endocervical tissues.

The inflammatory process stimulates a reparative attempt in the form of anupward growth of squamous epithelium, causing some of the ducts of the endocervical glands to be obstructed. Retention of mucus and other fluid within these glands results in the formation of Nabothian cycts. These cysts are endocervical glands filled with infected secretion. Their ducts become secondarily included into the inflammation and reparative processes.

The most important in the diagnosis of chronic cervitis is the exclusion of the malignant process. Before the begining of treatment, examination with colposcope should be carried out. The cervicitis may appear as a reddish granulation raised above the surrounding surface, giving the impression of being papillary.

A Papanicolaou smear should be obtained and suspicious areas should undergo biopsy.

Treatment. Acute cervicitis is treated with appropriate antibiotics (it depends on bacterial agent). Local treatment of acute phase is a real danger of dissemination of infection. Laser therapy is used in treatment of acute and chronic cervicitis.

Electocautherization is the traditional treatment of chronic cervicitis, especially with erosion, cervical ulcers or ectropion. Nowadays cryosurgery or laser surgery has replaced electrocautherization.

Acute endometritis

Acute endometritis is an inflammation of endometrium (mucus layer of uterine). It may occur in such cases as: endometritis after uterine curettage or suction and puerperal endometritis. Endometritis is caused by bacterias, viruses, mycoplasmas.

The most frequent the associations of 3-4 anaerobic bacteria and 1-2 aerobic are the main reason of endometritis.

Anaerobic bacteria compose a part of the normal cervicogenital flora. There are two known mechanisms which cause anaerobic infection: antibiotic selection that preferentially inhibits aerobic bacteria and tissual trauma that occurs after surgery which reduces the redox potencial. Anaerobes produce odorous metabolic products.

Uterus has endometrium factors of local immunity. There are T-lymphocytes and other factors of cellular imunity in endometrial stroma. Lymphocytes and neutrophiels normally appear in the endometrium in the second half of menstrual cycle; their presence does not necessarily constitute endometritis. The appearing of plasma cells represents immune response, usually to foreign bacterial antigen. The organism should be cultured before applying of antimicrobal therapy. As anaerobes compose a part of normal flora, deep tissual cultures not contaminated by surface bacteria are required. Forty eight or more hours are required for anaerobe recovery, and treatment usually is based on clinical signs. There are nonspecific and specific endometritis. Specific endometritis is caused by M. Tuberculosis, N. Gonorrhea, Chlamidia trachomatis, Actinomyces.

Clinic. Fever is the characteristic feature in the diagnosis of endometritis, and it may be accompanied by uterine tenderness. If the infection has spread to the parametrium and adnexa, tenderness may be present there as well. Temperature elevation is probably proportionate to the extention of the infection and when confined to the decidua, the cases are mild and there is minimal fever. Chills may accompany fever. Women usually complain of abdominal pain. There is tenderness on one or both sides of the abdomen and parametrial tenderness is elicited upon bimanual examination. The uterus is lightly enlarged.

A leukocytosis and increased erythrocyte's sedimentation rate is revealed in patient' blood test. In some cases acute endometritis may become a chronic one.

Treatment. Various choices of initial antibiotic therapy are used. Most of them are successful. Single-agent therapy has the benefit of easy administration; Cephalosporins such as Cefotetan and Cefoxitin are commonly used. A combination of AmpiciUin and Aminoglycoside is also popular. The combination of Clindamycin with Gentamicin or Metronidasol with Unasyn (AmpiciUin with Sulbuctam) and Gentamicin is applied. It is desirable to provide additional antibiotic coverage if there has been no responce within 48 to 72 hours. Intravenous antibiotic therapy is continued until the patient is asymptomatic and afebrile period lasts for at least 24 hours.

Local uterine douching with antiseptic solution of chlorhexidin or furacilin has a good effect. In some cases uterine curettage is performed after temperature normalization.

Chronic endometritis

Chronic endometritis is a sequale of untreated acute endometritis or nona-dequate treatment of postabortion or purperal endometritis. The chronic endometritis sometimes is associated with the use of intrauterine device (IUD). In some cases it may occur without acute stage.

Clinic. The chronic endometritis results from organisms that are normally in lower genital tract (Protei, E. Coli, Staphylococcus, Mycoplasma). Bacteria that can be recovered are usually of low pathogenicity, but more virulent intrauterine bacteria occasionally cause the serous purulent' discharge, abnormal uterine bleeding and moderate uterine tenderness. Diagnosis is based on anamnesis and clinical manifestation. It could not be diagnosed unless plasma cells are found in the endometrium. Ultrasonography can identify gas vesicules in uterine cavity, hyperechogenic places (local fibrosis, sclerosis) in basal layer of endometrium.

Treatment. A complex treatment is used. It includes a medicines for curing of accompaning deseases, desensibilisative medicines and additional general health measures, vitamines.

Physiotherapy has an important role. It improves pelvic hemodynamics. Diathermy on lower abdomen, electrophoresis with copper, zinc, ultrasound, inductothermy, laser radiation are used. If during physiotherapy the process becomes strained antibiotic therapy is recomended. While remission antibiotic using is not proved.

Physiotherapy promotes to activation of hormonal ovarian function. If effect is not enouph than a hormonal therapy'is used (taking into account the patient's age, term of deseases, degree of ovarian hypofunction). Health resort treatment is effective (balneologic therapy, mudcure resort).

Salpingoophoritis

Salpingoophoritis is the inflammation of the uterine tubes and the ovaries. Salpingoophoritis is the most frequent among all pelvic inflammatory deseases. Most cases of oophoritis are secondary to salpingitis. The ovaries become infected by the purulent material that escapes from fallopian tube. If the tubal fimbriae are adherent to the ovary, the tube and ovary together may form a large retort-shaped tubo-ovarian abscess.

Most patients with salpingoophoritis have lower abdominal, adnexal tenderness (unilateral or bilateral) purulent cervical exudate or purulent vaginal discharge (fig. 88).

Clinic. There are four stages of salpingoophoritis. The first— salpingitis without irritation (inflammation), of the peritoneum, the second— with signs of peritonitis, the third with occlusion of uterine tubes and tuboovarian abscess and the fourth is

the rupture of tuboovarian abscess. During bimanual examination adnexal inflammatory mass is revealed.

The diagnosis of salpingoophoritis is based on the history, physical examination and laboratory tests. Besides that additional ultrasonography and laparoscopy can be used.

Laparoscopy provides the most accurate way to diagnose the inflammatory process and its stage. It should be used in cases when the diagnosis is unclear, especially in patients with severe peritonitis, to exclude a ruptured abscess and appendicitis. Besides diagnostic laparoscopy is used to provide treatment procedures.

Ultrasound can be used to distinguish the presence of an abscess from an inflammatory mass within the adnexal mass. It may also be helpful in defining mass in the obuse patient or if the bimanual examination is unsatisfactory because of the excessive tenderness.

Treatment. All patients with acute salpingoophoritis should be hospitalized. Adequate therapy of salpingitis includes the assessment of severity, antibiotic treatment, additional general health measures.

Before the culture test performing the antibiotic therapy is provide with broad spectrum antibiotics. The most effective is the combination of Clindamicin with Chloramphenicol, Gentamicin and Lincomicin, Doxycyclin, Clacid, Cefobid, Cyfran, Claforan, Dalacin C and Unasyn.

When anaerobic agents are suspected metronidazol should be used, in severecases intravenously. After temperature normalization and cessation of peritonitissigns antibacterial therapy is continued for 5 days. Detoxycation is indicated andis provided by using of 5% glucose solution, polyglucin, reopolyglucin, solutionsof proteins, correction of pH balance by using of 4% solution of Sodium bicarbo-nates. Among physical methods of treatment cold on the lower part of the abdomenis used. Appropriate antibacterial treatment is combined with laparoscopy activedrainage. The tuboovarial abscess is drained of pus by puncture and rinsed with bacteriostatic solution and local application of antibiotics. In subacute stage aloe, ultraviolet radiation, authohaemotherapy is used. They prevent the chronic processes.

Chronic salpingoophoritis. In most cases chronic salpingoophoritis is the sequale of non treated acute process. Chronic stage of the process is characterized by tubal occlusion with periovarial adhesions, tubal dysfunction.

Clinic. The main complains of the patient are: mild tenderness in lower part of abdomen that becomes severe during menstruation. Pelvic nerves have more painful sensitivity (pelvic plexitis, ganglionevritis due to chronic inflammation). In some cases menstrual dysfunctions such as oligomenorrhea, polymenorrhagia, algodismenorrhagia occur. Changing in uterine tubes and hypofunction of ovaries

lead to infertility or miscarriage. Secretory dysfunction like vaginal discharge or cervical exudate may be observed as a clinical finding of colpitis or endocervitis. Some patients complain of low libido, painful coitus, dysfunction of urinary bladder, liver tenderness.

Menstrual dysfunction (menorrhagia or metrorrhagia) is the most frequent symptom of chronic salpingoophoritis as a sequel of disorders of neurohomoral regulation of menstrual function. Metrorrhagia often occurs after cessation of menstruation and then the differential diagnosis should be made in case of ectopic pregnancy.

Diagnosis. Correct history taking (reveal of inflammation after abortion, delivery or dilatation and curettage) makes it possible to suspect the chronic inflammatory process. Primary chronic salpingoophoritis is found in more than 60% of cases. Some information gives physical examination and laboratory tests. Bimanual examination gives nonspecific information. Enlargement, consistency and degree of adnexa mobility should be examined. Sometimes because of peritubal and periovarian adhesions the sizes and mobility of adnexa are changed.

Additionally, ultrasound and laparoscopy, hysteroscopy should be held. Tomography or endoscopy may be used. Laparoscopy is the most informative diagnostic method to differentiate salpingoophoritis, external endometriosis, uterine myoma with inflammatory changes, cysts. Disorders of adjacent organs (bladder, intestine) while serous inflammation is present without structural changes. But women with disorders of urinary tract, gastro-intestinal tract must be additionally examined (urography, irrigoscopy).

Treatment of chronic salpingoophoritis is provided with minding of pathogenesis and clinic. Antibiotics are indicated in acute period, when there are signs of inflammation.

Nonsteroidal antiinflammatory drugs (Voltaren, Butadion) are prescribed. To stimulate immune system immunomodulators are used: (Decaris, T-activin). FIBS, aloe, autohaemotherapy are also used. Analgesia both by medicines and by reflextherapy is of great importance. Physiotherapy is conducted in hospital while in case of acute process and remission it can be used in ambulatory conditions. Ultrasound has analgetic and fibrinolityc influence and is prescribed in sinusoid and modulate of high frequency. Laserotherapy is also used. To escape chronic salpingoophoritis the acute salpingoophoritis must be treated in proper way and the quantity of abortion should be reduced.

Parametritis

Parametritis is an inflammation of parametrium. Inflammation of the whole pelvic cellular is called pelviocellulitis. According to international statistics these diseases are classified as acute parametritis or pelvic phlegmona.

Infection agents may be staphyloccocus, streptoccocus, E.coli, etc. It can be caused by one microbic agent or microbe association. It occurs after pathologic delivery, abortion, operation on genitals. The main way of infection spreading is lymphogenic. Morphologically parametritis is characterized by all signs of inflammation: dilation of blood and lymphatic vessels, peripheral edema, exudation. There are 3 stages in course of parametritis (infiltration, exudation, firming). Exudation may be serous, and very rarely it is purulent. Sometimes it undergo resorbtion and dissolves, sometimes a fibrose connective tissue grows and leads to uterine dislocation to the side of previous inflammatory process.

Clinic. Moderate tenderness in lower parts of abdomen, in back, high body temperature (38-39°C), tachicardia are found. Signs of peritoneal irritation and diminished or absent bowel sounds, especially associated with ileus, indicate more serious infection, including the possibility of abscess formation. Fever is a characteristic feature in the diagnosis of metritis and it is accompanied by uterine tenderness. Bimanually before or behind on left or right side of the uterus infiltration may be palpated. It is firm and immovable. Infiltration is classified into anterior, posterior and lateral.

Treatment begins from using antibiotic of broad coverage against a variety of common microorganisms and is usually prescribed without cultures.

Various choices of initial antibiotic therapy are used. Most of them are successful. Cephalosporins such as Cefotetan and Cefoxitin are commonly used. A combination of Ampicillin and Aminoglucoside and also the combination of Clindamycin with Gentamicin are used.

A bottle with ice on the lower part of abdomen is used in case of infiltrative stage of disease. Biostimulators should be prescribed. Management of a persistent pelvic abscess includes drainage by colpotomy, or laparotomy. Intraabdominal rupture of pelvic abscess is a surgical emergency. Sepsis may occur in association with pelvic infection, with or without frank abscess formation. Phisiotheraputic precedures are used for rehabilitation.

Tuboovarian abscess

Tuboovarian abscess (TOA) may occur as a complication of salpingoophoritis. It begins from acute purulent salpingitis when all layers of uterine tubes arc involved into the process. The tubes characteristically become swollen and redde i as the muscularis and serosa are inflamed. If exudate drips from the fimbriated ends of the tubes a pelvic peritonitis is produced then it can give rise to peritoneal adhesions. The swollen and congested fimbriaes may adhere to one another and produce tubal occlusion. The fimbriae may occlude tubes producing permanent tubal infertility. The swollen and congested fimbriae may adhere to ovary, trapping the exudate in the tube and giving rise to pyosalpinx or if the ovary becomes infected, a

tuboovarian abscess. The mucosal folds may adhere to one another forming gland-like spaces that are filled with exudate. If the infection subsides after agglutination of the fimbria and closure of the peripheral end of the tube, secretion accumulates and distends the tube, forming pyosalpinx. Each recidive of chronic salpingoophoritis has more clinical manifestation and is treated with difficulty. TOA is associated with IUD, microbe association, chronic salpingoophoritis.

Intoxication in case of TOA leads to liver disorders. Decreasing of albumin-globulin index is observed while the level of general proteins is normal for a long time. The degree of these disorders depends on the time of duration of the process.

Clinic. Clinic of TOA depends on the volume of purulent damage of adnexa, duration of the process, disorders of adjacent organs. There are some syndromes which are divided into local syndrome (pain, purulent discharge, peritoneal symptoms and palpation of tuboovarian mass).

Inflammatory-intoxicative syndrome includes fever, tachycardia, nausea, vomiting. Luecocytosis, decreasing of albumin-globulin index, C-reactive protein are observed in blood. Immune syndrome (decreasing of lymphocytes and mono-cytis in blood) is found.

Syndrome of adjacent organs disorders (dysuria, urinary frequency, menstrual disorders) is also possible.

Severe lower abdominal pain occurs, pelvic peritonitis may be present. Pain can irradiate to back, pelvic bottom, in the chest. In such cases the examinations should be performed to exclude pneumonia, pancreatitis, cholecystitis. Musclar defance which prevents abdominal palpation in the lower quadrants, adnexa are tender to various degrees and cervix movement may cause pain in case of bimanual examination. The adnexa often are either adherent to the posterior aspect of the uterine or prolapsed in cul-de-sac, which may pull the uterine into a retroverted position. TOA is characterized by pain and tenderness, fever or chills, temperature rises up 39°C, blood pressure decreases. Abdomen takes part in breathing, and it is painful in lower parts. In blood analysis elevated white blood count (9-10x107 1) erythrocytes' sedimentation rate more than 30mm/hour, positive C-reactive protein, decreasing of albumin-globulin index till 0,8 are observed.

Sometimes there can be urinary syndrome with proteinuria, leucocyturia. There may be disorders of filtrative kidney' function, even unuria. Changing of albumin-globulin index and hypofybrinogenemia characterizes the liver dysfunction.

Diagnosis is based on clinic, bimanual examination, laboratory analyses and additional methods of investigation (ultrasound, laparoscopy).

Treatment. Tuboovarian abscess is treated by antibiotics, desensibilisative and nonsteroidal antiinflammatory medicines, detoxication and immunostim-mulation.

Best of all one should combine taking of penicillin with tetracyclins. When anaerobic infection is suspected metronidazole is used. Daily punctions of tuboovarian abscesses are indicated to remove purulent containts.

Indications to surgical removal of tuboovarian abscess are:

- abscence of efficiency of complex treatment with usage of punctions during 2-3 days
- suspicion on tuboovarian abscess perforation; volume of surgical intervention depends on process' spreading, woman's age and extragenital pathology

Peritonitis

Pelvioperitonitis is an inflammation"of pelvic peritoneum.The polymicrobial infection such as Escherichia coli and other aerobic, enteric, gramnegative rods, group of β-hemolytic staphylococci, anaerobic, streptococci, Bacteroides species, staphylococci, mycoplasms cause the process. Pelvioperitonitis occurs secondary. Primary process is in uterine tubes, ovaries, uterus and parametrium. In most cases purulent damage of uterine adnexa lasts with pelvioperitonitis. Infection can be spread by limphogenic or blood vessels, and from uterine tubes in case of salpingitis, especially gonococcial infection.

Clinic characterizes the acute inflammation. High temperature, severe lower abdominal pain, fever or chills, tachycardia are common. There can be nausea and sometimes vomiting. Muscular defence and rebound tenderness are the symptoms of peritoneal irritation. Anterior abdomen wall takes part in breathing act.Tender adnexa are present at bimanual examination. Cervical motion causes pain. Posterior fornix is painfull.

Laboratory tests reveal increasing of white blood cell count and erythrocyte sedimentation rate. C-reactive protein levels may appear. Generall blood test should be done 4-5 times per day to diagnose transformation of pelvioperitonitis to peritonitis.

Treatment. All the patients should be hospitalized. Ideally, the antibiotic should be selected according to the organism present in the fallopian tube or uterus, but in most cases empiric therapy must be used. Treatment includes intravenous doxycycline and either cefoxitin or cefotetan or intravenous clindamycin and gentamicin for at least 4 days followed by oral clindamicin or tetracyclin for 10-14 days. Hospitalized patients who have peritonitis but do not have adnexal abscess usually respond rapidly to the regimens. In the presence of an adnexal abscess, even if the systemic manifestations are mild, antibiotics which eliminate B.fragilis should be selected because most pelvic abscesses contain this organism. Clindamycin, Metronidazol, Cefoxitin, or Impinem should be used to treat pelvic abscess. If there is an intrauterine device it should be removed as soon as therapy is started. Surgery

is indicated in the case of ruptured pyosalpinx or ovarian abscess. Colpotomy drainage usually is preferable when unruptured midline cul-de-sac abscess is present. Laparotomy is required for such problems as unresolved abscess or adnexal mass that does not subside, surgery should be limited to the most conservative procedures that will be effective. Unilateral abscess respond to unilateral salpingoophorectomy.

INTRAUTERINE INFECTIONS. TORCH - COMPLEX.

Intrauterine infections – diseases, occurring as a result of the infection of the fetus from the woman during pregnancy or birth. The fetus is characterized by delay in mental and physical development. In 1971, WHO distinguished TORCH - COMPLEX - group of viruses, bacterial infections causing persistent structural changes:

T - TOXOPLASMOSIS

O - OTHER

R – RUBELLA

C - CYTOMEGALOVIRUS INFECTION

H - HERPETIC INFECTION.

The group OTHER includes syphilis, clamidiosis, enterovirus infections, hepatitis A, B, gonorrheal infection, listeriosis; this group probably also includes measles, epidemic parotitis. Hypothetical infections - flu A, lymphocytic choriomeningitis, human papilloma virus.

The frequency of the given pathology is not known. The perinatal death rate is 28%.

In the structure of the death rate the following are most frequently seen:

Mycoplasmosis 12%

Herpes 10%

Clamidiosis 8%

Acute respiratory viral infections 8%

Cytomegalovirus infection 6%

Candida 2-3%

Hepatitis B

Listeriosis 1-2%.

Pathogenesis.

There is a complex of influences, rendering direct indirect influences:

• hyperthermia

• pathological action of microorganisms and their toxins

• disorder of the placentation process

• disorder of the exchange processes

Concrete character of the disorder of the fetus depends on: type of pathogen, its number and virulence.

There is no parallelism between virulence and affect. Character of the infectious process. Also there is no direct dependence between the severity of the process and the character of the infectious process (latent, acute, chronic).

The greatest dangers are infections, with which a woman comes in contact with during the pregnancy for the first time. A chronic process is not dangerous for the fetus if the mother does not immune deviancy.

Ways of penetration from the mother to the fetus:

• transplacental

• ascending (from the vagina)

• descending (from the fallopian tubes)

• from the endometrium into the deciduous membrane (by contact) - transmural.

The ascending way of distribution of an infection is the most often. It is characteristic for infections sexually transmitted. Contamination occurs antenatal, intrapartum.

Infection of the amniotic fluid syndrome (conditioned pathogenic microorganisms - clamydia, fungi, mycoplasma, enterococcus). The amniotic fluid has protective properties, but they only delay the growth of the microorganisms. Four hours after the membrane ruptures, there can already be Gram-negative microorganisms. The amniotic fluid is an environment for the accumulation of microorganisms. Contamination by the amniotic fluid is probable by swallowing, aspiration, by direct contact of the fluid with the mucous and skin, by passage through infected birth canal, and also hematogenous. If the latter occurs, contamination of practically all the organs is possible, more often centers occur in the kidneys; secondary contamination of the fluid occurs, that is a vicious circle. By hematogenous (transplacental) ways of infection, certain conditions are necessary: bacteriemia, viremia, parasitemia. More often centers are formed in the placenta with subsequent infection of the fetus. Only viruses penetrate the fetus immediately.

Gestosis, cardiovascular diseases promote intrauterine infection, during these diseases an increase in the permeability of tissues occurs.

Term of the pregnancy. Infectious embryopathy occurs from the 3rd through the 12th weeks. The fetus does not have immunity, disorder in the laying of the organs and systems will cause teratogenic and embryotoxic effect. More often it is caused by viruses. Teratogenic effect - developmental anomalies and deformities of the fetus. Embryotoxic effect – affection of the chorion, as a result the embryo dies.

Infectious fetopathy occur from the 16th week and till birth. The fetus possesses specific reactions to certain stimuli. Developmental anomalies can occur (early fetopathy): endocardial fibroelastosis, cystic disease, micro- and hydrocephaly. Late fetal period is from the 6th month. The fetus during this period can react with a leukocytic reaction; encephalitis, hepatitis, pneumonia, interstitial neuritis can occur. The influence of viruses primarily in the late fetal period can cause functional disorders: attributes of immaturity, disembriogenetic stigma, decrease in the adaptability of the fetus, delay in mental and physical development.

The fetus's ability of the immune reaction. The fetus has a physiological immunodeficiency and an absence of its own microflora.

Protective reserves from the mother.

The clinic depends on the factors described above. Infectious affection of the mother are various:

• complicated pregnancy and birth

• disorder of the embryo and fetus

• diseases of the newborns

Complications:

• threat of disruption of the pregnancy and miscarriages

• gestosis

• anemia

• anomalies of attachment of the placenta

• premature detachment of the normally located placenta

• anomalies of labor

Disruption of the pregnancy. As microorganisms render tonomotor action on the uterus (establishing the generality of antigens of microorganisms and the organism for bacteroidosis, mycoplasma, etc. which possess phospholipids - triggers for

labor). Phospholipids of the bacterial origin start the synthesis of prostaglandin (E2, F2 alpha), which results in the beginning of labor.

Complications of the pregnancy also act upon the condition of the fetus. Clinical displays of the fetus and newborn: hypotrophy, hypoxia, for the newborn there are a lot of displays and they are nonspecific: hypoxia, respiratory distress-syndrome, hyaline membrane disease, sluggish, decrease in muscular tone, reflexes, jaundice, hydrops fetalis, disseminated intravascular coagulation syndrome. Gastrointestinal tract: regurgitation, rejecting food, maybe massive decrease in body weight.

Virus infections are characterized by: a delay in intrauterine development, encephalitis, hepatitis, nephritis, pneumonia, disorders of the GIT.

All of the displays are similar to hypoxia or traumatic affection of the fetus. A part of the children are born without displays of infection, however the virus persists - for example, the Coxsackie virus causes hydrocephaly, the rubella virus causes progressing cataracts.

T, R, C and listeriosis have nonspecific syndromes.

Rubella:

1. Absence of development, retinitis, cataract, sometimes glaucoma.

2. Congenital heart diseases such as an open arterial duct, stenosis of the pulmonary arteries.

3. Deafness.

4. Mental deficiency.

Cytomegalovirus infection:

1. Hepatosplenomegaly.

2. Jaundice.

3. Hemorrhagic rash.

4. Microcephaly.

5. Bilateral periventricular calcification.

6. Disorders of the eyes: chorioretinitis, microophthalmia.

Toxoplasmosis.

1. Widespread necrotic changes – necrotic meningoencephalitis - micro- and hydrocephaly.

2. Changes in the eyes - chorioretinitis - atrophy of the optic nerve, cataract, microophthalmia, paresis of the oculomotor muscles.

Listeriosis.

1. Numerous rashes, papula with bullos-like heads, millet grain with a red band in the basis, located on the back, buttocks, extremities, on the mucous of the esophagus, pharunx, conjunctiva, mucous of the intestines, bronchial tubes, etc.

2. Granulomatous sepsis with the rupture of these papula.

Diagnostics of intrauterine infections: performed in 3 stages:

1. Diagnostics during the intrauterine period.

2. Diagnostics during birth.

3. Diagnostics with the display of clinical attributes.

METHODS OF DIAGNOSTICS DURING THE INTRAUTERINE PERIOD.

The direct methods are directed on finding the pathogen (cultural, histological, etc.). Indirect methods are based on studying the condition of the mother: diagnostics of infections of the mother, determining the immunological status, metabolic shifts. Material for study – aspirate of the chorion during chorion-biopsy, amniotic fluid during amniocentesis, fetus's blood during a puncture of the umbilical cord. Material for study from the mother - saliva, discharge from the nose and pharunx, blood, urine, discharge from the cervix uterus, uterine pharunx. Immunoglobulin G, M in seronegative pregnant women specifies of a primary infection (that most dangerously). Immunoglobulin G in a small titre specifies of the immunization of the pregnant woman in the past. An increase in the titre of IgG in dynamics or the appearance IgM specifies a relapse of an infection during the pregnancy. Material from the newborn – aspirate, blood, meconium, urine, cerebrospinal fluid. Thus, the primary criterion of diagnostics – identifying the microbe in various materials.

Treatment. Principles:

1. Antibiotic therapy (taking into account the pathogen, its sensitivity, pharmacokinetics, term of the pregnancy. Access of antibiotics to the intestines, lungs of the fetus should be minimal).

2. Desensitizing therapy.

3. General restorative therapy.

4. Immune modulating therapy.

5. Disintoxication therapy.

6. Prophylaxis of complications.

Prophylaxis.

• Treatment of extragenital diseases of the mother

• Treatment of urinogenital diseases

• Observing personal hygiene, hygiene of sexual life

• Sanitation of the centers of infection

• Careful conducting of birth

• Limited contact with animals

• Observing sanitary-hygienic mode in the maternity hospital.

3.3. Requirements for the results of work.

Show the phantom method of physical examination on organ systems.

Show on phantom gynecological examination.

Demonstrate phantom performance tests of functional diagnostics, fractional diagnostic curettage of the uterus

Collect special gynecological history, assess the results of laboratory studies (general and biochemical analyzes of blood, urine, blood coagulation system, etc.).

In gynecology department: to take the history, perform an objective and gynecological examination of the patient, to appoint examination

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

Tests

1. A 30-year-old patient was hospitalized in the gynecological department with complaints of pain in the lower abdomen, radiating to the lower back, fever up to 37.30C. Objectively: the cervix is cylindrical, the pharynx is closed. The body of the uterus is normal, painless, mobile. The appendages are slightly enlarged, limited in mobility, painful. The vaults are free. Highlights - white. What is the most likely diagnosis?

A. Ovarian cyst.

B. Endometritis.

+ C. Chronic salpingo-oophoritis in the acute stage.

D. Polycystic ovary disease.

E. Pelvioperitonitis.

2. A 17-year-old woman complained of fever up to 38 degrees, pain in the lower abdomen. Complaints appeared 3 days after the next menstruation, which began on time. The abdomen is soft, painful in the lower parts. At bimanual research the

uterus without features, appendages are slightly increased, pasty, limited mobility, painful at a palpation, excursions of a neck of uterus are painful. Your diagnosis?

A. Ovarian cystoma.

+ B. Acute salpingo-oophoritis.

C. Ovarian cancer.

D. Endometritis.

E. Endometriosis.

3. A 32-year-old woman complained of pain in the lower abdomen, fever, chills, profuse discharge from the genital tract. A medical abortion was performed 4 days ago. On examination, the abdomen is soft, painful on palpation in the lower parts, the symptoms of peritoneal irritation are negative. The uterus is slightly enlarged, painful on palpation, inhomogeneous consistency. Appendages without features, discharge from the genital tract serous-purulent. Probable diagnosis:

A. Acute salpingo-oophoritis.

+ B. Acute endometritis.

C. Endometriosis.

D. Bacterial vaginosis.

E. Urogenital candidiasis.

4. A 26-year-old woman went to a women's clinic with complaints of mucopurulent discharge from the genital tract, dull intermittent pain in the lower abdomen, accelerated, painful urination. Examination of the cervix in the mirrors reveals hyperemia around the external pharynx, mucosal edema, as well as abundant mucopurulent discharge. Previous diagnosis:

A. Cervical erosion.

B. Colpit.

S. Cervicitis.

+ D. Endocervicitis.

E. Endometritis.

5. A 33-year-old patient was admitted to the gynecological hospital with complaints of sharp pain in the lower abdomen, fever up to 380C, vaginal discharge of a purulent nature. There were no births or abortions. Sex life is chaotic. At bimanual research the cervix of a conical form, a throat is closed. The uterus is not enlarged, painful on palpation. The appendages are enlarged, painful on both sides. The vaults

of the vagina are painless. Vaginal discharge is abundant, purulent. To establish the diagnosis it is shown:

+ A. Bacteriological examination of secretions from the genital tract.

B. Colposcopy.

C. Probing the uterus.

D. Scraping of the uterine mucosa.

E. Puncture of the abdominal cavity through the posterior vault of the vagina.

6. A 46-year-old patient was taken to the hospital with complaints of intense lower abdominal pain, nausea, vomiting, body temperature of 39.5 ° C. Has been using the IUD for contraception for the past 12 years. Condition of moderate severity, pulse 120 per 1 min, blood pressure 120/80 mm Hg. Art. The tongue is dry, covered with white plaque. The abdomen is swollen, sharply painful in all departments, the symptom of Shchitkin-Blumberg is sharply positive. At bimanual research in a small pelvis the sharply painful, motionless conglomerate in the sizes of 12-14-I8 cm is palpated; the posterior vault of the vagina overhangs, sharply painful. Which diagnosis is most likely?

A. Endometritis on the background of the use of the IUD; suppuration of ovarian cysts.

B. Endometritis on the background of IUD use, acute bilateral salpingitis; pelvioperitonitis.

+ C. Endometritis on the background of the use of the IUD; perforation of tuboovarian abscess; diffuse peritonitis.

D. Uterine fibroids with necrosis of one of the nodes; acute purulent salpingitis; diffuse peritonitis.

E. Ovarian cancer stage IV.

7. A 46-year-old patient was taken to the hospital with complaints of intense lower abdominal pain, nausea, vomiting, body temperature of 39.5 ° C. Has been using the IUD for contraception for the past 12 years. Condition of moderate severity, pulse 120 per 1 min, blood pressure 120/80 mm Hg. Art. The tongue is dry, covered with white plaque. The abdomen is swollen, sharply painful in all departments, the symptom of Shchitkin-Blumberg is sharply positive. At bimanual research in a small pelvis the sharply painful, motionless conglomerate in the sizes of 12-14-I8 cm is palpated; the posterior vault of the vagina overhangs, sharply painful. Tactics and scope of surgery?

A. Removal of the IUD with the next combined. antibacterial and infusion

transfusion therapy for 7 days. In the absence of effect -

Pfanenshtil's peritoneum, bilateral adnexectomy.

B. Drainage of the pathological formation under the control of transvaginal ultrasound with

followed by antibacterial and infusion therapy.

C. Therapeutic and diagnostic laparoscopy; rehabilitation and drainage of the abdominal cavity.

+ D. Emergency peritoneum; lower median laparotomy; pangysterectomy;

drainage of the abdominal cavity.

E. Emergency laparotomy; peritoneum after Joel-Cohen; supravaginal amputation

uterus with fallopian tubes.

8. In a 36-year-old woman at cytological examination of a smear-imprint of the vaginal part of the cervix found atypical cells on the background of colpitis. Colposcopic examination and histological examination of the scraping of the mucous membrane of the uterus and cervical canal did not reveal pathological changes. Define medical tactics:

A. Anti-inflammatory therapy.

B. Does not require additional observation.

C. Repeat fractional diagnostic scraping of the uterine mucosa.

+ D. Repeat cytological examination after anti-inflammatory therapy.

E. Carry out diathermocoagulation of the cervix.

9. In the gynecological department there is a 32-year-old patient with acute bartholinitis. Body temperature 38.2oC, blood leukocytes 10.4 T / l, ESR 24 mm / h. In the area of the large gland the day before - skin redness, a symptom of fluctuation, sharp pain. What is the most correct tactic for a doctor?

A. Antibiotic therapy.

B. Antibiotics + sulfonamides.

C. Opening, drainage of gland abscess

+ D. Disclosure, drainage of gland abscess + antibiotics.

E. Antibiotics + detoxification + biostimulants.

10. A 22-year-old woman was hospitalized in the gynecological department with complaints of lower abdominal pain, fever up to 39.50C. Objectively: pulse 108

beats / min, blood pressure 120/80 mm Hg The abdomen is moderately swollen, sharply painful in the hypogastric area. The Schitkin-Blumberg symptom is positive in the hypogastric region. Vaginal examination: the uterus and appendages are not palpable due to the tension of the anterior abdominal wall, the posterior vault of the vagina overhangs, sharply painful. What is the most likely diagnosis?

A. Acute adnexitis.

B. Ectopic pregnancy.

C. Ovarian apoplexy.

D. Acute endometritis.

+ E. Pelvioperitonitis.

Select from the text laboratory data confirming the diagnosis and prescribe treatment.

Reply:

Urogenital candidiasis in this case is confirmed by the following data:

- complaints of discomfort, itching, itching of the external genitalia.
- examination in mirrors: severe redness and swelling of the mucous membrane of the vagina and cervix. In the posterior vault of the vagina there are secretions of syrupy, milky white. The same discharge is present in the external pharynx of the cervix and urethra.
- microbiological examination: the analysis of the microflora of the vagina, cervical canal and urethra revealed many leukocytes, mixed microflora and a fungus of the genus Candida.

Treatment: the main place in the pharmacotherapy of urogenital candidiasis belongs to antifungal drugs, which must be prescribed taking into account the identified type of candidiasis and data on sensitivity to essential drugs. Treatment should be carried out with antifungal drugs of both general and local action (fluconazole, clotrimazole, nystatin)

D. SUMMING UP

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

Criteria for current assessment on the practical lesson:

5 The student is fluent in the material, takes an active part in the discussion and solution of situational clinical problems, confidently demonstrates practical skills during the examination of a pregnant and interpretation of clinical, laboratory and instrumental studies, expresses his opinion on the topic, demonstrates clinical thinking.

4 The student is well versed in the material, participates in the discussion and solution of situational clinical problems, demonstrates practical skills during the examination of a pregnant and interpretation of clinical, laboratory and instrumental studies with some errors, expresses his opinion on the topic, demonstrates clinical thinking.

3 The student isn't well versed in material, insecurely participates in the discussion and solution of a situational clinical problem, demonstrates practical skills during the examination of a pregnant and interpretation of clinical, laboratory and instrumental studies with significant errors.

2 The student isn't versed in material at all, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of a pregnant and the interpretation of clinical, laboratory and instrumental studies.

RECOMMENDED LITERATURE

Basic:

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