

ENDOSCOPY IN GYNECOLOGY

***Methodical guidelines
for students' independent classroom work***

**Міністерство охорони здоров'я України
Харківський національний медичний університет**

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ЕНДОСКОПІЯ В ГІНЕКОЛОГІЇ

*Методичні вказівки
до самостійної аудиторної роботи
здобувачів вищої медичної освіти*

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Chapter: Obstetrics and gynecology

Subchapter: Endoscopy in gynecology

Topic 1. History of introduction of laparoscopy in gynecological practice.

Anatomy of the abdominal cavity. Anatomical aspects of gynecological endoscopy. Normative documents, orders of the Ministry of Health regulating the performance of endoscopic operations.

Material support of students' independent classroom work (SICW): textbooks, training manuals, methodical guidelines, clinical protocols, case histories, phantoms, dummies.

Purpose of SICW: acquiring knowledge and skills for solving professional tasks and providing planned and emergency medical care using endoscopic operative methods of treatment in obstetrics and gynecology, studying the anatomical aspects of gynecological endoscopy; to know the main legal documents regulating the performance of endoscopic operations.

Orientation basis for independent training

| No. | Task | Task guidelines |
|-----|---|---|
| 1 | Anatomical and physiological features of the female reproductive system | To study the anatomical and physiological features of the female body (structure of genital organs, neurohumoral regulation, menstrual cycle) |
| 2 | Topographic anatomy in gynecological endoscopy | To study the endoscopic topography of the internal female genital organs, blood supply and innervation |
| 3 | Protocols and orders of the Ministry of Health. Regulatory documentation | To study legal documents that regulate the provision of urgent and planned endoscopic surgery in gynecology |
| 4 | Historical stages of the development of endoscopic surgery | To study the history of the emergence of endoscopy, improvement of technical equipment and modern possibilities of endoscopic surgery in gynecology |

Written tests for students' self-control:

- The internal genital organs include all of the above, except:
A. Uterus. C. Ovary. E. Vagina.
B. Fallopian tubes. D. Bartholin's glands.
- The uterus is located in the pelvis as follows:
A. The body and cervix are located at an angle to each other
B. The body of the uterus is located in the narrow part of the pelvic cavity.
C. The vaginal part of the cervix and the external orifice are located below the ischial bone.
D. All options are correct.

3. The ovary is supported in the abdominal cavity by which of the following ligaments:
A. Round. B. Cardinal. C. Infundibulopelvic. D. Sacro-uterine.
4. Tissue surrounding the uterus (parametrium):
*A. Is located between the sheets of the broad uterine ligament.
 B. Is located at the level of the uterine cervix.
 C. Is located at the base of the broad uterine ligaments.
 E. All options are correct.*
5. The ovaries are supplied with blood by which of the following arteries:
*A. Uterine. C. Iliolumbar. E. Uterine and ovarian.
 B. Ovarian. D. Internal genital and ovarian.*
6. Uterine artery is a branch of:
*A. Aorta. D. External iliac artery.
 B. Common iliac artery. E. Iliolumbar artery.
 C. Internal iliac artery.*
7. The topographical anatomy of the uterine artery has the following characteristic features, except:
*A. It is divided into ascending and descending branches.
 B. At the first intersection with the ureter, it is located behind the ureter.
 C. Its vaginal branch anastomoses with the renal artery.
 D. Its vaginal branch goes along the anterior-lateral wall of the vagina on both sides.*
8. Which of the following structures are not incised during extirpation of the uterus and adnexa:
*A. Iliopelvic ligaments. D. Cardinal ligaments.
 B. Round ligaments. E. Uterine ends of tubes.
 C. Sacro-uterine ligaments.*

Keys

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------------|----------|----------|----------|----------|----------|----------|
| <i>D</i> | <i>A, C</i> | <i>C</i> | <i>E</i> | <i>E</i> | <i>C</i> | <i>C</i> | <i>E</i> |

Execution and presentation of individual tasks

I. Abstracts on the topic:

1. History of laparoscopy. Modern possibilities of laparoscopic operations.

2. Technical equipment of the endoscopic operating room. A step from the past to the future.

II. Report of case histories.

III. Carrying out role-playing games.

The evaluation of this type of SICW should be carried out taking into account the success indicators of the scientific research work, namely publications in scientific literature, reports at conferences, receiving awards at exhibitions or conferences, etc.

Mastering practical skills:

- to know the topographical anatomy of the pelvic organs;
- to know the anatomy of blood supply and innervation of the internal female genital organs;
- to know the neurohumoral regulation of the menstrual cycle;
- to have knowledge about anatomical and physiological changes in female genital organs in different age periods;
- to know the anatomy of adjacent organs (bladder, urethra, rectum);
- to know the main legal documents that regulate the provision of medical care with the use of endoscopic surgery;
- to have the skills of maintaining regulatory documentation.

Practical skills are developed with methodological support, the availability of simulators, training programs, as well as the participation of a teacher-consultant.

Preparation and writing of case histories, operation course summaries

For the effective organization of this type of ISW, it is necessary to provide the student with methodical guidelines for writing a case history. Such methodological guidelines should contain information on the following:

- general structure of the document to be drawn up by the student (case history, etc.);
- recommendations regarding the description of Locus morbi;
- instructions regarding the structure of the diagnosis (clinical or pathological);
- instructions for coding the disease according to the International Classification of Diseases (WHO, 10th revision).

Preparation for the credit test, grading test or exam

Since the credit, grading test or exam must be standardized and include control of scientific and theoretical training (test form) and control of practical training (list of practical skills), the student must use the above-mentioned material and methodological support, revise his knowledge of the topics of the chapter, identify deficiencies in the scope of training and to improve the level of knowledge through self-training. For self-control of students, it is recommended to develop a list of questions, test tasks, controlling computer programs and samples of license test tasks within Step 1 or Step 2.

The study of topics that are not included in classroom lesson plans is monitored during the credit test, grading test or exam. A comprehensive approach to the organization of students' independent non-classroom work (SINW) includes: providing students with a plan of SINW topics, methodical guidelines that guide their activities when performing independent training, which makes it possible to improve the quality of student learning.

Topic 2. Indications and contraindications for laparoscopy. Preoperative preparation and postoperative period. Justification of access during laparoscopy. Basics of safety when working with electro-surgical instruments

Material support of SICW: textbooks, training manuals, methodical guidelines, clinical protocols, case histories, phantoms, dummies.

Purpose of SICW: acquiring knowledge and skills in terms of solving professional problems and providing planned and emergency medical care using endoscopic operative methods of treatment in obstetrics and gynecology, the ability to analyze the gynecological situation, use basic and additional research methods, demonstrate skills and abilities in accordance with the educational qualification program.

Orientation basis for independent training

| No. | Task | Task guidelines |
|-----|--|--|
| 1 | Indications and contraindications for laparoscopy | To study the order of the Ministry of Health and determine the indications for planned and urgent endoscopic interventions in gynecological practice. To determine contraindications to laparoscopy. |
| 2 | Preparation of the patient for laparoscopy. Postoperative management | History taking. Clinical and laboratory research methods. Special examination of gynecological patients (bimanual, speculum, ultrasound). Filling out medical documentation. |
| 3 | General technique of laparoscopy | To study technical equipment and instruments of the laparoscopic operating room. To study the basics of safety when working with electro-surgical instruments. To study the types of anesthesia during endoscopic operations. Choice of laparoscopic access. |

Written tests for students' self-control

- What method is the most reliable for determining the obstruction of the fallopian tubes:
 - Culdocentesis.*
 - Colposcopy.*
 - Hysterosalpingography.*
 - Hysteroscopy.*
 - Ultrasound.*
- Endoscopic methods in gynecology include:
 - Colposcopy.*
 - Hysteroscopy.*
 - Laparoscopy.*
 - All of the above.*
 - None of the above*
- Indications to planned diagnostic laparoscopy include:
 - Suspected tumor.*
 - Differential diagnosis of acute abdomen.*
 - Infertility.*
 - Sterilization.*
 - Acute endometritis.*

4. Contra-indications to laparoscopy are:
A. Pulmonary heart failure in the stage of decompensation. D. Obesity.
B. Acute infectious diseases. E. Infertility.
C. Acute appendicitis.
5. Which of the examination methods is the most informative in the diagnosis of tubal-peritoneal infertility:
A. Chemopertubation. C. Transvaginal echography.
B. Hysterosalpingography. D. Laparoscopy with chromosalpingoscopy.
6. The diagnostic value of laparoscopy in gynecology is particularly high in all the listed conditions, except:
A. Progressive ectopic pregnancy. C. Ovarian tumors.
B. Myoma of the uterus. D. Uterine pregnancy.
7. In the diagnosis of acute abdomen it is irrelevant to perform:
A. Puncture of the vagina through the posterior vault. C. Percussion.
B. Bimanual study. D. Hysteroscopy.
8. The most informative method for diagnosing tubal pregnancy is:
A. Puncture of the abdominal cavity through the posterior vault.
B. Laparoscopy.
C. Radiography of abdominal organs.
D. Colposcopy.

Keys

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|----------|----------|----------|----------|----------|----------|----------|
| <i>C</i> | <i>D</i> | <i>C</i> | <i>A</i> | <i>E</i> | <i>D</i> | <i>D</i> | <i>B</i> |

Execution and presentation of individual tasks

I. Abstracts on the topic:

1. Modern methods of preparing gynecological patients for endoscopic operations. Prevention of postoperative complications.
2. Endoscopic operating room equipment. Technical shortcomings and ways to improve endoscopic equipment.

II. Report of case histories.

III. Carrying out role-playing games.

The evaluation of this type of SICW should be carried out taking into account the success indicators of the scientific research work, namely publications in scientific literature, reports at conferences, receiving awards at exhibitions or conferences, etc.

Mastering practical skills:

- technical equipment of the endoscopic operating room;
- basics of safety when working in the operating room;
- instruments for performing laparoscopy and hysteroscopy;
- choice of access method during laparoscopy;

- preparation of patients for endoscopic intervention;
- management of patients in the postoperative period;
- methods of analgesia in gynecological endoscopy;
- methods of preventing complications during endoscopic intervention;

Mastering practical skills requires methodological support, the availability of simulators, training programs, as well as the participation of a teacher-consultant.

Preparation and writing of the history of the disease, the course of the operation.

For the effective organization of this type of SRS, it is necessary to provide the student with methodical recommendations for writing a medical history. Such methodological recommendations should contain information about:

Preparation and writing case histories, operation course summaries

For the effective organization of this type of ISW, it is necessary to provide the student with methodical guidelines for writing a case history. Such methodological guidelines should contain information on the following:

- general structure of the document to be drawn up by the student (case history, etc.);
- recommendations regarding the description of Locus morbi;
- instructions regarding the structure of the diagnosis (clinical or pathological);
- instructions for coding the disease according to the International Classification of Diseases (WHO, 10th revision).

Preparation for the credit test, grading test or exam

Since the credit, grading test or exam must be standardized and include control of scientific and theoretical training (test form) and control of practical training (list of practical skills), the student must use the above-mentioned material and methodological support, revise his knowledge of the topics of the chapter, identify deficiencies in the scope of training and to improve the level of knowledge through self-training. For self-control of students, it is recommended to develop a list of questions, test tasks, controlling computer programs and samples of license test tasks within Step 1 or Step 2.

The study of topics that are not included in classroom lesson plans is monitored during the credit test, grading test or exam. A comprehensive approach to the organization of students' independent non-classroom work (SINW) includes: providing students with a plan of SINW topics, methodical guidelines that guide their activities when performing independent training, which makes it possible to improve the quality of student learning.

**Topic 3. Laparoscopic operations in acute abdomen syndrome in gynecology.
Laparoscopic operations during pregnancy. Indications and contra-indications**

Material support of SICW: textbooks, training manuals, methodical guidelines, clinical protocols, case histories, phantoms, dummies.

Purpose of SICW: acquiring knowledge and skills in terms of solving professional problems and providing emergency medical care using endoscopic surgical methods of treatment in obstetrics and gynecology, the ability to analyze the gynecological situation, use basic and additional research methods, demonstrate skills and abilities according to the educational and qualification program.

Orientation basis for independent training

| No. | Task | Task guidelines |
|-----|--|---|
| 1 | Acute abdomen in obstetrics and gynecology | To study the presentation, diagnosis, differential diagnosis, and management tactics of patients with acute abdomen symptoms |
| 2 | Operative endoscopy in gynecology | Laparoscopy in the diagnosis and treatment of gynecological diseases with the acute abdomen presentation (general technique, indications and contra-indications, complications of laparoscopy, types of laparoscopic interventions in ectopic pregnancy, apoplexy of the ovary, torsion of ovarian tumors, impaired nutrition of the leiomatous node) |
| 3 | Operative endoscopy in obstetric practice | To study the presentation, differential diagnosis and management tactics of pregnant women with an acute abdomen, indications and contraindications for laparoscopy |

Written tests for students' self-control

- Apoplexy of the ovary:
 - Torsion of the ovary.*
 - Necrosis of the ovary.*
 - Rupture of the ovarian membrane.*
 - Swelling of the ovary.*
- Most often, ovarian apoplexy occurs during:
 - The first phase of the menstrual cycle.*
 - The second phase of the menstrual cycle.*
 - In the middle of the cycle.*
 - Regardless of the phase.*
- The differential diagnosis of ectopic pregnancy is benefited by:
 - History taking.*
 - Pregnancy test.*
 - Laparoscopy.*
 - All options are correct.*
- Which form of ovarian apoplexy is an indication for an operative intervention:
 - Hemorrhagic.*
 - Painful.*
 - Not indicated.*

5. Ectopic pregnancy can be localized everywhere except:
A. Fallopian tube. B. Cervix. C. Abdominal cavity. D. Vagina.
6. Causes of ectopic pregnancy include all of the listed below, except:
A. Inflammatory processes in the adnexa of the uterus.
B. Endocrine disorders.
C. Increased trophoblast activity.
D. Anovulation.
7. In tubal pregnancy, the most unfavorable location of the fertilized ovum is in the region:
A. Interstitial. B. Isthmic. C. Ampullar. D. Fimbrial.
8. When the fallopian tube ruptures, pain radiating to the scapula and shoulder (phrenic symptom) is associated with irritation of:
A. Sciatic nerve. C. Diaphragmatic nerve.
B. Solar plexus. D. Parietal peritoneum.
9. Spasm-like pains during tubal pregnancy are typical for:
A. Tube rupture. C. Progressing pregnancy.
B. Tubal abortion. D. Not typical for ectopic pregnancy.
10. The best choice in progressive tubal pregnancy is:
A. Laparotomy. B. Laparoscopy. C. Hysteroscopy. D. Waiting tactics.

Keys:

| | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| C | C | D | A | D | D | A | C | B | B |

Execution and presentation of individual tasks

I. Abstracts on the topic:

1. Emergency conditions in the practice of an obstetrician-gynecologist. Endoscopic possibilities of diagnosis and treatment.

2. Modern approaches to endoscopic interventions during pregnancy.

II. Report of case histories.

III. Carrying out role-play games.

The evaluation of this type of SICW should be carried out taking into account the success indicators of the scientific research work, namely publications in scientific literature, reports at conferences, receiving awards at exhibitions or conferences, etc.

Mastering practical skills:

- preparation of patients for endoscopic intervention;
- management of patients in the postoperative period;
- methods of analgesia in gynecological endoscopy;
- methods of preventing complications during endoscopic intervention;
- laparoscopic diagnosis and treatment of ectopic pregnancy;
- laparoscopic diagnosis and treatment of ovarian apoplexy;

- the use of laparoscopy in the treatment of inflammatory diseases of the female genital organs;
- laparoscopic methods of intervention in case of disruption of the supply of the fibromatous node;
- laparoscopic operations during pregnancy;

To master practical skills, methodological support, availability of simulators, training programs, as well as the participation of a teacher-consultant are necessary.

Preparation and writing case histories, operation course summaries

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Topic 4. Laparoscopic operations in the treatment of benign tumors of the uterine adnexa. Reconstructive operations for tubal-peritoneal infertility

Material support for CICW: textbooks, training manuals, methodical guidelines, clinical protocols, case histories, phantoms, dummies.

Purpose of SICW: acquiring knowledge and skills in terms of solving professional problems and providing medical care for benign tumors of uterine adnexa, tubal-peritoneal infertility with the use of endoscopic surgical methods of treatment, the ability to analyze the gynecological situation, use basic and additional research methods, demonstrate skills and abilities in accordance with educational and qualification programs.

Orientation basis for independent training

| No | Task | Task guidelines |
|----|--|--|
| 1 | Benign tumors of uterine adnexa. | To study the presentation, diagnosis, differential diagnosis, and management tactics of patients with benign tumors of uterine adnexa |
| 2 | Operative endoscopy for benign ovarian tumors. | Laparoscopy in the diagnosis and treatment of benign diseases of the uterine adnexa (general technique, indications and contra-indications, complications of laparoscopy, types of laparoscopic interventions for benign formations of tumors of uterine adnexa) |
| 3 | Operative endoscopy in infertility. | To study the presentation, differential diagnosis and management tactics of patients with infertility, indications for laparoscopy, reconstructive operations on fallopian tubes |

Written tests for students' self-control

- Benign tumor is characterized by the following signs:
 - Excessive pathological growth of tissues.*
 - Distant metastases.*
 - Growth with compression of adjacent tissues.*
 - A and C are correct.*
- The main reasons for the increase in the incidence of ovarian tumors are:
 - The influence of the environment.*
 - Nutrition.*
 - Genetic predisposition.*
 - All options are correct.*
- The peak incidence of ovarian neoplasms occurs in the following periods of a woman's life:
 - Prepubescent period.*
 - Reproductive period.*
 - Age does not matter.*
 - A woman's age periods are associated with an increase in gonadotropins.*

4. Which of the listed tumors are serous?
 A. Adenofibroma. C. Papillary cystadenoma.
 B. Adenocarcinoma. D. All options are correct.
5. Which group of ovarian tumors do fibroids belong to?
 A. Serous. C. Granulosa-stromal-cellular.
 B. Germinal. D. Malignant.
6. Which of the listed symptoms are most characteristic of benign ovarian tumors?
 A. Abdominal pains. C. A neoplasm in the abdomen.
 B. Ascites. D. An increase in the volume of the abdomen.
 E. Correct options are A, C and D.
7. What methods of study are used to diagnose benign ovarian tumors?
 A. Bimanual study. D. Cytological study.
 B. Colposcopy. E. Puncture of the posterior vault of the vagina.
 C. Ultrasound examination.
8. What does the anatomical pedicle of the ovary include?
 A. Infundibulopelvic ligament of the ovary. C. Mesovarium.
 B. Proper ligament of the ovary. D. Wide uterine ligament.
9. What does the surgical pedicle of an ovarian cyst include?
 A. Mesovarium. C. Proper ligament of the ovary.
 B. Fallopian tube. D. Infundibulopelvic ligament.
10. What symptoms are most typical for twisting the pedicle of an ovarian cyst?
 A. Sudden onset. C. Repeated vomiting.
 B. Severe paroxysmal pain. D. All options are correct.

Keys:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|-------|---------|----|
| D | D | C | D | C | E | A | A,B,C | A,B,C,D | D |

Execution and presentation of individual tasks.

I. Abstracts on the topic:

1. Endoscopic possibilities of diagnosis and treatment of benign ovarian tumors.

2. Modern approaches of endoscopic interventions in the diagnosis of infertility. Reconstructive and plastic surgery for tubal-peritoneal infertility.

II. Report of case histories.

III. Carrying out role-play games.

The evaluation of this type of SICW should be carried out taking into account the success indicators of the scientific research work, namely publications in scientific literature, reports at conferences, receiving awards at exhibitions or conferences, etc.

Mastering practical skills:

- preparation of patients for endoscopic intervention;
- management of patients in the postoperative period;
- methods of analgesia in gynecological endoscopy;
- methods of prevention of complications during endoscopic intervention;
- laparoscopic diagnosis and treatment of benign ovarian tumors;
- laparoscopic diagnosis and treatment of tubal-peritoneal infertility;
- anti-recurrence tactics of managing patients after reconstructive operations on uterine adnexa.

To master practical skills, methodological support, the availability of simulators, training programs, as well as the participation of a teacher-consultant are necessary.

5. Preparation and writing case histories, operation course summaries

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Preparation for the credit test, grading test or exam

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Topic 5. Laparoscopic operations for benign uterine tumors. Indications and features of hysterectomy

Material support of SICW: textbooks, training manuals, methodical guidelines, clinical protocols, case histories, phantoms, dummies.

Purpose of SICW: Myoma of the uterus ranks high among benign tumors of the female genital organs. The methods of conservative and surgical treatment of this abnormality have expanded significantly. The introduction of endoscopic methods (laparoscopy, hysteroscopy) made it possible to develop modern approaches to the treatment of patients with uterine fibroids.

Orientation basis for independent training

| No | Task | Task guidelines |
|----|---|---|
| 1 | Benign uterine tumors | To study the presentation, classification, diagnosis and differential diagnosis of benign uterine tumors |
| 2 | Conservative methods of treatment of fibroids | Hormonal treatment of uterine fibroids, groups of drugs and their mechanism of action. Non-hormonal symptomatic treatment methods |
| 3 | Operative endoscopy in the treatment of benign tumors of the uterus | Organ-preserving endoscopic operations. Radical operations with laparoscopic access |

Written tests for students' self-control

1. What benign uterine tumors do you know?
 - A. *Myoma, endometrial polyps.*
 - B. *Leiomyoma, lipoma.*
 - C. *Hemangioma, fibromyoma, chondroma.*
 - D. *Fibroma, myoma, adenoma.*
2. A subserous fibromatous node of the uterus is located:
 - A. *In the cervix.*
 - B. *In the thickness of the muscle layer.*
 - C. *Under the endometrium.*
 - D. *Under the serous membrane of the uterus.*
3. An intramural fibromatous node of the uterus is located:
 - A. *Under the serous membrane of the uterus.*
 - B. *In the thickness of the muscle layer.*
 - C. *Under the mucous membrane of the uterus.*
 - D. *In the uterine cavity.*
4. A submucosal fibromatous node of the uterus is located:
 - A. *Under the mucous membrane of the uterus.*
 - B. *In the thickness of the muscle layer.*
 - C. *Under the serous membrane of the uterus.*
 - D. *In the interligamentous space.*

5. Clinical manifestations of uterine myoma depend on:
- Number of births and abortions.*
 - Advantages in the structure of a tumor of fibrous or muscle tissue.*
 - Menstrual function.*
 - Location of tumor nodes, their size, direction of growth and the presence of secondary changes in them.*
6. What does the amount of surgical intervention for uterine fibroids depend on?
- The age of the patient, anatomical location of tumor nodes, their size, total number.*
 - The patient's age, clinical manifestations of the disease.*
 - The size of the tumor, accompanying diseases, the number of pregnancies.*
7. A 32-year-old woman presented to the women's consultation with long and heavy menstruation for six months, pulling pain in the lower abdomen, weakness. During a gynecological examination, the body of the uterus is enlarged to 11-12 weeks of pregnancy, is dense, mobile and painless. Blood test findings: Hb = 90 g/l. What abnormality can be suspected?
- Cancer of the uterine body*
 - Myoma of the uterus, posthemorrhagic anemia.*
 - Pregnancy.*
 - Cystoma of the ovary.*
 - Dysfunctional uterine bleeding.*
8. A 57-year-old female patient was hospitalized in the gynecology department for surgical treatment for submucous uterine fibroids, grade I anemia. On vaginal examination: the cervix is eroded, the body of the uterus is enlarged up to 8–9 weeks of pregnancy, dense, the adnexa on both sides are unchanged, the discharge is mucous. What optimal volume of the operation is indicated?
- Supravaginal amputation of the uterus with adnexa.*
 - Supravaginal amputation of the uterus without adnexa.*
 - Conservative myomectomy.*
 - Defundation of the uterus.*
 - Extirpation of the uterus with adnexa.*
9. A patient presents with aching pain in the lower abdomen, painful menstruation. There were 2 abortions in the history, there was no childbirth. On examination: the skin is pale, the abdomen is soft, not painful, a tumor-like formation is palpable above the pubis. On bimanual examination: the body of the uterus is enlarged up to 14 weeks of pregnancy, with an uneven surface, dense, mobile. The adnexa are not palpable. What is the most likely diagnosis?
- Pregnancy.*
 - Cystoma of the ovary.*
 - Nodular fibromyoma of the uterus.*
 - Endometriosis.*
 - Kidney tumor.*

10. A 23-year-old patient with primary infertility was admitted to the gynecology department for surgical treatment for subserous uterine myoma. What is the optimal amount of surgical intervention to be performed in this case?

- A. *Conservative myomectomy.*
- B. *Hysterectomy.*
- C. *Defundation of the uterus.*
- D. *Supravaginal amputation of the uterus without adnexa.*
- E. *Supravaginal amputation of the uterus with biopsy of the ovaries.*

Keys:

| | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <i>A</i> | <i>D</i> | <i>B</i> | <i>A</i> | <i>D</i> | <i>A</i> | <i>B</i> | <i>E</i> | <i>C</i> | <i>A</i> |

Execution and presentation of individual tasks.

I. Abstracts on the topic:

- 1. Endoscopic possibilities of diagnosis and treatment of uterine fibroids.
- 2. Modern approaches to conservative treatment of benign uterine tumors.

II. Report of case histories.

III. Carrying out role-play games.

The evaluation of this type of SICW should be carried out taking into account the success indicators of the scientific research work, namely publications in scientific literature, reports at conferences, receiving awards at exhibitions or conferences, etc.

Mastering practical skills:

- preparation of patients for endoscopic intervention;
- management of patients in the postoperative period;
- methods of analgesia in gynecological endoscopy;
- methods of preventing complications during endoscopic intervention;
- methods of conservative treatment of uterine fibroids;
- laparoscopic tactics of organ-sparing operations for benign tumors of the uterus;
- laparoscopic tactics of radical operations for uterine fibroids;
- anti-recurrence management tactics of patients after organ-preserving operations for uterine fibroids.

To master practical skills, methodological support, the availability of simulators, training programs, as well as the participation of a teacher-consultant are necessary.

Preparation and writing case histories, operation course summaries

For the effective organization of this type of ISW, it is necessary to provide the student with methodical guidelines for writing a case history. Such methodological guidelines should contain information on the following:

- general structure of the document to be drawn up by the student (case history, etc.);
- recommendations regarding the description of Locus morbi;

- instructions regarding the structure of the diagnosis (clinical or pathological);
- instructions for coding the disease according to the International Classification of Diseases (WHO, 10th revision).

Preparation for the credit test, grading test or exam

Since the credit, grading test or exam must be standardized and include control of scientific and theoretical training (test form) and control of practical training (list of practical skills), the student must use the above-mentioned material and methodological support, revise his knowledge of the topics of the chapter, identify deficiencies in the scope of training and to improve the level of knowledge through self-training. For self-control of students, it is recommended to develop a list of questions, test tasks, controlling computer programs and samples of license test tasks within Step 1 or Step 2.

The study of topics that are not included in classroom lesson plans is monitored during the credit test, grading test or exam. A comprehensive approach to the organization of students' independent non-classroom work (SINW) includes: providing students with a plan of SINW topics, methodical guidelines that guide their activities when performing independent training, which makes it possible to improve the quality of student learning.

Topic 6. Hysteroscopy. Indications and contra-indications. Manipulation technique.

Material support of SICW: textbooks, training manuals, methodical guidelines, clinical protocols, case histories, phantoms, dummies.

Purpose of SICW: acquiring knowledge and skills in terms of solving professional tasks and providing planned and emergency medical care using hysteroscopic methods of treatment in gynecology, the ability to analyze the gynecological situation, use basic and additional research methods, demonstrate skills and abilities according to the educational and qualification program.

Orientation basis for independent training

| No. | Task | Task guidelines |
|-----|--|--|
| 1 | Anatomical and physiological features of the female reproductive system | To study the anatomical and physiological features of the female body (structure of genital organs, neurohumoral regulation, menstrual cycle) |
| 2 | Diagnosis and differential diagnosis of diseases of the female reproductive system | Methods of examination of gynecological patients. Ultrasound anatomy of the pelvic organs. Diagnosis and treatment of intrauterine abnormalities |
| 3 | Technique of hysteroscopy and hysteroresectoscopy. | Hysteroscopy in the diagnosis and treatment of diseases of the female genital organs (equipment, instruments, hysteroscopy technique). Hysteroresectoscopy |

Written tests for students' self-control

- Hysteroscopy is:
 - Examination of the pelvic organs using an endoscope inserted through the posterior vault of the vagina*
 - Inspection of the uterine cavity using an endoscope inserted through the cervical canal*
 - Examination of the organs of the abdominal cavity using an endoscope inserted through the anterior abdominal wall*
 - All options are correct*
- Contra-indications for performing any hysteroscopy are:
 - Presence of large uterine fibroids.*
 - Confirmed endometrial and/or cervical cancer.*
 - Non-progressive pregnancy.*
 - All options are correct*
- Hysteroscope is:
 - The video signal processing unit and the camera head connected to it by a cable.*
 - Device for visualization of video information.*
 - An optical device inserted into the uterine cavity for its visualization.*
 - A device for lighting internal cavities.*

4. Electrosurgical apparatus is a device for:
 - A. *Receiving high-frequency electrical impulses.*
 - B. *Conversion of electricity into ultrasonic vibrations.*
 - C. *Bipolar electrocoagulation, which causes denaturation of collagen and elastin in tissues with the formation of a zone of coagulation necrosis, the cut of which is not accompanied by bleeding.*
 - D. *Conversion of light energy into thermal energy upon contact with biological fluids.*
5. Emergency indications for performing hysteroscopy in gynecological practice do not include:
 - A. *Disturbed uterine pregnancy.*
 - B. *Abnormal uterine bleeding.*
 - C. *The presence of submucosal myoma of the uterus.*
 - D. *Suspected uterine perforation.*
6. Routine hysteroscopic interventions include:
 - A. *Dissection of intrauterine synechiae.*
 - B. *Removal of a submucosal myomatous node.*
 - C. *Removal of a foreign body of the uterus.*
 - D. *All options are correct.*
7. Planned indications for hysteroscopy include:
 - A. *Abnormal uterine bleeding.*
 - B. *Infertility.*
 - C. *Control after hormone therapy.*
 - D. *Options A and B are correct.*
8. Hysteroscopic signs of endometrial cancer are:
 - A. *The presence of intrauterine adhesions.*
 - B. *The presence of papillary growths.*
 - C. *Rocky pattern of the endometrium.*
 - D. *All options are correct*
9. Hysteroscopic signs of adenomyosis are:
 - A. *The presence of intrauterine adhesions.*
 - B. *The presence of papillary growths.*
 - C. *Rocky pattern of the endometrium.*
 - D. *All options are correct*
10. Hysteroscopic signs of synechiae are:
 - A. *The presence of intrauterine adhesions.*
 - B. *The presence of papillary growths.*
 - C. *Rocky pattern of the endometrium.*
 - D. *All options are correct*

11. Hysteroscopy during the examination of patients with a violation of the menstrual cycle is carried out to:

- A. Determine the time of ovulation.
- B. Diagnose endometrial abnormality.
- C. Diagnose external genital endometriosis.
- D. Detect subserous leiomyoma of the uterus.
- E. Take an aspirate from the uterine cavity.

Keys:

| | | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| B | B | C | A | D | D | D | B | C | A | B |

Execution and presentation of individual tasks

I. Abstracts on the topic:

- 1. Modern possibilities of hysteroscopic interventions in the treatment of gynecological diseases.
- 2. Modern approaches of hysteroscopy in the diagnosis and treatment of infertility and at the stages of preparation for programs of assisted reproductive technologies.

II. Report of case histories.

III. Carrying out role-play games.

The evaluation of this type of SICW should be carried out taking into account the success indicators of the scientific research work, namely publications in scientific literature, reports at conferences, receiving awards at exhibitions or conferences, etc.

Mastering practical skills:

- position of the patient during hysteroscopy;
- operation field processing;
- diagnostic hysteroscopy technique (dilation of the cervical canal, insertion of the hysteroscope, connection of the endovideotelevision system);
- technique of performing operations: polypectomy, endometrial ablation, myomectomy, extraction of IUD fragments (on a phantom);
- preparation of patients for endoscopic intervention;
- management of patients in the postoperative period;
- methods of analgesia during hysteroscopy;
- methods of preventing complications during hysteroscopy.

To master practical skills, methodological support, the availability of simulators, training programs, as well as the participation of a teacher-consultant are necessary.

Preparation and writing case histories, operation course summaries

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Recommended literature

Basic literature

1. Daniel B. Jones Laparoscopic Surgery : Principles and Procedures. CRC Press, 2019. 616 p.
2. B. Ramesh, Pooja Sharma Dimri Textbook & Atlas of Laparoscopic Hysterectomy. Jaypee Brothers Medical Publishers, 2016. 240 p.
3. Ibrachim Alkatoutm, Liselotte Mettler Practical Manual for Laparoscopic & Hysteroscopic Gynecological Surgery. Jaypee Brothers Medical Publishers, 2019. 852 p.
4. Mishra RK Textbook of Laparoscopy for Surgeons and Gynecologists. 4th Edition. Jaypee Brothers Medical Publishers, 2022. 637 p.
5. Lozada, Y. A Review of Laparoscopic Salpingo-Oophorectomy: Technique and Perioperative Considerations / Y. Lozada, B. Bhagavath // J Minim Invasive Gynecol. 2017. Vol. 24. № 3. P. 364–370.

Additional literature (considering specialization)

1. Birch DW, Dang JT, Switzer NJ, et al. Heated insufflation with or without humidification for laparoscopic abdominal surgery. *Cochrane Database Syst Rev* 2016; 10:CD007821.
2. Celarier S, Monziols S, Célérier B, et al. Low-pressure versus standard pressure laparoscopic colorectal surgery (PAROS trial): a phase III randomized controlled trial. *Br J Surg* 2021; 108:998.
3. Kim WC, Kwon YS. Laparoendoscopic single-site surgery for exteriorization and cystectomy of an ovarian tumor during pregnancy. *J Minim Invasive Gynecol* 2010; 17:386.
4. Mukadder S, Zekine B, Erdogan KG, et al. Comparison of the proseal, supreme, and i-gel SAD in gynecological laparoscopic surgeries. *ScientificWorldJournal* 2015; 2015:634320.
5. Yoon SW, Kang H, Choi GJ, et al. Comparison of supraglottic airway devices in laparoscopic surgeries: A network meta-analysis. *J Clin Anesth* 2019; 55:52.
6. Shono A, Katayama N, Fujihara T, et al. Positive End-expiratory Pressure and Distribution of Ventilation in Pneumoperitoneum Combined with Steep Trendelenburg Position. *Anesthesiology* 2020; 132:476.
7. Lirk P, Thiry J, Bonnet MP, et al. Pain management after laparoscopic hysterectomy: systematic review of literature and PROSPECT recommendations. *Reg Anesth Pain Med* 2019; 44:425.

Навчальне видання

ЕНДОСКОПІЯ В ГІНЕКОЛОГІЇ

***Методичні вказівки
до самостійної аудиторної роботи
здобувачів вищої медичної освіти***

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