MINISTRY OF HEALTH OF UKRAINE

ODESSA NATIONAL MEDICAL UNIVERSITY

Faculty of international

Department of Obstetrics and Gynecology

I APPROVE

Vice-rector for scientific and pedagogical work

_____ Eduard BURIACHKIVSKYI

"01" September 2023

METHODICAL DEVELOPMENT FOR PRACTICAL LESSONS

FROM EDUCATIONAL DISCIPLINE

Faculty of international, course IV

Educational discipline "Obstetrics and gynecology"

Practical lesson № 5. Topic : « Benign tumors of female genitalia. Endometriosis »

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

Protocol №1 dated August 28, 2023.

Head of the department _____ (Ihor GLADCHUK)

Developer: associate professor of the department of Obstetrics and Gynecology _____ Kozhakov V.L.

Practical class №5.

« BENIGN TUMORS OF FEMALE GENITALIA. ENDOMETRIOSIS. BREAST FORMATION»

LEARNING OBJECTIVE is to acquaint the students with the issues of clinics, diagnostics and treatment of benign tumors of the female genitalia.To know the classification of kinds of benign tumors of the female genitalia. To acquaint the students with the issues of clinics, diagnostics and treatment of endometriosis.

BASIC CONCEPTS:

1. Definition of cyst and tumor of ovary.
2. Cyst of Bartholin gland: clinics, diagnostics, complications, treatment.
3. Tumor-like masses in ovaries: clinics, diagnostics, complications, treatment, tactics of GP.
4. Benign tumors of ovaries (epithelial, tumors of genital cord stroma, lipid-cellular, germ cell tumors): clinics, diagnostics, complications, treatment, tactics of GP.
5. Benign tumors of uterus: clinics, diagnostics, complications, treatment, indications to surgical treatment, tactics of GP.
6. Endometriosis: etiology, pathogenesis, classification, clinics, diagnostics, modern treatment methods, tactics of GP, methods of rehabilitation of reproductive function.

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

I. ORGANIZATIONAL STAGE

- Greetings,
- checking attendees,
- defining of educational goals,
- providing of positive motivation.

Now there is a significant increase in the incidence of fibroids. Thus, the incidence of all, who goes to the clinic amounts to 15-17%. In recent years become common cases of uterine cancer disease in women of childbearing age (30-35 years). Increased incidence of uterine cancer bind with the influence of environmental factors, work svyazanoy hazardous production factors, neuropsychiatric surge.Sered tumors of the female genital tumors of the ovaries is second only to cervical cancer. The diversity of the structure and origin of

ovarian tumors due to their participation in the structure of different histological structure, origin and embryogenesis cells with different hormone and secretion.

Endometriosis is marked in 7-50% of menstruating women, during menopause it does not always regress and in 1-2% of the cases it continues as malignant. The frequency of recurrence of endometriosis changes from 2% up to 47%. At the same time, endometriosis in healthy women is observed in 5-20% of the cases and in more than 60% of patients with infertility and\or pelvic pains.

II. 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:

- Pelvis from anatomical point of view.
- Videos from laparoscopic surgeries
- TVS-scans
- Measurement and evaluation of the pelvis.

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

Questions:

1. The etiology and pathogenesis of uterine fibroids;

2. Classification of uterine fibroids and their frequency;

3. The basic principles of diagnosis, treatment and prevention of uterine fibroids;

4. The classification of benign ovarian tumor they differ from ovarian tumors and malignant tumors;

5. The role of preventive examinations in a timely diagnosis and follow-up features for patients with tumors of the ovaries;

6. The possible complications and their prevention, including surgical treatment, their required amount konkrktnom in each case.

Test tasks

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

1. The posterior rectus fascia (sheath) ends at the
(A) insertion of the rectus muscles
(B) insertion of the anterior rectus sheath
(C) arcuate line (semicircular line, linea semicircularis, line of Douglas)
(D) area approximately 3-4 cm below the umbilicus
(E) area approximately 2-3 cm above the pubic symphysis

2. Sacrospinous ligament
(A) a thick band of fibers filling the angle created by the pubic rami
(B) passes from the anterior superior iliac spine to the pubic tubercle
(C) triangular and extends from the lateral border of the sacrum to the ischial spine
(D) attaches to the crest of the ilium and the posterior iliac spines superiorly with an inferior attachment to the ischial tuberosity
(E) passes over the anterior surface of the sacrum

3. Sacrotuberous ligament
(A) a thick band of fibers filling the angle created by the pubic rami
(B) passes from the anterior superior iliac spine to the pubic tubercle
(C) triangular and extends from the lateral border of the sacrum to the ischial spine
(D) attaches to the crest of the ilium and the posterior iliac spines superiorly with an inferior attachment to the ischial tuberosity
(E) passes over the anterior surface of the sacrum

4. Ilioinguinal ligament
(A) a thick band of fibers filling the angle created by the pubic rami
(B) passes from the anterior superior iliac spine to the pubic tubercle
(C) triangular and extends from the lateral border of the sacrum to the ischial spine
(D) attaches to the crest of the ilium and the posterior iliac spines superiorly with an inferior attachment to the ischial tuberosity

(E) passes over the anterior surface of the sacrum

5. Arcuate ligament
(A) a thick band of fibers filling the angle created by the pubic rami
(B) passes from the anterior superior iliac spine to the pubic tubercle
(C) triangular and extends from the lateral border of the sacrum to the ischial spine
(D) attaches to the crest of the ilium and the posterior iliac spines superiorly with an inferior attachment to the ischial tuberosity
(E) passes over the anterior surface of the sacrum

6. Formed by the superior and inferior pubic rami and covered by a central membrane through which a nerve, artery, and vein pass
(A) obturator foramen
(B) greater sciatic foramen
(C) lesser sciatic foramen
(D) sacrospinous ligament
(E) sacral foramina

7. The internal pudendal vessels and pudendal nerve exit the pelvis but then reenter through this structure
(A) obturator foramen
(B) greater sciatic foramen
(C) lesser sciatic foramen
(D) sacrospinous ligament
(E) sacral foramina

8. Divides and demarcates the greater and lesser sciatic foramen
(A) obturator foramen
(B) greater sciatic foramen
(C) lesser sciatic foramen
(D) sacrospinous ligament
(E) sacral foramina

9. The piriformis muscle, gluteal vessels, and posterior femoral cutaneous nerves pass through this structure
(A) obturator foramen
(B) greater sciatic foramen
(C) lesser sciatic foramen
(D) sacrospinous ligament
(E) sacral foramina

10. Four anterior and four posterior openings through which pass small nerves
(A) obturator foramen
(B) greater sciatic foramen
(C) lesser sciatic foramen
(D) sacrospinous ligament
(E) sacral foramina

11. Which of the following statements is FALSE?
(A) The ischium has a body and two rami
(B) The internal surface of the body of the ischium provides attachments for the levator ani muscle and coccygeus muscle
(C) The superior ramus is located cephalad to the inferior ramus in the standing position
(D) The superior ramus forms the dorsolateral portion of the obturator canal
(E) The ischial tuberosity is the lowest portion of the pelvis in the erect or sitting posture and bears the weight of the human frame in the sitting position

12. Regarding the pubis, which of the following statements is FALSE?
(A) The pubis has a body and two rami
(B) The superior edge of the body of the pubis, lateral to the midline, has a raised area called the anterior iliac crest a common landmark
(C) The inferior ramus is the attachment of the adductor magnus and brevis, and obturator internus muscles
(D) The inferior rami form the lower portion of the pubic arch
(E) Inferiorly, the pubic bone is the attachment for the urogenital diaphragm

13. The sacrum
(A) is formed from 11 or 12 small fused vertebrae
(B) has an uppermost anterior portion called the obstetrical conjugate
(C) in women has a concave pelvic surface
(D) is separated from the vertebrae that make up the coccyx by the sacrococcygeal joint
(E) most often is the limiting factor in determining the size of the pelvic outlet

14. Which of the following is a muscle of the external genitalia?
(A) the gluteus
(B) the sartorius
(C) the superficial transverse perineal
(D) the deep transverse perineal
(E) the levator ani

15. The term pudenda includes the

(A) mons pubis
(B) vulva
(C) labia
(D) external genitalia
(E) all the above

16.The term perineum describes
(A) the entire area between the thighs from the symphysis to the coccyx, bounded inferiorly by the skin and superiorly by the levator muscles of the pelvic diaphragm
(B) the anus and perianal area
(C) the superficial skin layer of the vulva
(D) the tendon joining the muscles deep to the external genitalia
(E) bulbocavernosus, ischiocavernosus, and transverse perineal muscles as a complex

17. The clitoris
(A) consists of a single crurum, a short body, and the glans clitoris, with overlying skin called the prepuce
(B) is attached to the pubic bone by a suspensory ligament
(C) contains within the shaft the corpora cavernosa, a collection of dense connective tissue that serves as support for the anterior-inferior portion of the vagina
(D) is supplied very sparsely with nerves originating primarily from the terminal branch of the ilioinguinal nerve in most women
(E) plays a secondary role in erotic stimulation in most women when compared to the role of the vagina

18. Which of the following statements regarding the muscles of the external genitalia is TRUE?
(A) The bulbocavernosus muscle surrounds the distal vagina and vestibule on each side as a single continuous strip of muscle, much like other sphincters
(B) The ischiocavernosus muscle takes origin from the ischial tuberosity and inferior ischial ramus and inserts upon the inferior pubic ramus on each side of the pelvis
(C) The superficial transverse perineal muscle arises from the ischial tuberosity and inferior ischial ramus and inserts between the posterior vagina and anterior rectum
(D) The perineal body serves as a central connection for all the superficial muscles of the external genitalia except the transverse perineal muscle which inserts directly on the external anal sphincter

(E) The muscles of the external genitalia are usually spared at the time of episiotomy when the levator ani muscle is routinely divided

19. Which of the following statements about the vagina is FALSE?
(A) The vagina is a 7-10 cm canal connecting the internal and external genitalia from the vestibule to the uterine cervix
(B) It is a hollow, distensible, fibromuscular tube with the apex (vault) having an H-shaped lumen and the external opening being flattened in the dorsal-ventral dimension
(C) The body of the vaginal tube is flattened in its normal resting state
(D) The mid-portion of the vaginal axis is nearly perpendicular to the lower sacrum in the adult human female in a standing position
(E) The posterior fornix (back wall of the vagina) is approximately 2 cm longer than the front wall and is directly connected to the peritoneal pouch (posterior cul de sac, retrouterine space, or pouch of Douglas) directly behind the uterus

20. When the infantile uterus is examined, one finds that
(A) the cervix is larger than the corpus (body of the uterus)
(B) the position is always anteflexed
(C) the cervix is the same size as the corpus
(D) the body is larger than the cervix
(E) it is as large as the adult organ in the immediate newborn period

21. The portio vaginalis of the cervix is that part which
(A) extends cephalad from the vagina
(B) protrudes into the vagina
(C) forms an internal isthmus
(D) is normally covered with endocervical epithelium
(E) all the above

22. Which of the following statements regarding the uterus is FALSE?
(A) The uterus has a body (corpus), composed mainly of smooth muscle, and a cervix, composed mainly of connective and elastic tissues, that are joined by a transitional portion (isthmus)
(B) It is an estrogen-dependent organ measuring about 7.5 cm long by 5 cm in width, and 4 cm anterior to posterior diameter in an adult female
(C) After puberty the uterus weighs about 50 grams in the nullipara and 70 grams in the multipara
(D) It lies between the bladder anteriorly and the pouch of Douglas in front of the rectum posteriorly, with the cervical portion extending into the abdomen and into the vagina
(E) The opening at the distal tip of the cervix is called the internal os

23. The uterus and adnexa are normally mobile structures, but they do have some relatively fixed anatomic characteristics. Which, if any, of the following statements about their relationship and/or positions is FALSE?
(A) Anteflexion means that the uterus is bent forward on itself
(B) The ovaries can be normally found caudad to the cervix
(C) The round ligaments are normally attached to the uterus anterior to the insertion of the fallopian tubes
(D) Adnexa refers to the tube, ovary, and their connecting structures
(E) All statements are true

24. Regarding the anatomy of the fallopian tube, which of the following statements is FALSE?
(A) Fallopian tubes are a conduit from the peritoneal to the uterine cavity
(B) Each fallopian tube traverses the superior portion of the broad ligament attached by a mesentery (mesosalpinx)
(C) The fallopian tube has four distinct areas in its 8-12 cm length: the portion that runs through the uterine wall (interstitial or cornual portion), the part immediately adjacent to the uterus (isthmic portion), the mid-portion of the tube (ampulla), and the distal portion containing the finger-like fimbria that expels the ovum (infundibular portion) to begin its passage toward the ovary
(D) The longest of the fimbriae (fimbria ovarica) is attached to the ovary
(E) Each tube is covered by peritoneum and consists of three layers: serosa, muscularis, and a nonciliated mucosa

25. Which of the following statements about the ovary is FALSE?
(A) The ovaries normally change in size through-out a woman’s lifetime
(B) The ovary is supported in its normal anatomic position by the infundibulopelvic ligament and the ovarian ligament
(C) The ovary produces both hormones and germ cells
(D) The ovary lies in the ovarian fossa of the true pelvis, overlying the iliac vessels
(E) The ovary produces the estrogens and androgens that regulate sexual desire in the human female

26. The pelvic peritoneum covers all of the following pelvic structures EXCEPT the
(A) fimbria of the fallopian tube
(B) uterine fundus
(C) round ligament
(D) uterorectal pouch of Douglas
(E) uterosacral ligament

27. Which of the following statements regarding the female urethra is FALSE?
(A) The urethra is a hollow, multi-layered tube 2.5 to 5 cm long, connecting the bladder with the outside world
(B) The urethral-vesical junction is located at the level of the mid-trigone
(C) There is no true anatomic sphincter within the urethra
(D) The lower two-thirds of the urethra is contiguous with the anterior vaginal wall
(E) The intrinsic "increased" resting tone of the urethra provides part of the continence mechanism for urinary control

28. The nerve supply to the vulva may be characterized as being
(A) mediated via the pudendal nerve
(B) a complex arrangement of Meissner's corpuscles
(C) most dense of the prepuce of the clitoris
(D) derived mainly from the nerves of spinal cord segments S-2,3,4
(E) all the above

29. Which of the following statements regarding the innervation of the vagina is true?
(A) The upper two-thirds of the vagina is largely innervated by sympathetic fibers from the presacral nerve
(B) The vagina receives only parasympathetic fibers from the hypogastric plexus and pelvic splanchnic nerves. It is one of the few organs without sympathetic innervation
(C) The upper vagina has more touch and pain fibers than the lower vagina
(D) The vagina has more nerve endings per surface area than the clitoris, and therefore is probably the major organ involved in achievement of female orgasm

30. Branches of the internal iliac artery include all of the following EXCEPT the
(A) pudendal artery
(B) obturator artery
(C) superior gluteal artery
(D) ovarian artery
(E) inferior vesical artery

31. Which of the following statements regarding the vessels of the vagina is FALSE?
(A) The arterial supply of the vagina comes from the cervicovaginal branch of the uterine artery, inferior vesical, middle hemorrhoidal, and internal pudendal arteries

(B) Venous drainage of the vagina is accomplished through an extensive plexus rather than through well-defined channels
(C) The lymphatic drainage is such that the superior portion of the vagina (along with the cervix) drains into the external iliac nodes, the middle portion into the internal iliac nodes, and the lower third mainly into the superficial inguinal nodes and internal iliac nodes
(D) Being a relatively avascular organ, the vagina is predisposed to atrophic changes in older patients

32. Opens the abdomen through the linea alba and can be extended from symphysis pubis to xiphoid without dividing the muscles of the abdomen
(A) midline incision
(B) Pfannenstiel incision
(C) Maylard incision
(D) Cherny incision
(E) paramedian incision

33. A low transverse incision extended downward and through the anterior rectus fascia, with the anterior rectus sheath separated from the underlying muscles, from the pubis to near the level of the umbilicus
(A) midline incision
(B) Pfannenstiel incision
(C) Maylard incision
(D) Cherny incision
(E) paramedian incision

III. 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 hospital, labor & delivery ward, neonatal department with pregnants and newborns.

Tasks:

– Subgroup I - to perform an encounter (anamnesis taking, etc.) with standardized patient
– Subgroup II - to perform specific gynec.exam
– 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. If necessary, determine the cervical canal, uterine cavity length, presence of tumor in it, use:
   A. Cervical Biopsy
   B. colposcopy
   C. laparoscopy
   + D. Sounding the uterus
2. Benign tumor of epithelial tissue:
   A. fibroma
   B. Hidradenoma
   C. Lipoma
   + D. Papilloma
   E. Carcinoma
3. In '40 women during routine inspection at a bimanual examination revealed a tumor of the ovary. The disease is not accompanied by clinical manifestations. What additional methods are needed to confirm the diagnosis?
   + A. Ultrasound examination of the pelvis
   B. Functional diagnostic tests
   C. Pnevmoperitoneohrafiya
   D. Measurement of basal temperature
   E. Puncture the abdominal cavity through the posterior vaginal vault
4. Urhent received patient complaining of acute abdominal pain that arose during exercise, fever, general weakness. From history we know that during the medical examination revealed a tumor of the ovary left. Objectively: skin pale, pulse 120 beats / min., BP 90/60 mm Hg When bimanual and ultrasound in tumor appendages found. In Douglas space defined by a large amount of free fluid. What is the possible diagnosis?
   A. Polycystic ovarian disease
   B. Impaired tubal pregnancy
   C. Torsion stem tumor of the left ovary
   + D. Rupture of ovarian cysts
   E. Apoplexy left ovary
5. The patient '30 complaining of pain in the left iliac region, which began after the sudden movements 5 hours ago. Menses 3 weeks ago. Palpation stomach pain in the lower, more to the left. Symptom Pasternatskogo negative on both sides. The uterus is a normal size, anteflexio, displacement occurs when pain in the left appendages. Right appendages are not clearly palpable. To the left of uterine

tumor formation is determined sharply painful on palpation. The most likely diagnosis?

+ A. Torsion legs cystoma left ovary
B. Ectopic pregnancy
C. Left-sided renal colic
D. Necrosis subserous fibromatous unit
E. Apoplexy left ovary

6. In mothers 40 years with full-term pregnancy and izlivshimisya 8 hours ago amniotic fluid in the vaginal examination revealed myoma node, which comes from the front wall of the lower uterine segment, performing pelvic cavity. Above the head node is highly fetus. Made of delivery by caesarean section followed by hysterectomy without appendages. What was the determining factor in choosing the tactics of delivery and amount of surgery done?

A. Age of mothers
+ B. The localization of the tumor and its size
C. Burdened obstetric history
D. The total duration of anhydrous period
E. Term pregnancy

7. The patient '38 years with complaints of recurring pain in the abdomen, left over. Menstrual function is not impaired. In patients with chronic inflammation of the uterus, treated as outpatients. Uterus in antefleksii not enlarged, painless; right appendages are not defined, palpable left ovoidnoy forms of education 10 x 12 cm with a smooth surface texture tuhoelastichnoyi, movable, painless smooth; deep vault; mucus. What is the most likely diagnosis?

A. exacerbation of chronic salpingo of education left tuboovarialnogo
B. Uterine fibroids underbelly of a single node
+ C. Cystoma left ovary
D. Ovarian Cancer
E. endometrioid ovarian cysts left

8. The patient '38 years with complaints of recurring pain in the abdomen, left over. Menstrual function is not impaired. In patients with chronic inflammation of the uterus, treated as outpatients. Uterus in antefleksii not enlarged, painless; right appendages are not defined, palpable left ovoidnoy forms of education 10 x 12 cm with a smooth surface texture tuhoelasticheskoy, movable, painless smooth; deep vault; mucus. What research shows an outpatient basis?

A. Ultrasound of organs
B. X-ray or endoscopic research ¬ of the stomach and intestines
C. Extended colposcopy
+ D. All of the above

E. None of the above

9. The patient ' 38 years with the complaint ¬ we have to recurring pain in the abdomen, left over. Menstrual function is not impaired. In patients with chronic inflammation of the uterus, treated as outpatients. Uterus in antefleksii not enlarged, painless; right appendages are not defined, palpable left ovoidnoy forms of education 10 x 12 cm with a smooth poverhnioyu, tuhoelasticheskoy texture, movable, painless smooth; deep vault; mucus. Prenatal doctor's tactics?

A. Refer patients in Oncology Center to decide on a treatment strategy

B. Ask the sick in clinical records, recommended re-examination after 1 month

C. a course of antibiotic therapy in the absence of effect - hospitalization

D. urgently hospitalize the patient to perform surgery

+ E. Planned hospitalization for surgical treatment

10. Metrorrahiya is pathognomonic symptom at:

A. subserous uterine myoma

+ B. submucous uterine myoma

C. interstitial version of uterine fibroids

D. Inflammatory diseases genital

E. ovary apoplexy

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

Definition of cyst and tumor of ovary.

Ovarium is place, where mass lesions occur very often, and as a rule its growth is connected with physiological cysts or tumors.

Classification you can find in your text-books. Turn your attention to the functional cysts of ovarium: follicular cysts and corpus luteum cyst.

Follicul becomes cystic as an answer to the stimation of gonadotropin hornomes. If ovulation didn’t happen as a rule takes place atresia of follicle. Follicular cyst appears when ripe follicul doesn’t burst open and thus ovulation cannot take place. Such state slows follicular phase of the cycle and can lead to oligomenorrhea and secondary amenorrhea.

If the cyst in ovarium is lesser than 2 cm it is called cystic follicle, if it is bigger than 2 cm it is called follicular cyst.

As a rule there are no symptoms and follicular cysts involute by themselves during 2 months.

But follicular cysts can also grow up to 5 cm and more and cause mild stomach ache and interrupt menstrual cycle.

Apoplexia of follicular cyst is a severe complication that causes acute pain in abdomen and clinical picture of acute abdomen. The patient needs emergency surgery.

Corpus luteum cysts appear after ovulation if there were no regression of corpus luteum during lutein phase of the cycle. Clinical picture: menstruation delay from a couple of days to a couple of weeks, menstrual blotesque and pain in the low regions of abdomen. (here we should have differential diagnosis with gravidas extra uterine – ectopic pregnancy).

Corpus luteim cysts can also grow until spontaneous hemorrhage under cystic capsule takes place.

Diagnostics:

bimanual examination

ultrasound

DIAGNOSTICS

From anamnesis data diagnostic meaning have:

Indications on disease origin after pathologic (operative) delivery, artificial and involuntary abortions, which ended with endometrectomy, diagnostic endometrectomy, other intrauterine intervention or diathermo-coagulation of uterus neck;

Character of pain syndrome, increment of it before and during menstruations;

Unsuccessful long treatment of inflammatory diseases of internal genital organs;

Origin of increase cyclic pain syndrome in juvenile and girls, which appeared after menstruation start;

Abnormality of menstrual function by metrorrahia type, pre and post menstrual bloody discharges;

Sterility with pain syndrome, which is cyclic type.

Bimanual examination before and in first days after menstruations admit palpation of sacral-uterus ligament and retrouteral area. Some informative importance can have uterus and it uterine appendages increase, especially under expressed affection by endometriosis. Under palpation of sacral-uterus ligaments and retrouterine area.

Profundus endometriosis can be suspected under presence one of three signs: under revealing nodes which were palpated during gynaecological examination; - local sensitivity during gynaecological examination; - node palpation can be provide only under anesthesia.

Transvaginal and transabdomilan USD which is done with the next days before menstruation detected pathognomicsigns of internal endometriosis:

Appearance in myometrium separated parts with increased echogenicity;

Crenation and irregularity of the endometrium basal layer;

Dominant increase of frontal-back uterus size and non-central thickening one of its walls;

Presence in increased echogenicity zones anechogenic inclusions diameter 2-5mm and also liquid cavities diameter 6-33mm, which contain highly dispersed suspension;

Increased echogenicity in zone of frontal front of formation and reduction – in distant area;

Detection of closely situated raised and decreased echogenicity lines, which are situated perpendicularly to scan area;

Hysteroscopy is done on 5-7th day of menstruation cycle. Under abnormality – in any day before and after diagnostic curettage and let us determine next criteria: dilatation of gland excretory ducts; uneven, tuberosity of uterus cavity walls; endometriosis “goggles”, wide sinus tracts; multiple dilated gland ducts in all walls of uterus cavity.

Laparoscopic visualization of the pelvis is done at second part of the cycle, but not later than 3-4th day before menstruation. Patognomonic signs of endometriosis are presence of hemorrhagic exudates in abdominal cavity and revealing of foci on small pelvis peritoneum. Typical signs are black foci (“gunpowder burns”), white scars, red polypoid transparent or brown foci and also star-shaped damages, surrounded red-blue implants on ovaries or peritoneal surfaces of uterus, urine bladder or small intestine. Atypical endometriosis was described like pure vesicles, pink implants or white-erythematous areas on all abdominal cavity. During laparoscopy is recommended biopsy of any visible pathologic centers, further display of foci on picture-scheme and final verification of diagnosis under histological examination of biopsy material.

X-ray and MR-image can be used after USD for more exact diagnostic, differential diagnostic of endometrioid cysts from other tumor-like formations of

small pelvis organs. Under internal endometriosis are observed: increased sizes of uterus, mostly in frontal-back line, roundedness of its form and determination in myometrium anomaly zones of single or multiply foci with low intensity and different sizes. This method let us diagnose diffusive, node-like forms, and also stage of disease extension.

Hysterosalpingography can be done on 5-7th cycle day, under this can be observed increase of uterus sizes, contrasting substance situates beyond uterus cavity circuit, and shadows of heterotypes look like tubules, lacunas, diverticulum (internal endometriosis).

Colposcopy can be done by standard method in 2 phase of the cycle – foci were covered with multilayer flat epithelium blue-red color, have hemisphere form, in the place of outpouching of thin epithelium is situated foramen, from which flows dark blood.

Also examination of the patients with endometriosis must contain estimation of hormone level in blood serum and examination of immune status.

That’s why, endometriosis must be supposed in any patient with clinic triad: dysmenorrhea, dyspareunia and sterility. First choice diagnostic must be laparoscopy with histological examination of the tissue sampling.

TREATMENT

Treatment of endometriosis is presented with two variants - hormonal therapy and operative intervention. Combined treatment - operative and conservative, including hormonal, in various combinations is most justified. Medicamentous treatment, mainly, is based on hormonal therapy with use of a whole spectrum of sexual steroids, used independently or in combination, and directed, on the elimination of pain and an increase of fertility.

Age features of endometriosis, its maximal development during the reproductive age and frequent reduction of displays of the disease during postmenopause, and also a decrease of the semiology during pregnancy, allow to formulate some preconditions to hormonal treatment. The effects of sexual steroids on the tissue of the endometrium are presented in table 3. You should not forget the basic property of the cells of the endometrium: they can persist on the background of hyperestrogenia, but after the influence of gestagen the cells die, as though having executed their function.

Effects of sexual steroids on the tissue of the endometrium

According to the data from literature, the only valid indications for hormonal therapy are pelvic pains. Thus, the main principle should be treatment of the patient, instead

of the disease. In each case of the use of hormonal preparations, a small number of the patients, who do not react to the therapy, exist. The latter is explained by a distinct difference between the level steroids in the blood serum and the levels of steroid receptors, and also the degree of differentiation of tissue of the endometrioid foci. In the case of inefficiency of the given method of hormonal influence, there is reason to "switch" to another. In each case it is important to choose the suitable preparation having the minimum amount of side-effects, being the least dangerous to the patient and being inexpensive. Therapy of the future is oligonucleotide therapy during which there is an opportunity to switch off separate paracrine factors.

Data from some researches have shown that GRG-analogues, danasol and provera are equally effective. The complexity of choosing a specific hormonal preparation can consist of the fact that the marketing for some preparations is very aggressive. Gradually combined estrogen-gestagen preparations are excluded from the therapy of endometriosis, because high-dosed preparations are necessary, which can cause severe metabolic and system disorders.

Monotherapy with gestagen – norsteroids (norcolut) is quite often cancelled and are not used because of the side androgen effects. Medroxyprogesteron-acetate is widely used; in a dose of 100-200 mg (I injection) can cause amenorrhea for 3 months and more. The basic problem during treatment with Provera, depot-Provera - long restoration of the menstrual cycle. The mechanism of action of gestagen during endometriosis is insufficiently clear, therefore further supervision is required.

Serious side-effects frequently limit the use of danasol: increase in body weight, increase in the atherogenic index, decrease in the sizes of the mammary glands, hypertrophy of the clitoris, emotional lability, acne, congestions, lowering of the voice timbre, increase in appetite, spasms of the skeletal muscles, retaining liquid, headaches, and also atherosclerotic affection of the heart and liver damage.

With the appearance of analogues of GnRG, the spectrum of the therapeutic influence has expanded. Their one-time introduction stimulates the excretion of gonadotropic hormones of the hypophysis with subsequent increase of steroidogenesis in the ovaries. With repeated introduction of the preparations, the reaction to the stimulation gradually decreases, in 3-4 weeks it results in a weak secretion of gonadotropic hormones of the hypophysis with subsequent suppression of the formation of sexual hormones and inhibition of the function of tissue, viability which depends on the influence of sexual hormones.

Zoladex is 100 times more active than native GnRG, decapeptil - 36 times, buserelin - 50 times. These preparations are not prescribed orally, because they are easily broken down to inactivation in the gastrointestinal tract.

The majority of side-effects of agonists are caused by the development of hypoestrogen conditions: congestion, hyperhidrosis, headache, dryness of the vagina, mood changes, depression and so forth. During the duration of the treatment 6-8 months, a decrease in the density of bone tissue by 6-7% is marked. By limited data, it is possible to assume, that insignificant restoration occurs during 12 months after the treatment is finished. It is known, that the risk of breaks increases with the loss of bone weight of more than 10%.

Taking into account the presence of changes in the hormonal status and disorders of cerebral, vegetative, and emotional mechanisms in patients with endometriosis, it is necessary to individualize the choice of this or that sexual steroid by taking into consideration the following supervisions. Analogues of LH-RH increases the processes of internal synchronization in the CNS, reduces the tone and reactance of the sympathico-adrenal part of the VNS, both for the account of the neuromediator, and due to the hormonal parts. Gestrinon, danoval provide less expressed influences on the VNS, in some patients on the background of treatment some increase in the tone and reactance of the VNS is marked. These preparations provide activating influence on the CNS, reducing the processes of synchronization on the EEG. Therefore, with the inclination for hypotonia and bradycardia, the presence of mixed crisis or vagoinsular, unconscious conditions in a stuffy room or transport in the anamnesis, an increase in the activity of the synchronizing structures of the brain stem, the presence of paroxysmal activity and epileptoid signs or data on convulsive attacks in the past or epilepsy should not be prescribed analogues LH-RH; in these cases it is more preferable to use gestrinon or danoval. On the contrary, in patients with inclination for tachycardia or increase in BP, presence of EEG with attributes of medium-stem dysfunction, the use of analogues of LH-RH is more preferable, than gestrinon or danoval.

The positive about using sinarela is the simplicity of use of endonasal insufflations and the opportunity of fast cancellation, insignificant influence of the preparation on metabolism, absence of virilizing actions, and restoration of the menstrual cycle after fininshing the treatment. However absorption of the preparation varies individually. Besides, infection in the nasopharynx, colds and so forth can cause insignificant absorption of the preparation, as a result it should be cancelled.

For the syndrome of chronic pelvic pains, accompanying varicose veins of the pelvis, there is experience in the use of gestrinon 2,5 mg twice a week for 6 months. In parallel, patients receive disaggregation therapy: teonicol 0,15 x 3\day for 1st week, 2 tablets a day for the 2nd week, 1 tablet a day for the 3rd week, 2 tablets a day for the

4th week. In addition, aspirin at a dose of 250 mg in 48 hours for the 4 weeks is prescribed.

Today, regimes for additional use of replaceable hormone therapy (natural hormones) are being developed in case continuations treatment with agonists is needed. With this purpose, estradiol-valeriat (1 mg a day) or premarin (0,3-0,625 mg a day) for 3 weeks with addition gestagen for the last 10 days (acetomepregenol - 5 mg a day or provera - 5 mg a day) is recommended. This treatment can be prescribed 6-8 weeks after the beginning of treatment with agonists. There are also indications of a positive effect of adding only depot-Provera at 10 mg a day for 7 days after every 4-week course of treatment. This can promote a decrease in the frequency of vegetovascular symptoms and the prophylactics of osteoporosis.

Conservative medicamentous complex also includes preparations of calcium, ascorutin, iodine - containing preparations, hepato-protectors, immunomodulators.

Surgical treatment is presented by electrocoagulation and laser vaporization of heterotopia, cryoendoscopic influence, if indicated – laparotomy in this or that volume.

3.3. Requirements for the results of work.

1. Definition of cyst and tumor of ovary.
2. Cyst of Bartholin gland: clinics, diagnostics, complications, treatment.
3. Tumor-like masses in ovaries: clinics, diagnostics, complications, treatment, tactics of GP.
4. Benign tumors of ovaries (epithelial, tumors of genital cord stroma, lipid-cellular, germ cell tumors): clinics, diagnostics, complications, treatment, tactics of GP.
5. Benign tumors of uterus: clinics, diagnostics, complications, treatment, indications to surgical treatment, tactics of GP.
6. Endometriosis: etiology, pathogenesis, classification, clinics, diagnostics, modern treatment methods, tactics of GP, methods of rehabilitation of reproductive function.

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

Tests

1. If necessary, determine the cervical canal, uterine cavity length, presence of tumor in it, use:

A. Cervical Biopsy
B. colposcopy
C. laparoscopy
+ D. Sounding the uterus

2. Benign tumor of epithelial tissue:
A. fibroma
B. Hidradenoma
C. Lipoma
+ D. Papilloma
E. Carcinoma

3. In '40 women during routine inspection at a bimanual examination revealed a tumor of the ovary. The disease is not accompanied by clinical manifestations. What additional methods are needed to confirm the diagnosis?
+ A. Ultrasound examination of the pelvis
B. Functional diagnostic tests
C. Pnevmoperitoneohrafiya
D. Measurement of basal temperature
E. Puncture the abdominal cavity through the posterior vaginal vault

4. Urhent received patient complaining of acute abdominal pain that arose during exercise, fever, general weakness. From history we know that during the medical examination revealed a tumor of the ovary left. Objectively: skin pale, pulse 120 beats / min., BP 90/60 mm Hg When bimanual and ultrasound in tumor appendages found. In Douglas space defined by a large amount of free fluid. What is the possible diagnosis?
A. Polycystic ovarian disease
B. Impaired tubal pregnancy
C. Torsion stem tumor of the left ovary
+ D. Rupture of ovarian cysts
E. Apoplexy left ovary

5. The patient '30 complaining of pain in the left iliac region, which began after the sudden movements 5 hours ago. Menses 3 weeks ago. Palpation stomach pain in the lower, more to the left. Symptom Pasternatskogo negative on both sides. The uterus is a normal size, anteflexio, displacement occurs when pain in the left appendages. Right appendages are not clearly palpable. To the left of uterine tumor formation is determined sharply painful on palpation. The most likely diagnosis?
+ A. Torsion legs cystoma left ovary
B. Ectopic pregnancy
C. Left-sided renal colic
D. Necrosis subserous fibromatous unit
E. Apoplexy left ovary

6. In mothers 40 years with full-term pregnancy and izlivshimisya 8 hours ago amniotic fluid in the vaginal examination revealed myoma node, which comes from the front wall of the lower uterine segment, performing pelvic cavity. Above the head node is highly fetus. Made of delivery by caesarean section followed by hysterectomy without appendages. What was the determining factor in choosing the tactics of delivery and amount of surgery done?

A. Age of mothers
+ B. The localization of the tumor and its size
C. Burdened obstetric history
D. The total duration of anhydrous period
E. Term pregnancy

7. The patient '38 years with complaints of recurring pain in the abdomen, left over. Menstrual function is not impaired. In patients with chronic inflammation of the uterus, treated as outpatients. Uterus in antefleksii not enlarged, painless; right appendages are not defined, palpable left ovoidnoy forms of education 10 x 12 cm with a smooth surface texture tuhoelastichnoyi, movable, painless smooth; deep vault; mucus. What is the most likely diagnosis?

A. exacerbation of chronic salpingo of education left tuboovarialnogo
B. Uterine fibroids underbelly of a single node
+ C. Cystoma left ovary
D. Ovarian Cancer
E. endometrioid ovarian cysts left

8. The patient '38 years with complaints of recurring pain in the abdomen, left over. Menstrual function is not impaired. In patients with chronic inflammation of the uterus, treated as outpatients. Uterus in antefleksii not enlarged, painless; right appendages are not defined, palpable left ovoidnoy forms of education 10 x 12 cm with a smooth surface texture tuhoelasticheskoy, movable, painless smooth; deep vault; mucus. What research shows an outpatient basis?

A. Ultrasound of organs
B. X-ray or endoscopic research ¬ of the stomach and intestines
C. Extended colposcopy
+ D. All of the above
E. None of the above

9. The patient ' 38 years with the complaint ¬ we have to recurring pain in the abdomen, left over. Menstrual function is not impaired. In patients with chronic inflammation of the uterus, treated as outpatients. Uterus in antefleksii not enlarged, painless; right appendages are not defined, palpable left ovoidnoy forms of education 10 x 12 cm with a smooth poverhnioyu, tuhoelasticheskoy texture, movable, painless smooth; deep vault; mucus. Prenatal doctor's tactics?

A. Refer patients in Oncology Center to decide on a treatment strategy
B. Ask the sick in clinical records, recommended re-examination after 1 month
C. a course of antibiotic therapy in the absence of effect - hospitalization
D. urgently hospitalize the patient to perform surgery
+ E. Planned hospitalization for surgical treatment

10. Metrorrahiya is pathognomonic symptom at:

A. subserous uterine myoma
+ B. submucous uterine myoma

C. interstitial version of uterine fibroids
D. Inflammatory diseases genital
E. ovary apoplexy

IV. 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

1. **Basic**

1.Gynecology: a textbook (edited by BM Ventskivsky, GK Stepankovskaya, ME Yarotsky) .- K .: VSV Medicine, 2012.- 352 p.

2. Zaporozhan VM, Chaika VK, Markin LB Obstetrics and Gynecology (in 4 volumes): national textbook: 2013

3. Gynecology: a textbook in English (edit by I.B. Ventskivska) .- K .: Medicine, 2010.- 160 p.

4.Zaporozhan VM Operative gynecology: a textbook. - Odessa: Odessa Medical University, 2006. - 292 p.

5.Methods of contraception according to periods of life: a textbook.- K., 2013.- 255 p.

6.SM Pashchenko, GI Reznichenko, MA Voloshin Diagnosis and treatment of patients with dyshormonal breast diseases: Zaporizhzhya: Prosvita, 2011.-152 p.

7.Modern aspects of family planning: a textbook.- K., 2012.-307p.

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

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

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

2. **Methodical**

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

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

3. **Scientific**

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

INTERNET SOURCES:

- https://www.cochrane.org/
- https://www.ebcog.org/
- https://www.acog.org/
- https://www.uptodate.com
- https://online.lexi.com/
- https://www.ncbi.nlm.nih.gov/
- https://pubmed.ncbi.nlm.nih.gov/
- https://www.thelancet.com/
- https://www.rcog.org.uk/
- https://www.npwh.org/