NEGMADJANOV B.B.
VALIEV SH.N.

COLLECTION OF TESTS AND SITUATIONAL CASES IN GYNECOLOGY

EDUCATIONAL MANUAL

SAMARKAND – 2025

MINISTRY OF HEALTH OF THE REPUBLIC OF UZBEKISTAN
SAMARKAND STATE MEDICAL UNIVERSITY

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UO'K: 618.2(075.8)
KBK: 57.16ya73
N: 41

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This educational manual has been developed in accordance with the academic curriculum and is intended for students of higher medical institutions. It incorporates contemporary scientific advancements while also considering the climatic and social conditions of our country.

The manual covers 11 fundamental topics in gynecology and includes both test questions and situational cases. At the end of the manual, answers to the test questions and solutions to the cases are provided, enabling students to independently assess their knowledge.

The collection encompasses key aspects of gynecology, featuring a variety of test formats and case-based clinical scenarios. This approach not only strengthens theoretical knowledge but also fosters clinical reasoning skills and a comprehensive understanding of the subject. The inclusion of situational cases simulating real clinical scenarios is particularly valuable, as it equips students with essential diagnostic and decision-making skills in the face of medical uncertainty, a crucial aspect of practical medicine.

*This educational manual is designed for undergraduate (bachelor's), master's, and residency students of the **International Faculty** at higher medical institutions.*

This educational manual was recommended for publication by decision No. 10 of the Academic Council of SamMU dated May 28, 2025.

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SAMARQAND DAVLAT TIBBIYOT UNIVERSITETI ILMIY KOTIB

ISBN: 978-9910-8022-5-6

CONTENTS

I TOPIC ANATOMY OF FEMALE REPRODUCTIVE ORGANS. NORMAL MENSTRUAL CYCLE. REPRODUCTIVE ENDOCRINOLOGY OF GROWING FEMALE CHILD

Test questions:

1. Which of the following is NOT a component of the female reproductive system?

a) Ovaries
b) Uterus
c) Urethra
d) Fallopian tubes
e) Cervix

2. The primary function of the ovaries is to:

a) Produce oocytes and hormones
b) Facilitate implantation
c) Serve as a reservoir for sperm cells
d) Regulate menstrual blood flow
e) Support fetal development

3. Which layer of the uterus undergoes cyclic changes during the menstrual cycle?

a) Myometrium
b) Endometrium
c) Perimetrium
d) Serosa
e) Cervical epithelium

4. What is the primary function of the fallopian tubes?

a) Produce estrogen and progesterone
b) Transport the oocyte from the ovary to the uterus
c) Maintain the corpus luteum
d) Store oocytes
e) Support implantation

5. The broad ligament of the uterus serves to:

a) Attach the ovary to the uterine wall
b) Provide support to the uterus, fallopian tubes, and ovaries
c) Facilitate fetal movement
d) Secrete mucus for cervical protection
e) Stimulate follicle maturation

6. The primary site of fertilization is:

a) Cervix

b) Endometrium

c) Fallopian tube (ampulla)

d) Ovary

e) Myometrium

7. The luteal phase of the menstrual cycle is characterized by:

a) A peak in estrogen levels

b) Dominance of progesterone

c) The release of gonadotropin-releasing hormone

d) High levels of FSH

e) Regression of the corpus luteum

8. Which hormone triggers ovulation?

a) Estrogen

b) Progesterone

c) Follicle-stimulating hormone (FSH)

d) Luteinizing hormone (LH)

e) Oxytocin

9. What is the typical length of a normal menstrual cycle?

a) 14 days

b) 21 days

c) 28 days

d) 35 days

e) 40 days

10. The hormone responsible for endometrial proliferation during the menstrual cycle is:

a) Progesterone

b) Estrogen

c) Luteinizing hormone (LH)

d) Inhibin

e) Oxytocin

11. The corpus luteum primarily produces:

a) Estrogen

b) Progesterone

c) Follicle-stimulating hormone (FSH)

d) Oxytocin

e) Prolactin

12. The first menstrual period in a female is known as:

a) Menopause
b) Thelarche
c) Menarche
d) Amenorrhea
e) Dysmenorrhea

13. The main hormone responsible for the development of secondary sexual characteristics in females is:

a) Estrogen
b) Progesterone
c) Testosterone
d) Cortisol
e) Prolactin

14. What is the function of FSH in the menstrual cycle?

a) Triggers ovulation
b) Supports endometrial growth
c) Stimulates follicular development
d) Maintains pregnancy
e) Causes corpus luteum regression

15. Which gland secretes gonadotropin-releasing hormone (GnRH)?

a) Pituitary gland
b) Thyroid gland
c) Adrenal gland
d) Hypothalamus
e) Ovaries

16. Thelarche refers to:

a) First menstrual period
b) Breast development
c) Pubic hair growth
d) Growth spurt
e) Cessation of menstruation

17. The hormone inhibin is secreted by:

a) Hypothalamus
b) Corpus luteum
c) Granulosa cells
d) Pituitary gland
e) Endometrium

18. The most common site of implantation is:

a) Fallopian tube
b) Uterine endometrium
c) Cervix
d) Myometrium
e) Ovaries

19. During which phase of the menstrual cycle does ovulation occur?

a) Menstrual phase
b) Follicular phase
c) Ovulatory phase
d) Luteal phase
e) Post-menstrual phase

20. The predominant hormone in the luteal phase is:

a) Estrogen
b) Progesterone
c) Luteinizing hormone
d) Oxytocin
e) Follicle-stimulating hormone

21. The primary function of the cervix is to:

a) Produce hormones
b) Support pregnancy
c) Facilitate sperm entry and protect against infections
d) Store eggs
e) Prevent uterine contractions

22. What hormone prevents ovulation during pregnancy?

a) Follicle-stimulating hormone (FSH)
b) Luteinizing hormone (LH)
c) Progesterone
d) Estrogen
e) Prolactin

23. The structure that releases the mature oocyte is:

a) Endometrium
b) Fallopian tube
c) Corpus luteum
d) Graafian follicle
e) Cervix

24. What is the function of human chorionic gonadotropin (hCG) in pregnancy?

a) Stimulates ovulation
b) Supports corpus luteum function
c) Inhibits uterine contractions
d) Increases estrogen secretion
e) Regulates menstrual cycle

25. The primary hormone responsible for puberty initiation is:

a) GnRH
b) FSH
c) LH
d) Progesterone
e) Prolactin

26. The secondary sexual characteristic that appears first in most females is:

a) Menarche
b) Pubic hair growth
c) Breast development
d) Axillary hair growth
e) Widening of the hips

27. What is the major hormone responsible for maintaining pregnancy?

a) Estrogen
b) Progesterone
c) LH
d) FSH
e) Inhibin

28. The menstrual cycle is controlled by which gland?

a) Pituitary gland
b) Thyroid gland
c) Adrenal gland
d) Pancreas
e) Pineal gland

29. What happens to the corpus luteum if fertilization does not occur?

a) It enlarges
b) It secretes hCG
c) It degenerates into the corpus albicans
d) It continues producing progesterone
e) It stimulates ovulation

30. The hormone responsible for the growth and thickening of the endometrium is:

a) Estrogen
b) Progesterone
c) LH
d) FSH
e) Prolactin

Situational tasks:

Case 1

A **12-year-old girl** presents for a routine gynecological examination. She has no complaints.

History: Delivered via vaginal birth, first child in the family, normal growth and development, no somatic diseases.

Gynecological examination: External genitalia are normally developed for her age. The hymen is annular and intact.

Rectal examination: Uterus in anteposition, normal size for age, firm, and painless. No adnexal structures are detected.

Smear results: 4-5 leukocytes, coccal flora.

Question 1. Which test was used to analyze the smear?

a) Bacterioscopy
b) PCR
c) Bacteriological culture
d) ELISA
e) Immunofluorescence

Question 2. This smear result is most consistent with:

a) Vaginal dysbiosis
b) Nonspecific vaginitis
c) Sexually transmitted infection
d) Transitional flora
e) Normal for her age

Question 3. What is the likely cause of the coccal flora in this girl's vagina?

a) Perinatally acquired maternal flora
b) Pathogenic flora due to infection
c) Estrogen deficiency before puberty
d) Immune disorders
e) All of the above

Case 2

A **14-year-old girl** presents with concerns about **not having started menstruation** yet.

History: Breast development began at age 12, and pubic hair growth followed.

Physical examination: Normal height and weight, external genitalia normally developed.

Pelvic ultrasound: Uterus is hypoplastic, ovaries are normal.

Question 1. What is the most probable diagnosis?

a) Primary amenorrhea
b) Polycystic ovary syndrome (PCOS)
c) Turner syndrome
d) Secondary amenorrhea
e) Hypothyroidism

Question 2. What additional test is needed for further evaluation?

a) FSH and LH levels
b) Pelvic MRI
c) Karyotyping
d) Thyroid function tests
e) All of the above

Question 3. What is the most appropriate management for this patient?

a) Reassurance and observation
b) Estrogen therapy
c) GnRH agonists
d) Ovarian stimulation
e) Laparoscopy

Case 3

A **15-year-old girl** presents with irregular menstruation since menarche at age 13. She has acne and excessive hair growth.

History: Normal puberty development, no significant medical history.

Physical examination: BMI: 26 kg/m², mild hirsutism, oily skin, no signs of virilization.

Question 1. What is the most probable diagnosis?

a) Premature ovarian failure
b) Androgen insensitivity syndrome
c) Polycystic ovary syndrome (PCOS)
d) Hypothalamic amenorrhea
e) Cushing syndrome

Question 2. What is the first-line treatment for this patient?

a) Combined oral contraceptives (COCs)
b) Metformin
c) Anti-androgen therapy
d) Gonadotropin therapy
e) Lifestyle modification only

Question 3. What is the best diagnostic approach?

a) Transabdominal ultrasound
b) Serum testosterone and DHEAS levels
c) FSH and LH levels
d) Insulin resistance testing
e) All of the above

Case 4

A **17-year-old girl** reports missing her periods for the past 5 months. She previously had regular cycles.

History: No sexual activity, no significant weight loss, no excessive exercise.

Physical examination: BMI 22 kg/m², normal secondary sexual characteristics.

Question 1. What is the most likely cause of secondary amenorrhea in this case?

a) Pregnancy
b) Polycystic ovary syndrome
c) Hypothalamic dysfunction
d) Hyperprolactinemia
e) Thyroid dysfunction

Question 2. What test should be performed first?

a) Serum β-hCG
b) Thyroid function tests
c) Prolactin levels
d) FSH and LH levels
e) MRI of the pituitary gland

Question 3. What is the best treatment approach?

a) Wait for spontaneous resolution
b) Hormonal therapy
c) Dopamine agonists
d) Surgical intervention
e) Thyroid hormone replacement

Case 5

A **20-year-old woman** comes in for contraception counseling.

History: Married, gave birth 9 months ago, currently breastfeeding, had her first postpartum period.

Gynecological examination: No uterine abnormalities, normal adnexa, cervix with mild erosion.

Question 1. What is the most appropriate additional test?

a) Colposcopy
b) Cervical cytology
c) HPV PCR testing
d) Vaginal and urethral swab microscopy
e) All of the above

Question 2. If this patient has cervical intraepithelial neoplasia (CIN2) with HIV infection, what is the best treatment?

a) Systemic antiviral therapy for 10 days
b) Vaginal sanitation with chlorhexidine
c) Local immunomodulatory therapy
d) Cervical radiofrequency excision
e) Hysterectomy

Question 3. Which contraceptive method is best suited for her?

a) Calendar method
b) Progestin-only pills (Lactinet)
c) Combined oral contraceptives
d) Levonorgestrel IUD (Mirena)
e) Laparoscopic sterilization

Case 6

A **16-year-old girl** presents with severe lower abdominal pain and heavy menstrual bleeding during her last three menstrual cycles.

History: Menarche at 12 years, regular cycles, but dysmenorrhea has progressively worsened.

Physical examination: Normal secondary sexual characteristics, BMI 20 kg/m², no significant abnormalities on abdominal palpation.

Question 1. What is the most likely diagnosis?

a) Primary dysmenorrhea
b) Endometriosis
c) Uterine fibroids
d) Polycystic ovary syndrome
e) Adenomyosis

Question 2. What is the first-line treatment for this patient?

a) NSAIDs and hormonal therapy
b) Gonadotropin-releasing hormone (GnRH) agonists
c) Laparoscopy
d) Hysteroscopy
e) Surgical removal of lesions

Question 3. Which test is most useful for diagnosis?

a) Transabdominal ultrasound
b) Hysterosalpingography
c) Serum progesterone levels
d) MRI of the pelvis
e) Endometrial biopsy

Case 7

A **13-year-old girl** visits the doctor with her mother due to **primary amenorrhea**.

History: No history of chronic illnesses, normal breast development, but no menarche.

Physical examination: Normal height and weight, Tanner stage III breast development, pubic hair present.

Ultrasound findings: No visible uterus, normal ovaries.

Question 1. What is the most likely diagnosis?

a) Turner syndrome
b) Androgen insensitivity syndrome (AIS)
c) Müllerian agenesis (Mayer-Rokitansky-Küster-Hauser syndrome)
d) Hypothalamic amenorrhea
e) Polycystic ovary syndrome

Question 2. What is the next step in confirming the diagnosis?

a) Karyotyping
b) FSH and LH levels

c) Estrogen and progesterone challenge test
d) MRI of the pelvis
e) All of the above

Question 3. What is the best treatment approach?

a) Estrogen replacement therapy
b) Psychosocial counseling and neovaginal creation if necessary
c) GnRH agonists
d) Surgical removal of gonads
e) Hormonal contraception

Case 8

A **19-year-old woman** presents with **galactorrhea and irregular menstrual cycles**.

History: No history of pregnancy, denies use of medications, no headache or vision problems.

Physical examination: Normal BMI, normal secondary sexual characteristics.

Laboratory results: Elevated prolactin levels, normal thyroid function tests.

Question 1. What is the most likely cause?

a) Pituitary adenoma (prolactinoma)
b) Polycystic ovary syndrome
c) Primary hypothyroidism
d) Functional hypothalamic amenorrhea
e) Premature ovarian insufficiency

Question 2. What test should be performed next?

a) Brain MRI
b) FSH and LH levels
c) Serum testosterone
d) Pelvic ultrasound
e) Karyotyping

Question 3. What is the best treatment for this patient?

a) Dopamine agonists (e.g., cabergoline)
b) Combined oral contraceptives
c) Clomiphene citrate
d) Surgical removal of the pituitary gland
e) Estrogen replacement therapy

Case 9

A **22-year-old woman** presents with **mid-cycle pelvic pain** that has occurred consistently over the last 6 months.

History: Regular menstrual cycles, no history of sexually transmitted infections.

Physical examination: Normal BMI, no adnexal masses, mild tenderness in the lower abdomen.

Question 1. What is the most likely diagnosis?

a) Mittelschmerz
b) Ovarian cyst rupture
c) Endometriosis
d) Pelvic inflammatory disease
e) Appendicitis

Question 2. What is the best diagnostic test for this condition?

a) Pelvic ultrasound
b) Serum β-hCG test
c) MRI of the pelvis
d) Laparoscopy
e) CA-125 levels

Question 3. What is the most appropriate treatment?

a) Reassurance and NSAIDs
b) Antibiotics
c) Hormonal contraceptives
d) Laparoscopic excision
e) Surgical removal of the ovary

Case 10

A **25-year-old woman** presents with **pain during sexual intercourse (dyspareunia)** and chronic pelvic pain.

History: No history of STIs, has been trying to conceive for one year without success.

Physical examination: Normal BMI, tenderness on deep palpation of the pelvis.

Question 1. What is the most likely diagnosis?

a) Endometriosis
b) Pelvic inflammatory disease
c) Ovarian cyst

d) Adenomyosis
e) Fibroids

Question 2. What is the gold standard diagnostic method?

a) Laparoscopy
b) Transvaginal ultrasound
c) CA-125 test
d) MRI of the pelvis
e) Hysteroscopy

Question 3. What is the best first-line treatment?

a) NSAIDs and hormonal therapy
b) Laparoscopic excision of lesions
c) Hysterectomy
d) Clomiphene citrate
e) Antibiotics

II TOPIC EXAMINATION OF A GYNECOLOGICAL PATIENT [HISTORY, EXAMINATION, DIAGNOSTIC PROCEDURES, EXFOLIATIVE CYTOLOGY, PAP SMEAR, ENDOMETRIAL BIOPSY]. ENDOSCOPY IN GYNECOLOGY. HYSTEROSCOPY IN GYNECOLOGY IMAGING MODALITIES IN GYNECOLOGY [HSG, PLAIN RADIOGRAPHY, USG]. INDICATION, TECHNIQUES, COMPLICATIONS, CONTRA INDICATIONS. LASER IN GYNECOLOGY

Test questions:

1. What is the first step in evaluating a gynecological patient?

a) Endometrial biopsy
b) Hysteroscopy
c) Pelvic ultrasound
d) Detailed history-taking
e) Pap smear

2. Which of the following is NOT a component of a routine gynecological history?

a) Menstrual history
b) Family history
c) Surgical history
d) Medication history
e) Electrocardiogram findings

3. The purpose of a bimanual pelvic examination is to evaluate:

a) External genitalia
b) Vaginal pH
c) Ovarian size and tenderness
d) Cervical cytology
e) Menstrual cycle regularity

4. The Pap smear is primarily used to detect:

a) Uterine fibroids
b) Endometrial hyperplasia
c) Cervical dysplasia
d) Ovarian cysts
e) Pelvic inflammatory disease

5. A colposcopy is typically performed after:

a) Normal Pap smear

b) Abnormal Pap smear
c) Positive pregnancy test
d) Endometrial biopsy
e) Transvaginal ultrasound

6. What is the primary indication for an endometrial biopsy?

a) Ovarian cancer screening
b) Evaluation of postmenopausal bleeding
c) Detecting fallopian tube obstruction
d) Diagnosis of cervical cancer
e) Diagnosing ectopic pregnancy

7. The most common complication of hysteroscopy is:

a) Uterine perforation
b) Vaginal stenosis
c) Ovarian torsion
d) Endometriosis
e) Hyperstimulation syndrome

8. What is the main indication for hysterosalpingography (HSG)?

a) Diagnosis of endometrial hyperplasia
b) Evaluation of tubal patency
c) Diagnosis of polycystic ovary syndrome
d) Monitoring fetal well-being
e) Assessing ovarian reserve

9. Which imaging modality is most commonly used for evaluating ovarian cysts?

a) Hysteroscopy
b) Ultrasound
c) Plain radiography
d) MRI
e) X-ray

10. Which of the following is a contraindication to hysterosalpingography (HSG)?

a) Infertility
b) Active pelvic infection
c) Prior cesarean delivery
d) Regular menstruation
e) History of ovarian cysts

11. The best imaging modality to assess uterine fibroids is:

a) MRI

b) Hysteroscopy

c) Ultrasound

d) X-ray

e) PET scan

12. What is the primary diagnostic tool for detecting endometrial cancer?

a) Pap smear

b) Endometrial biopsy

c) Hysterosalpingography

d) Ultrasound

e) Laparoscopy

13. Which procedure is most commonly used for diagnosing cervical cancer?

a) Hysteroscopy

b) Pap smear

c) MRI

d) Ultrasound

e) D&C

14. Which of the following is an absolute contraindication to hysteroscopy?

a) Uterine fibroids

b) Active pelvic infection

c) Abnormal uterine bleeding

d) Suspected endometrial polyp

e) Recurrent miscarriages

15. What is the most common risk associated with endometrial biopsy?

a) Ovarian torsion

b) Infection

c) Vaginal prolapse

d) Ectopic pregnancy

e) Uterine rupture

16. The primary advantage of ultrasound in gynecology is:

a) High radiation exposure

b) Real-time imaging without radiation

c) Better soft tissue differentiation than MRI

d) The ability to visualize bone structures
e) Need for contrast medium

17. What is the most common indication for laser treatment in gynecology?

a) Cervical intraepithelial neoplasia (CIN)
b) Endometrial hyperplasia
c) Diagnosis of ovarian cancer
d) Tubal ligation
e) Management of fibroids

18. Which imaging modality provides the highest contrast for soft tissues?

a) Ultrasound
b) MRI
c) X-ray
d) HSG
e) CT scan

19. Which of the following is NOT a commonly used imaging modality in gynecology?

a) Ultrasound
b) Hysterosalpingography
c) X-ray
d) Mammography
e) PET scan

20. The main purpose of hysteroscopy is to:

a) Evaluate the uterine cavity
b) Examine ovarian pathology
c) Assess fallopian tube patency
d) Detect cervical dysplasia
e) Monitor pregnancy progress

21. The best method for detecting cervical dysplasia is:

a) Endometrial biopsy
b) Pap smear
c) Ultrasound
d) MRI
e) Hysterosalpingography

22. The most common complication of laser treatment in gynecology is:

a) Uterine perforation

b) Infection
c) Ovarian hyperstimulation
d) Postmenopausal bleeding
e) Amenorrhea

23. Which of the following procedures is NOT a part of gynecological examination?

a) Bimanual palpation
b) Colposcopy
c) Breast ultrasound
d) Speculum examination
e) Pap smear

24. The transformation zone of the cervix is highly susceptible to:

a) Cervical cancer
b) Uterine fibroids
c) Ovarian torsion
d) Endometrial hyperplasia
e) Bartholin's cyst

25. Which of the following is a diagnostic use of hysteroscopy?

a) Evaluation of intrauterine abnormalities
b) Ovarian cancer screening
c) Diagnosis of bacterial vaginosis
d) Detection of pelvic inflammatory disease
e) Hysterosalpingography

26. What is the gold standard for diagnosing endometrial pathology?

a) Hysteroscopy
b) MRI
c) Transvaginal ultrasound
d) Endometrial biopsy
e) Pap smear

27. Which of the following is an advantage of transvaginal ultrasound?

a) No exposure to radiation
b) Requires contrast material
c) Provides detailed imaging of bony structures
d) Cannot be used in pregnant women
e) Best for evaluating gastrointestinal diseases

28. The best imaging method to evaluate polycystic ovary syndrome (PCOS) is:

a) MRI
b) Hysteroscopy
c) Ultrasound
d) Endometrial biopsy
e) HSG

29. Which of the following is a major contraindication for hysteroscopy?

a) Postmenopausal bleeding
b) Pelvic inflammatory disease
c) Uterine fibroids
d) Infertility workup
e) Ovarian cysts

30. The purpose of exfoliative cytology is to:

a) Detect cervical abnormalities
b) Evaluate ovarian function
c) Diagnose endometrial polyps
d) Identify tubal occlusion
e) Determine uterine size

Situational tasks:

Case 1

A **42-year-old woman** presents with **postmenopausal bleeding** for the past two months.

History: Menopause at 50, no hormone replacement therapy, no significant medical history.

Gynecological examination: Normal external genitalia, cervix appears atrophic.

Pelvic ultrasound: Endometrial thickness **5 mm**.

Question 1. What is the next step in evaluation?

a) Endometrial biopsy
b) Pap smear
c) MRI of the pelvis
d) Laparoscopy
e) Cervical conization

Question 2. What is the most likely diagnosis?

a) Endometrial hyperplasia

b) Endometrial carcinoma
c) Atrophic endometritis
d) Uterine fibroids
e) Cervical polyp

Question 3. Which imaging modality is most useful in this case?

a) Hysteroscopy
b) Hysterosalpingography (HSG)
c) Plain radiography
d) Transvaginal ultrasound (USG)
e) CT scan

Case 2

A **30-year-old woman** presents with **chronic pelvic pain and dysmenorrhea** for the past year.

History: No previous surgeries, regular menstrual cycles, nulliparous.

Gynecological examination: Normal-sized uterus, tenderness on palpation of adnexal areas.

Transvaginal ultrasound: Homogeneous hypoechoic lesions in the ovaries, suggestive of endometriomas.

Question 1. What is the most likely diagnosis?

a) Uterine fibroids
b) Ovarian cyst
c) Endometriosis
d) Pelvic inflammatory disease
e) Polycystic ovary syndrome (PCOS)

Question 2. What is the best confirmatory diagnostic procedure?

a) MRI of the pelvis
b) Hysteroscopy
c) Laparoscopy
d) Pap smear
e) Endometrial biopsy

Question 3. What is the first-line treatment?

a) NSAIDs and combined oral contraceptives
b) Total hysterectomy
c) Hormonal replacement therapy
d) Antibiotics
e) Laparoscopic ovarian cystectomy

Case 3

A **35-year-old woman** presents with **recurrent early pregnancy loss** and **infertility** for the past three years.

History: Three previous miscarriages in the first trimester, no known chronic illnesses.

Gynecological examination: Normal-sized uterus, no adnexal tenderness.

Hysterosalpingography (HSG): Uterine cavity irregularities, suggestive of intrauterine adhesions.

Question 1. What is the most likely diagnosis?

a) Endometrial polyps
b) Uterine fibroids
c) Asherman's syndrome
d) Adenomyosis
e) Cervical stenosis

Question 2. What is the best diagnostic modality for confirming this diagnosis?

a) Transabdominal ultrasound
b) Pap smear
c) Hysteroscopy
d) CT scan
e) Laparoscopy

Question 3. What is the best treatment option?

a) Hysteroscopic adhesiolysis
b) Hysterectomy
c) Uterine artery embolization
d) Progesterone therapy
e) Cervical cerclage

Case 4

A **27-year-old woman** presents with **heavy menstrual bleeding and intermenstrual spotting**.

History: No pregnancies, cycles every 28 days, no known gynecological conditions.

Pap smear results: Atypical squamous cells of undetermined significance (ASC-US).

Colposcopy findings: Acetowhite epithelium with vascular changes.

Question 1. What is the next step in management?

a) Repeat Pap smear in 6 months

b) HPV DNA testing

c) Endometrial biopsy

d) Hysterosalpingography

e) Hysterectomy

Question 2. What is the best diagnostic procedure to evaluate cervical lesions?

a) Cervical biopsy

b) Hysteroscopy

c) MRI

d) Transabdominal ultrasound

e) Laparoscopy

Question 3. What treatment is recommended for cervical intraepithelial neoplasia (CIN 2-3)?

a) LEEP (Loop Electrosurgical Excision Procedure)

b) Laser ablation

c) Cryotherapy

d) Hysterectomy

e) Observation

Case 5

A **32-year-old woman** presents with **persistent post-coital bleeding** for six months.

History: No history of sexually transmitted infections, regular cycles, has two children.

Gynecological examination: Cervix appears **friable with contact bleeding**.

Pap smear: High-grade squamous intraepithelial lesion (HSIL).

Question 1. What is the most appropriate next step?

a) Immediate hysterectomy

b) Colposcopy with biopsy

c) HPV vaccination

d) Laparoscopic ovarian cystectomy

e) Cervical cerclage

Question 2. What is the most likely diagnosis?

a) Cervical dysplasia
b) Endometrial hyperplasia
c) Uterine fibroid
d) Chlamydia infection
e) Endometrial polyp

Question 3. Which treatment is most appropriate for HSIL confirmed by biopsy?

a) LEEP (Loop Electrosurgical Excision Procedure)
b) Laser therapy
c) Cryotherapy
d) Hysterectomy
e) Observation

Case 6

A **45-year-old woman** presents with **abnormal uterine bleeding and postmenopausal spotting**.

History: No significant medical history, menopause at age 50, no hormone replacement therapy.

Transvaginal ultrasound: Endometrial thickness **8 mm**.

Hysteroscopy: Suspicious endometrial lesions.

Question 1. What is the next step in diagnosis?

a) Pap smear
b) Endometrial biopsy
c) Laparoscopy
d) Colposcopy
e) MRI

Question 2. What is the most likely diagnosis?

a) Endometrial hyperplasia
b) Atrophic vaginitis
c) Endometrial carcinoma
d) Uterine fibroids
e) Cervical polyp

Question 3. What is the primary treatment option if endometrial carcinoma is confirmed?

a) Hysterectomy with bilateral salpingo-oophorectomy
b) Hormonal therapy
c) Uterine artery embolization
d) Laser ablation
e) Cervical conization

Case 7

A **29-year-old woman** presents with **primary infertility and dysmenorrhea**.

History: No pregnancies, irregular menstrual cycles, pain worsens during menstruation.

Gynecological examination: Mild uterine tenderness, normal-sized uterus.

Hysterosalpingography (HSG): Bilateral **tubal blockage**.

Question 1. What is the most likely diagnosis?

a) Endometriosis
b) Polycystic ovary syndrome (PCOS)
c) Pelvic inflammatory disease (PID)
d) Adenomyosis
e) Asherman's syndrome

Question 2. What is the best diagnostic procedure to confirm this condition?

a) Hysteroscopy
b) Laparoscopy with chromopertubation
c) Transabdominal ultrasound
d) Pap smear
e) MRI

Question 3. What is the most effective treatment for infertility in this patient?

a) Laparoscopic tubal recanalization
b) In vitro fertilization (IVF)
c) Clomiphene citrate induction
d) Hysteroscopic polypectomy
e) Antibiotic therapy

Case 8

A **50-year-old woman** presents with **postmenopausal bleeding and pelvic pain**.

History: Menopause at 47, smoker, previous Pap smears normal.

Gynecological examination: Enlarged uterus with irregular contours.

Transvaginal ultrasound: Endometrial mass with irregular vascularization.

Question 1. What is the most likely diagnosis?

a) Endometrial carcinoma
b) Cervical carcinoma
c) Uterine fibroids
d) Endometrial hyperplasia
e) Ovarian cancer

Question 2. What is the best diagnostic test for confirmation?

a) Endometrial biopsy
b) MRI
c) Hysteroscopy
d) CA-125 levels
e) Pap smear

Question 3. What is the best treatment approach for confirmed endometrial cancer?

a) Total hysterectomy with lymphadenectomy
b) Chemotherapy alone
c) Radiation therapy alone
d) Hormonal therapy
e) Uterine artery embolization

Case 9

A **26-year-old woman** presents with **lower abdominal pain, dyspareunia, and purulent vaginal discharge**.

History: Sexually active, multiple partners, no contraception use.

Gynecological examination: Cervical motion tenderness, adnexal tenderness bilaterally.

Ultrasound: Free fluid in the pelvic cavity, tubo-ovarian abscess.

Question 1. What is the most likely diagnosis?

a) Endometriosis
b) Pelvic inflammatory disease (PID)
c) Ovarian torsion
d) Ectopic pregnancy
e) Appendicitis

Question 2. What is the most appropriate initial treatment?

a) Broad-spectrum IV antibiotics
b) Hysteroscopy
c) Hormonal therapy

d) Emergency laparotomy
e) LEEP procedure

Question 3. When is surgical intervention required?

a) If the patient does not respond to antibiotics
b) If the patient has a positive pregnancy test
c) If there is minimal adnexal tenderness
d) If cervical smear results are normal
e) If there is no tubo-ovarian mass

Case 10

A **35-year-old woman** presents with **heavy menstrual bleeding and intermenstrual spotting.**

History: No significant past medical history, normal menstrual cycles until six months ago.

Hysteroscopy findings: Multiple endometrial polyps.

Question 1. What is the best management for this patient?

a) Hysteroscopic polypectomy
b) Hormonal therapy
c) Hysterectomy
d) Uterine artery embolization
e) Chemotherapy

Question 2. What is the most appropriate follow-up procedure after polypectomy?

a) Pap smear
b) Repeat hysteroscopy in 6 months
c) Endometrial biopsy
d) MRI of the pelvis
e) No follow-up needed

Question 3. What is the most likely outcome after polyp removal?

a) Resolution of symptoms
b) Increased risk of infertility
c) Recurrence in 1 month
d) Progression to malignancy
e) No change in symptoms

III TOPIC DISORDERS OF MENSTRUAL CYCLES. POLYMENORRHEA. METRORRHAGIA. MENORRHOGIA. AMENORRHOEA - PRIMARY & SECONDARY. AUB. PUBERTY MENORRHOGIA. ABNORMAL UTERINE BLEEDING IN FERTILE PERIOD. PERIMENOPAUSE & MENOPAUSE. DYSMENORRHEA. DEFINITION. SITES. PATHOGENESIS. CLINICAL. DIAGNOSIS. DIFFERENTIAL DIAGNOSIS. COMPLICATIONS. TREATMENT

Test questions:

1. What is the normal range of a menstrual cycle in a healthy woman?

a) 14–18 days
b) 21–35 days
c) 40–45 days
d) 50–60 days
e) 60–90 days

2. Which term describes menstrual cycles that occur at intervals shorter than 21 days?

a) Oligomenorrhea
b) Polymenorrhea
c) Amenorrhea
d) Dysmenorrhea
e) Metrorrhagia

3. What is the primary cause of primary amenorrhea?

a) Endometriosis
b) Polycystic ovarian syndrome (PCOS)
c) Müllerian agenesis
d) Cervical stenosis
e) Thyroid dysfunction

4. Secondary amenorrhea is defined as:

a) Absence of menstruation for more than 3 months in a woman with previously normal cycles
b) Menstrual cycles lasting less than 21 days
c) Heavy menstrual bleeding with clotting
d) Painful menstruation
e) Irregular bleeding between cycles

5. The most common cause of abnormal uterine bleeding (AUB) in reproductive-age women is:

a) Endometrial hyperplasia
b) Pregnancy-related complications
c) Polycystic ovarian syndrome (PCOS)
d) Uterine fibroids
e) Coagulation disorders

6. Dysfunctional uterine bleeding (DUB) is most commonly associated with:

a) Ovulatory dysfunction
b) Uterine fibroids
c) Endometrial carcinoma
d) Pelvic inflammatory disease (PID)
e) Endometriosis

7. Menorrhagia is best defined as:

a) Absence of menstruation for more than 6 months
b) Painful menstruation
c) Heavy menstrual bleeding (>80 mL per cycle)
d) Irregular menstrual cycles
e) Intermenstrual bleeding

8. Which of the following is NOT a cause of secondary amenorrhea?

a) Pregnancy
b) Pituitary adenoma
c) Turner syndrome
d) Polycystic ovarian syndrome (PCOS)
e) Hypothyroidism

9. What is the most common cause of puberty menorrhagia?

a) Endometrial carcinoma
b) Anovulatory cycles
c) Uterine fibroids
d) Cervical dysplasia
e) Chronic endometritis

10. The leading cause of abnormal uterine bleeding during perimenopause is:

a) Uterine atony
b) Endometrial atrophy
c) Hormonal imbalance

d) Cervical incompetence
e) Fallopian tube obstruction

11. Which of the following is NOT a common complication of menorrhagia?

a) Iron-deficiency anemia
b) Fatigue
c) Endometrial carcinoma
d) Hypotension
e) Tachycardia

12. The most common cause of secondary dysmenorrhea is:

a) Endometriosis
b) Primary ovarian insufficiency
c) Turner syndrome
d) Prolactinoma
e) Vaginal stenosis

13. Which of the following symptoms is characteristic of dysmenorrhea?

a) Severe lower abdominal pain during menstruation
b) Complete absence of menstrual cycles
c) Intermittent light bleeding throughout the month
d) Sudden cessation of menstruation
e) Mid-cycle ovulatory pain

14. AUB in the postmenopausal period requires:

a) No further evaluation if mild
b) Immediate endometrial biopsy
c) Increased iron supplementation
d) Estrogen therapy
e) Hysterosalpingography

15. Which of the following is a common hormonal treatment for dysmenorrhea?

a) Estrogen-only therapy
b) Progestin therapy
c) Levothyroxine
d) Tamoxifen
e) Antibiotics

16. Which condition is commonly associated with heavy and prolonged menstrual bleeding?

a) Polycystic ovarian syndrome (PCOS)

b) Asherman's syndrome
c) Von Willebrand disease
d) Ovarian torsion
e) Pelvic inflammatory disease (PID)

17. The most common site of pain in dysmenorrhea is:

a) Lower abdomen
b) Upper abdomen
c) Chest
d) Lower back
e) Left flank

18. AUB can be classified according to:

a) International Federation of Gynecology and Obstetrics (FIGO) classification
b) WHO staging system
c) NIH criteria
d) Glasgow Coma Scale
e) ROME criteria

19. What is the most effective diagnostic tool for endometrial pathology in AUB?

a) Transvaginal ultrasound
b) MRI
c) Pap smear
d) Hysteroscopy
e) Endometrial biopsy

20. Dysmenorrhea is associated with increased levels of which chemical mediator?

a) Estrogen
b) Prostaglandins
c) Progesterone
d) Serotonin
e) Dopamine

21. The presence of chronic anovulation and hyperandrogenism is characteristic of:

a) Turner syndrome
b) Polycystic ovarian syndrome (PCOS)
c) Primary ovarian insufficiency
d) Klinefelter syndrome
e) Müllerian agenesis

22. Perimenopause is best defined as:

a) The first year after menarche

b) The transition phase leading up to menopause

c) Sudden cessation of menstrual cycles

d) A reproductive disorder affecting young females

e) A period of continuous ovulation

23. What is the primary treatment for anovulatory AUB?

a) Antibiotics

b) Oral contraceptive pills

c) Radiation therapy

d) Uterine artery embolization

e) Hysterectomy

24. Which of the following is a treatment option for primary dysmenorrhea?

a) NSAIDs

b) Oral antibiotics

c) Estrogen injections

d) Thyroid hormone replacement

e) Corticosteroids

25. The first-line diagnostic test for an adolescent with primary amenorrhea is:

a) Endometrial biopsy

b) MRI of the pelvis

c) Hormonal panel including FSH, LH, and TSH

d) Colposcopy

e) Cervical smear

26. The best imaging modality for evaluating suspected endometriosis is:

a) Hysterosalpingography

b) Ultrasound

c) Laparoscopy

d) CT scan

e) X-ray

27. Which hormonal therapy is commonly used to treat perimenopausal symptoms?

a) Estrogen-progestin therapy

b) Androgen replacement therapy

c) High-dose corticosteroids

d) Thyroxine replacement
e) Tamoxifen

28. A woman presents with secondary amenorrhea and galactorrhea. What is the most likely cause?

a) Endometriosis
b) Prolactinoma
c) Polycystic ovarian syndrome
d) Uterine fibroids
e) Hypothyroidism

29. Which laboratory test is most useful in evaluating menopause?

a) Serum FSH level
b) Serum estrogen level
c) Thyroid function test
d) Prolactin level
e) Testosterone level

30. What is the most common non-hormonal treatment for heavy menstrual bleeding?

a) NSAIDs
b) Oral contraceptive pills
c) Progesterone therapy
d) Iron supplementation
e) Endometrial ablation

Situational tasks:

Case 1

A **16-year-old girl** presents with **heavy menstrual bleeding** lasting **10 days** with **clots and fatigue**.

History: Menarche at 13, regular cycles previously, no chronic illnesses, no sexual activity.

Physical examination: Pale conjunctiva, normal secondary sexual characteristics, BMI 18 kg/m².

Laboratory findings: Hemoglobin **9 g/dL**, Prothrombin time normal, FSH, LH, and TSH within normal range.

Question 1. What is the most likely diagnosis?

a) Puberty menorrhagia
b) Von Willebrand disease

c) Endometriosis
d) Ectopic pregnancy
e) Perimenopausal bleeding

Question 2. What is the first-line treatment?

a) Combined oral contraceptives (COCs)
b) Tranexamic acid and iron supplementation
c) Gonadotropin-releasing hormone (GnRH) agonists
d) Hysterectomy
e) Levonorgestrel intrauterine system (IUS)

Question 3. What additional tests should be performed?

a) Coagulation profile
b) Endometrial biopsy
c) Hysteroscopy
d) MRI of the pelvis
e) Laparoscopy

Case 2

A **28-year-old woman** presents with **irregular menstrual cycles and intermenstrual bleeding** for the past **six months**.

History: No pregnancies, no significant past medical history, sexually active.

Gynecological examination: Cervix appears normal, uterus is non-tender.

Ultrasound findings: Thickened endometrial lining, no masses.

Question 1. What is the most likely cause of her bleeding?

a) Polycystic ovary syndrome (PCOS)
b) Dysfunctional uterine bleeding
c) Endometrial carcinoma
d) Uterine fibroids
e) Pelvic inflammatory disease

Question 2. What is the best diagnostic test?

a) Endometrial biopsy
b) MRI of the pelvis
c) Pap smear
d) Hysterosalpingography
e) CA-125 test

Question 3. What is the first-line treatment for her condition?

a) Cyclic progestins

b) Hysterectomy
c) Gonadotropin-releasing hormone (GnRH) agonists
d) Immediate endometrial ablation
e) Laparoscopic myomectomy

Case 3

A **35-year-old woman** presents with **frequent menstrual cycles occurring every 18 days**, with **prolonged heavy bleeding**.

History: Two previous pregnancies, no contraceptive use, no known medical conditions.

Ultrasound findings: Small submucosal fibroid measuring **3 cm**.

Question 1. What is the most likely diagnosis?

a) Polymenorrhea
b) Primary amenorrhea
c) Perimenopausal bleeding
d) Endometriosis
e) Hypothyroidism

Question 2. What is the next step in management?

a) NSAIDs and hormonal therapy
b) Myomectomy
c) Uterine artery embolization
d) Hysterectomy
e) Endometrial ablation

Question 3. What is a common complication if left untreated?

a) Chronic anemia
b) Ovarian torsion
c) Endometrial cancer
d) Ectopic pregnancy
e) Infertility

Case 4

A **44-year-old woman** presents with **heavy menstrual bleeding and pelvic pressure**.

History: G4P4, cycles have become longer and heavier over the past year.

Ultrasound findings: Enlarged uterus with multiple fibroids.

Question 1. What is the most likely diagnosis?

a) Uterine fibroids

b) Endometriosis
c) Polycystic ovary syndrome (PCOS)
d) Endometrial carcinoma
e) Adenomyosis

Question 2. What is the most appropriate diagnostic step?

a) Endometrial biopsy
b) Hysteroscopy
c) Hysterosalpingography
d) Serum CA-125 levels
e) Colposcopy

Question 3. What is the best treatment option for symptomatic fibroids in a woman who wishes to retain fertility?

a) Myomectomy
b) Hysterectomy
c) Endometrial ablation
d) Uterine artery embolization
e) GnRH agonists

Case 5

A **51-year-old woman** presents with **vaginal bleeding two years after menopause**.

History: No hormone replacement therapy, no family history of cancer.

Pelvic ultrasound: Endometrial thickness of 6 mm.

Question 1. What is the next step in management?

a) Endometrial biopsy
b) Hysteroscopy
c) Transvaginal ultrasound
d) Pap smear
e) MRI

Question 2. What is the most likely cause of postmenopausal bleeding?

a) Endometrial hyperplasia
b) Atrophic endometrium
c) Endometrial cancer
d) Cervical polyp
e) Ovarian cyst

Question 3. What is the definitive treatment if endometrial carcinoma is confirmed?

a) Total abdominal hysterectomy with bilateral salpingo-oophorectomy

b) Radiation therapy

c) Hormonal therapy

d) Chemotherapy

e) Dilation and curettage (D&C)

Case 6

A **19-year-old woman** presents with **no menstrual periods since the age of 15**.

History: Normal breast development, no history of chronic diseases, normal BMI.

Gynecological examination: Normal external genitalia, no palpable uterus.

Ultrasound findings: Absent uterus, normal ovaries.

Question 1. What is the most likely diagnosis?

a) Turner syndrome

b) Polycystic ovary syndrome (PCOS)

c) Androgen insensitivity syndrome (AIS)

d) Müllerian agenesis (Mayer-Rokitansky-Küster-Hauser syndrome)

e) Hypothalamic amenorrhea

Question 2. What is the best diagnostic test to confirm the condition?

a) Karyotyping

b) FSH and LH levels

c) Hysteroscopy

d) Endometrial biopsy

e) MRI of the pelvis

Question 3. What is the primary management strategy?

a) Estrogen therapy

b) Surgical correction of the uterus

c) Psychosocial support and neovaginal creation if needed

d) Clomiphene citrate induction

e) Gonadotropin therapy

Case 7

A **36-year-old woman** presents with **irregular menstrual cycles and weight gain** over the last two years.

History: G2P2, no history of chronic conditions.

Gynecological examination: Hirsutism, BMI 29 kg/m², acanthosis nigricans on neck.

Ultrasound findings: Bilateral enlarged ovaries with multiple small follicles.

Question 1. What is the most likely diagnosis?

a) Premature ovarian failure
b) Endometrial hyperplasia
c) Polycystic ovary syndrome (PCOS)
d) Primary hypothyroidism
e) Cushing's syndrome

Question 2. What is the most appropriate first-line treatment?

a) Combined oral contraceptives (COCs)
b) Metformin
c) Clomiphene citrate
d) GnRH agonists
e) Laparoscopic ovarian drilling

Question 3. What is the primary long-term risk of this condition?

a) Ovarian torsion
b) Type 2 diabetes mellitus
c) Osteoporosis
d) Ectopic pregnancy
e) Cervical cancer

Case 8

A **22-year-old woman** presents with **sudden, severe lower abdominal pain during her menstrual period**.

History: Menarche at 13, regular cycles, progressively worsening dysmenorrhea.

Gynecological examination: No tenderness on bimanual palpation, no adnexal masses.

Ultrasound findings: Normal uterus and ovaries.

Question 1. What is the most likely diagnosis?

a) Primary dysmenorrhea
b) Endometriosis
c) Ovarian torsion
d) Pelvic inflammatory disease
e) Ectopic pregnancy

Question 2. What is the first-line treatment?

a) Nonsteroidal anti-inflammatory drugs (NSAIDs)
b) Hysterectomy
c) GnRH agonists
d) Laparoscopy
e) Progestin therapy

Question 3. What is the pathophysiology of this condition?

a) Increased endometrial prostaglandin production
b) Chronic pelvic inflammation
c) Excess estrogen production
d) Ovulation failure
e) Decreased progesterone secretion

Case 9

A **48-year-old woman** presents with **irregular menstrual cycles and night sweats** for the past year.

History: No history of chronic conditions, no previous hormone therapy.

Gynecological examination: Normal uterus and ovaries.

Question 1. What is the most likely diagnosis?

a) Perimenopause
b) Polycystic ovary syndrome (PCOS)
c) Hypothyroidism
d) Endometrial carcinoma
e) Primary ovarian insufficiency

Question 2. What is the best diagnostic test to confirm the condition?

a) FSH and LH levels
b) Endometrial biopsy
c) Pap smear
d) MRI of the pelvis
e) CA-125 test

Question 3. What is the recommended first-line treatment for her symptoms?

a) Hormone replacement therapy (HRT)
b) Gonadotropin therapy
c) Clomiphene citrate
d) Laparoscopic ovarian cystectomy
e) Immediate hysterectomy

Case 10

A **43-year-old woman** presents with **persistent intermenstrual spotting and prolonged menstrual cycles** over the past six months.

History: G3P3, no previous gynecological conditions.

Ultrasound findings: Endometrial thickness 15 mm.

Endometrial biopsy: Atypical endometrial hyperplasia.

Question 1. What is the best treatment option for this patient?

a) Hysterectomy
b) Progestin therapy
c) Endometrial ablation
d) Uterine artery embolization
e) Levonorgestrel intrauterine system (IUS)

Question 2. What is the most significant risk if left untreated?

a) Uterine fibroids
b) Endometrial carcinoma
c) Pelvic inflammatory disease
d) Ovarian cancer
e) Cervical dysplasia

Question 3. What is the best long-term management approach?

a) Annual endometrial biopsy
b) Laparoscopic ovarian drilling
c) Continuous estrogen therapy
d) Repeat Pap smears every 3 months
e) Immediate hysteroscopy

IV TOPIC UTERINE FIBROIDS. DEFINITION. SITES. PATHOGENESIS. CLINICAL. DIAGNOSIS. DIFFERENTIAL DIAGNOSIS. COMPLICATIONS. TREATMENT

Test questions:

1. What are uterine fibroids?
a) Malignant smooth muscle tumors of the uterus
b) Benign smooth muscle tumors of the uterus
c) Inflammatory lesions of the myometrium
d) Cystic degenerations in the endometrium
e) Congenital uterine anomalies

2. Which hormone primarily influences fibroid growth?
a) Testosterone
b) Oxytocin
c) Estrogen
d) Dopamine
e) Aldosterone

3. What is the most common site of uterine fibroids?
a) Endometrium
b) Cervix
c) Myometrium
d) Ovaries
e) Fallopian tubes

4. Which type of fibroid is most associated with abnormal uterine bleeding?
a) Intramural
b) Subserosal
c) Submucosal
d) Pedunculated
e) Cervical

5. Which factor is NOT a risk factor for uterine fibroids?
a) Early menarche
b) Obesity
c) Low parity
d) Smoking
e) High estrogen levels

6. The most common symptom of uterine fibroids is:

a) Postmenopausal bleeding
b) Heavy menstrual bleeding
c) Dyspareunia
d) Amenorrhea
e) Urinary retention

7. What is the best initial imaging modality for diagnosing fibroids?

a) Hysteroscopy
b) MRI
c) Transvaginal ultrasound
d) CT scan
e) PET scan

8. Which imaging modality provides the most detailed soft tissue evaluation of fibroids?

a) MRI
b) X-ray
c) Ultrasound
d) CT scan
e) Mammography

9. Subserosal fibroids are more likely to cause:

a) Heavy menstrual bleeding
b) Urinary symptoms due to compression
c) Infertility
d) Postmenopausal bleeding
e) Endometrial carcinoma

10. What is the best treatment option for a small, asymptomatic fibroid?

a) Hysterectomy
b) Myomectomy
c) Uterine artery embolization
d) Observation and follow-up
e) Endometrial ablation

11. Which type of fibroid is most likely to cause infertility?

a) Subserosal
b) Submucosal
c) Intramural
d) Pedunculated
e) Cervical

12. What is the most common complication of fibroids?

a) Ovarian torsion

b) Heavy menstrual bleeding and anemia

c) Uterine rupture

d) Malignant transformation

e) Pelvic inflammatory disease

13. Leiomyosarcoma is suspected when:

a) Fibroid growth is rapid in a postmenopausal woman

b) The fibroids are multiple and small

c) The patient has regular menstrual cycles

d) The fibroid is calcified

e) There is a history of endometriosis

14. Which of the following is the first-line medical therapy for symptomatic fibroids?

a) NSAIDs

b) GnRH agonists

c) Estrogen therapy

d) Tamoxifen

e) Progesterone receptor modulators

15. Which of the following is a minimally invasive procedure used for treating fibroids?

a) Myomectomy

b) Uterine artery embolization

c) Hysterectomy

d) Oophorectomy

e) Endometrial biopsy

16. The most definitive treatment for uterine fibroids is:

a) Hysterectomy

b) Uterine artery embolization

c) Myomectomy

d) Hormonal therapy

e) Endometrial ablation

17. What is a major contraindication for uterine artery embolization?

a) Symptomatic fibroids

b) Multiple small fibroids

c) Desire for future pregnancy

d) Heavy menstrual bleeding

e) Chronic pelvic pain

18. Which type of fibroid is least likely to cause symptoms?

a) Submucosal
b) Subserosal
c) Intramural
d) Cervical
e) Pedunculated

19. Fibroid growth is most commonly influenced by:

a) Cortisol
b) Estrogen and progesterone
c) Prolactin
d) Insulin
e) Parathyroid hormone

20. Which condition should be considered in the differential diagnosis of uterine fibroids?

a) Endometrial hyperplasia
b) Ovarian cancer
c) Adenomyosis
d) Cervical cancer
e) All of the above

21. What is the best method to confirm the diagnosis of fibroids?

a) Endometrial biopsy
b) Pelvic ultrasound
c) Cervical smear
d) Hysteroscopy
e) PET scan

22. What is a major potential complication of large fibroids in pregnancy?

a) Miscarriage
b) Ectopic pregnancy
c) Hydatidiform mole
d) Ovarian torsion
e) Cervical incompetence

23. What type of fibroid may cause urinary retention?

a) Intramural
b) Submucosal
c) Subserosal
d) Cervical
e) Pedunculated

24. The best imaging modality for mapping fibroids before surgery is:

a) Transvaginal ultrasound
b) MRI
c) Hysterosalpingography
d) PET scan
e) X-ray

25. What type of fibroid degeneration is most common in pregnancy?

a) Hyaline degeneration
b) Red degeneration
c) Myxoid degeneration
d) Cystic degeneration
e) Calcific degeneration

26. What is a common side effect of long-term GnRH agonist therapy?

a) Weight loss
b) Osteoporosis
c) Hyperthyroidism
d) Hyperprolactinemia
e) Hypoglycemia

27. Which surgical procedure preserves fertility in women with fibroids?

a) Myomectomy
b) Hysterectomy
c) Uterine artery embolization
d) Endometrial ablation
e) Oophorectomy

28. Which hormonal therapy is commonly used for reducing fibroid size?

a) GnRH agonists
b) Dopamine agonists
c) Estrogen therapy
d) Thyroid hormone replacement
e) Testosterone therapy

29. What is the relationship between menopause and fibroids?

a) Fibroids usually shrink after menopause
b) Fibroids grow rapidly after menopause

c) Fibroids always cause postmenopausal bleeding
d) Fibroids develop more frequently after menopause
e) Menopause increases the risk of fibroid malignancy

30. Which of the following is NOT a common treatment option for fibroids?

a) Myomectomy
b) Uterine artery embolization
c) Endometrial ablation
d) Radiation therapy
e) Hysterectomy

Situational tasks:

Case 1

A **36-year-old woman** presents with **heavy menstrual bleeding, pelvic pressure, and urinary frequency** for the past 6 months.

History: G3P2, no previous gynecological conditions.

Gynecological examination: Enlarged, irregularly shaped uterus.

Transvaginal ultrasound: Multiple intramural fibroids, the largest measuring 6 cm.

Question 1. What is the most likely diagnosis?

a) Adenomyosis
b) Endometrial carcinoma
c) Uterine fibroids
d) Polycystic ovary syndrome (PCOS)
e) Endometrial hyperplasia

Question 2. What is the best initial diagnostic test?

a) Hysteroscopy
b) MRI of the pelvis
c) Transvaginal ultrasound
d) Endometrial biopsy
e) Hysterosalpingography

Question 3. What is the most appropriate first-line treatment for this patient if she desires future fertility?

a) Myomectomy
b) Hysterectomy
c) GnRH agonists
d) Uterine artery embolization
e) Levonorgestrel intrauterine system (IUS)

Case 2

A **42-year-old woman** presents with **chronic pelvic pain and prolonged menstrual cycles**.

History: No history of pregnancies, BMI 30 kg/m².

Gynecological examination: Uterus enlarged, mobile, non-tender.

MRI findings: Submucosal fibroid measuring 4 cm, distorting the endometrial cavity.

Question 1. What is the best treatment option for this patient who wishes to conceive?

a) Hysterectomy
b) Myomectomy
c) Uterine artery embolization
d) GnRH agonists only
e) Progestin therapy

Question 2. What is a potential complication of untreated submucosal fibroids?

a) Ovarian torsion
b) Infertility
c) Endometrial cancer
d) Cervical dysplasia
e) Ectopic pregnancy

Question 3. Which imaging modality is most useful in preoperative planning for fibroid removal?

a) Transvaginal ultrasound
b) Hysterosalpingography
c) MRI of the pelvis
d) Hysteroscopy
e) CT scan

Case 3

A **50-year-old woman** presents with **postmenopausal bleeding** and an **enlarged uterus**.

History: Menopause at 48, no hormone replacement therapy.

Gynecological examination: Firm, irregular uterus.

Pelvic ultrasound: A 7 cm intramural fibroid with vascularization.

Question 1. What is the primary concern in this patient?

a) Endometrial hyperplasia
b) Leiomyosarcoma
c) Ovarian carcinoma
d) Cervical cancer
e) Adenomyosis

Question 2. What is the best next step in management?

a) Endometrial biopsy
b) Hysteroscopy
c) GnRH agonists
d) Hormonal therapy
e) Observation

Question 3. What is the definitive treatment for suspected malignancy?

a) Hysterectomy with bilateral salpingo-oophorectomy
b) Uterine artery embolization
c) Myomectomy
d) Hormonal therapy
e) MRI monitoring

Case 4

A **33-year-old woman** presents with **dysmenorrhea, menorrhagia, and an increasing abdominal mass**.

History: No prior pregnancies, normal BMI.

Gynecological examination: Uterus is **globular, tender, and symmetrically enlarged**.

MRI findings: Diffuse thickening of the myometrium with small cystic spaces.

Question 1. What is the most likely diagnosis?

a) Uterine fibroids
b) Endometriosis
c) Adenomyosis
d) Endometrial carcinoma
e) Ovarian cyst

Question 2. How does this condition differ from fibroids?

a) It originates from the myometrium itself
b) It causes irregular uterine enlargement
c) It is always malignant
d) It does not respond to hormonal therapy
e) It is usually asymptomatic

Question 3. What is the most effective treatment for symptom relief if the patient desires to preserve fertility?

a) NSAIDs and hormonal therapy
b) Hysterectomy
c) Uterine artery embolization
d) Endometrial ablation
e) Chemotherapy

Case 5

A **29-year-old woman** presents with **progressive lower abdominal discomfort and pressure symptoms**.

History: G2P2, history of cesarean section.

Ultrasound findings: A large 9 cm pedunculated fibroid.

Question 1. What complication is the patient at increased risk for?

a) Endometrial carcinoma
b) Ovarian torsion
c) Fibroid degeneration
d) Ectopic pregnancy
e) Tubal blockage

Question 2. What is the best treatment approach for a symptomatic pedunculated fibroid?

a) Laparoscopic myomectomy
b) Hysteroscopy
c) Uterine artery embolization
d) Observation
e) GnRH agonists

Question 3. Which medication can be used preoperatively to reduce fibroid size?

a) GnRH agonists
b) Estrogen therapy
c) Clomiphene citrate
d) Progesterone-only pills
e) NSAIDs

Case 6

A **40-year-old woman** presents with **chronic pelvic pain, menorrhagia, and a sensation of fullness in the lower abdomen.**

History: G2P2, no significant medical conditions.

Gynecological examination: Irregularly enlarged uterus, firm consistency.

Transvaginal ultrasound: Multiple intramural fibroids, largest measuring 5 cm.

Question 1. What is the most common complication associated with this condition?

a) Endometrial cancer
b) Infertility
c) Anemia
d) Ovarian cyst formation
e) Urinary retention

Question 2. What is the best long-term treatment for symptom relief if the patient does not desire future fertility?

a) Myomectomy
b) Hysterectomy
c) Uterine artery embolization
d) Gonadotropin-releasing hormone (GnRH) agonists
e) NSAIDs

Question 3. What is the best method for confirming the diagnosis preoperatively?

a) MRI of the pelvis
b) Hysterosalpingography
c) Endometrial biopsy
d) Hysteroscopy
e) Laparoscopy

Case 7

A **46-year-old woman** presents with **heavy menstrual bleeding and pelvic discomfort.**

History: G4P3, menopause expected soon, no significant medical conditions.

Transvaginal ultrasound: An 8 cm submucosal fibroid causing endometrial distortion.

Question 1. What is the best treatment option for long-term control of symptoms if she does not wish to preserve her uterus?

a) Myomectomy
b) Hysterectomy
c) Uterine artery embolization
d) GnRH agonists
e) Endometrial ablation

Question 2. What is the role of GnRH agonists in fibroid management?

a) Definitive treatment of fibroids
b) Preoperative reduction of fibroid size
c) Increasing fibroid vascularization
d) Permanent cure for fibroids
e) Enhancing estrogen production

Question 3. Which of the following is NOT a risk factor for uterine fibroids?

a) Early menarche
b) Obesity
c) High parity
d) African descent
e) Family history of fibroids

Case 8

A **33-year-old woman** presents with **progressive dysmenorrhea and deep dyspareunia** over the past year.

History: No history of pelvic infections, regular periods.

Gynecological examination: Globular, diffusely enlarged uterus.

MRI findings: Thickened myometrium with poorly defined fibroid-like structures.

Question 1. What is the most likely diagnosis?

a) Uterine fibroids
b) Endometriosis
c) Adenomyosis
d) Endometrial carcinoma
e) Pelvic inflammatory disease (PID)

Question 2. What is the primary difference between adenomyosis and uterine fibroids?

a) Fibroids are always submucosal

b) Adenomyosis affects the endometrial lining

c) Fibroids cause asymmetric uterine enlargement

d) Adenomyosis originates from the endometrial glands invading the myometrium

e) Fibroids are always cancerous

Question 3. What is the best treatment option for symptom relief while preserving fertility?

a) NSAIDs and hormonal therapy

b) Total hysterectomy

c) Uterine artery embolization

d) Chemotherapy

e) Gonadotropin-releasing hormone (GnRH) antagonists

Case 9

A **29-year-old woman** presents with **difficulty conceiving** for the past 2 years.

History: No history of sexually transmitted infections, no chronic medical conditions.

Gynecological examination: Normal external genitalia, uterus is **firm and irregularly enlarged**.

Hysterosalpingography (HSG): Uterine cavity distortion due to multiple submucosal fibroids.

Question 1. What is the most likely cause of her infertility?

a) Ovarian dysfunction

b) Endometrial polyp

c) Submucosal fibroids

d) Cervical stenosis

e) Primary ovarian insufficiency

Question 2. What is the best surgical treatment option for her condition?

a) Hysterectomy

b) Uterine artery embolization

c) Myomectomy

d) Endometrial ablation

e) GnRH therapy only

Question 3. What is the main risk associated with fibroids during pregnancy?

a) Uterine rupture

b) Preterm labor
c) Gestational diabetes
d) Cervical incompetence
e) Hyperemesis gravidarum

Case 10

A **35-year-old woman** presents with **acute-onset lower abdominal pain, nausea, and vomiting**.

History: Diagnosed with a **large pedunculated fibroid**, no previous interventions.

Gynecological examination: Severe tenderness over the lower abdomen, guarding, and rebound tenderness.

Ultrasound findings: Twisted pedunculated fibroid with no vascular flow.

Question 1. What is the most likely diagnosis?
a) Fibroid degeneration
b) Ovarian torsion
c) Ruptured ectopic pregnancy
d) Uterine rupture
e) Pelvic inflammatory disease

Question 2. What is the best next step in management?
a) IV antibiotics and pain management
b) Immediate laparoscopic myomectomy
c) Conservative observation
d) GnRH therapy for 3 months
e) Hormonal therapy

Question 3. What is the main complication of untreated fibroid torsion?
a) Chronic pelvic pain
b) Sepsis
c) Hemorrhage
d) Urinary retention
e) Endometrial hyperplasia

V TOPIC ENDOMETRIOSIS. DEFINITION. SITES. PATHOGENESIS. CLINICAL. DIAGNOSIS. DIFFERENTIAL DIAGNOSIS. COMPLICATIONS. TREATMENT

Test questions:

1. What is endometriosis?
a) A malignant transformation of endometrial cells
b) The presence of endometrial tissue outside the uterine cavity
c) The infection of the endometrium
d) A congenital anomaly of the uterus
e) A fibrotic disease of the ovaries

2. What is the most common site of endometriosis?
a) Cervix
b) Endometrium
c) Ovaries
d) Fallopian tubes
e) Ureter

3. Which theory best explains the pathogenesis of endometriosis?
a) Genetic predisposition
b) Retrograde menstruation theory
c) Infectious theory
d) Hypoestrogenism theory
e) Autoimmune dysfunction

4. Which of the following is NOT a common site of endometriosis?
a) Lungs
b) Peritoneum
c) Ovaries
d) Rectovaginal septum
e) Myocardium

5. The classic triad of symptoms in endometriosis includes:
a) Pelvic pain, dysmenorrhea, infertility
b) Postmenopausal bleeding, hot flashes, weight loss
c) Heavy menstrual bleeding, anemia, amenorrhea
d) Uterine prolapse, vaginal atrophy, dyspareunia
e) Endometrial hyperplasia, menorrhagia, polyuria

6. Which of the following symptoms is most suggestive of endometriosis?

a) Chronic pelvic pain that worsens before menstruation
b) Irregular vaginal discharge with foul odor
c) Heavy bleeding after intercourse
d) Sudden onset of severe abdominal pain
e) Painless postmenopausal bleeding

7. Endometriosis is most commonly diagnosed in women of which age group?

a) 10–15 years
b) 16–25 years
c) 25–35 years
d) 36–45 years
e) 50–60 years

8. The definitive diagnosis of endometriosis is made by:

a) Transvaginal ultrasound
b) MRI
c) Laparoscopy with histological confirmation
d) Pelvic examination
e) CA-125 blood test

9. Which marker is often elevated in women with endometriosis?

a) CA-125
b) Beta-hCG
c) Alpha-fetoprotein (AFP)
d) C-reactive protein (CRP)
e) LH

10. Which imaging modality is most commonly used to identify ovarian endometriomas?

a) CT scan
b) Transvaginal ultrasound
c) Hysterosalpingography
d) X-ray
e) PET scan

11. What is the most common complication of endometriosis?

a) Uterine rupture
b) Pelvic inflammatory disease
c) Infertility

d) Cervical stenosis
e) Ovarian hyperstimulation syndrome

12. What is the primary mechanism by which endometriosis causes infertility?

a) Endometrial atrophy
b) Adhesion formation leading to tubal obstruction
c) Chronic endometrial hyperplasia
d) Decreased ovarian follicle count
e) Increased testosterone levels

13. Which of the following conditions is most often confused with endometriosis?

a) Uterine fibroids
b) Adenomyosis
c) Polycystic ovarian syndrome (PCOS)
d) Tubo-ovarian abscess
e) Pelvic kidney

14. Which of the following is a first-line treatment option for endometriosis?

a) GnRH agonists
b) NSAIDs and combined oral contraceptives
c) Hysterectomy
d) High-dose estrogen therapy
e) Radiation therapy

15. Which medication can induce a pseudo-menopausal state to treat endometriosis?

a) Estrogen-receptor modulators
b) GnRH agonists
c) Dopamine agonists
d) Beta-blockers
e) Corticosteroids

16. What is the gold standard surgical treatment for women with severe endometriosis and no desire for future fertility?

a) Laparoscopic excision of lesions
b) Hysterectomy with bilateral salpingo-oophorectomy
c) Endometrial ablation
d) Tubal ligation
e) Myomectomy

17. Which symptom is more specific to adenomyosis than endometriosis?

a) Cyclic pelvic pain
b) Heavy menstrual bleeding (menorrhagia)
c) Infertility
d) Dyspareunia
e) Chronic pelvic pain

18. Which of the following factors reduces the risk of developing endometriosis?

a) Late menarche
b) Nulliparity
c) Early menarche
d) High estrogen levels
e) Prolonged menstrual cycles

19. Which of the following is NOT an effective treatment option for endometriosis?

a) Oral contraceptive pills
b) GnRH agonists
c) Hysterectomy with oophorectomy
d) Radiation therapy
e) Laparoscopic lesion excision

20. Which of the following statements about endometriosis is TRUE?

a) It is a risk factor for endometrial cancer
b) Symptoms always resolve after menopause
c) It is a common cause of infertility
d) It is an infectious disease
e) It exclusively affects the uterus

21. What is a major disadvantage of prolonged GnRH agonist therapy?

a) Increased risk of ovarian cancer
b) Osteoporosis
c) Severe gastrointestinal bleeding
d) Elevated testosterone levels
e) Increased insulin resistance

22. Which type of endometriosis is commonly associated with chocolate cysts?

a) Peritoneal endometriosis

b) Ovarian endometriosis
c) Deep infiltrating endometriosis
d) Cervical endometriosis
e) Thoracic endometriosis

23. What is the primary goal of medical therapy for endometriosis?

a) To shrink existing fibroids
b) To induce ovulation
c) To suppress ovulation and decrease estrogen levels
d) To increase progesterone levels
e) To increase LH secretion

24. What is a key feature of deep infiltrating endometriosis?

a) Endometrial glands in the myometrium
b) Involvement of structures beyond the peritoneum
c) Presence of cystic ovarian masses
d) High risk of malignant transformation
e) Spontaneous regression after menarche

25. Which non-invasive imaging technique is most useful in assessing deep infiltrating endometriosis?

a) Transvaginal ultrasound
b) X-ray
c) Mammography
d) Hysteroscopy
e) PET scan

26. What is the primary mechanism by which endometriosis leads to chronic pelvic pain?

a) Increased progesterone secretion
b) Formation of fibrotic adhesions and inflammation
c) Decreased prostaglandin production
d) Hyperplasia of the myometrium
e) Overproduction of estrogen

27. What lifestyle modification may help reduce symptoms of endometriosis?

a) High-fat diet
b) Regular exercise and anti-inflammatory diet
c) Increased caffeine intake
d) Smoking cessation only
e) Prolonged estrogen therapy

28. What is the most common site of extrapelvic endometriosis?

a) Lungs

b) Liver

c) Spleen

d) Kidneys

e) Thyroid

29. Which type of pain is most commonly associated with endometriosis?

a) Acute, sharp pain lasting for a few minutes

b) Chronic pelvic pain that worsens with menstruation

c) Intermittent pain only during ovulation

d) Pain that improves with menstruation

e) Localized lower back pain without pelvic involvement

30. Which of the following is the most definitive method for treating severe, refractory endometriosis?

a) NSAIDs

b) Combined oral contraceptives

c) GnRH agonists

d) Laparoscopic excision with hysterectomy and bilateral oophorectomy

e) Endometrial ablation

Situational tasks:

Case 1

A **28-year-old woman** presents with **progressively worsening dysmenorrhea, chronic pelvic pain, and deep dyspareunia** over the last two years.

History: Nulliparous, no previous surgeries, regular menstrual cycles.

Gynecological examination: Uterus is **fixed, retroverted, and tender**, nodularity in the posterior fornix.

Transvaginal ultrasound: Hypoechoic lesions in the ovaries, suggestive of endometriomas.

Question 1. What is the most likely diagnosis?

a) Pelvic inflammatory disease (PID)

b) Adenomyosis

c) Endometriosis

d) Uterine fibroids
e) Polycystic ovary syndrome (PCOS)

Question 2. What is the gold standard diagnostic method?

a) Transvaginal ultrasound
b) CA-125 levels
c) MRI of the pelvis
d) Laparoscopy with biopsy
e) Hysteroscopy

Question 3. What is the best first-line treatment for symptomatic relief?

a) NSAIDs and hormonal therapy
b) Hysterectomy
c) Laparoscopic excision of lesions
d) Uterine artery embolization
e) Clomiphene citrate

Case 2

A **34-year-old woman** presents with **infertility and severe cyclic pelvic pain** for the last three years.

History: G0P0, no significant past medical history.

Gynecological examination: Uterus is normal in size, but tenderness is noted in the **cul-de-sac region**.

MRI findings: Ovarian endometriomas measuring 4 cm bilaterally.

Question 1. What is the most likely cause of her infertility?

a) Polycystic ovary syndrome
b) Pelvic inflammatory disease
c) Endometriosis
d) Uterine fibroids
e) Endometrial hyperplasia

Question 2. What is the best treatment approach if the patient desires pregnancy?

a) IVF (In vitro fertilization)
b) Hysterectomy
c) Uterine artery embolization
d) Continuous oral contraceptive therapy
e) Laparoscopic ovarian cystectomy

Question 3. What is a common long-term complication of untreated endometriosis?

a) Uterine rupture

b) Chronic pelvic pain

c) Ovarian torsion

d) Cervical stenosis

e) Hyperprolactinemia

Case 3

A **39-year-old woman** presents with **progressive menorrhagia, pelvic pain, and worsening dysmenorrhea**.

History: Three previous cesarean sections.

Gynecological examination: Uterus is **enlarged, tender, and diffusely thickened**.

MRI findings: Myometrial infiltration with poorly defined fibroid-like structures.

Question 1. What is the most likely diagnosis?

a) Uterine fibroids

b) Adenomyosis

c) Endometriosis

d) Endometrial carcinoma

e) Pelvic inflammatory disease

Question 2. How does adenomyosis differ from endometriosis?

a) Adenomyosis involves ectopic endometrial tissue outside the uterus

b) Adenomyosis affects the myometrium, while endometriosis occurs outside the uterus

c) Endometriosis is always malignant

d) Adenomyosis does not cause pelvic pain

e) Endometriosis is only found in the ovaries

Question 3. What is the best management approach for symptom relief while preserving fertility?

a) NSAIDs and hormonal therapy

b) Hysterectomy

c) Uterine artery embolization

d) Chemotherapy

e) Endometrial ablation

Case 4

A **31-year-old woman** presents with **chronic pelvic pain, bloating, and rectal pain during menstruation**.

History: G1P1, previous cesarean delivery, regular cycles.

Gynecological examination: Tender nodules palpated in the posterior vaginal fornix.

Colonoscopy: No colorectal pathology identified.

Question 1. What is the most likely diagnosis?

a) Irritable bowel syndrome
b) Endometriosis
c) Appendicitis
d) Crohn's disease
e) Pelvic inflammatory disease

Question 2. Which test can confirm the diagnosis?

a) Laparoscopy
b) Colonoscopy biopsy
c) Transabdominal ultrasound
d) Serum CA-125
e) Endometrial biopsy

Question 3. What is the first-line treatment for symptom management?

a) NSAIDs and hormonal suppression
b) Hysterectomy
c) Endometrial ablation
d) Uterine artery embolization
e) IVF treatment

Case 5

A **45-year-old woman** presents with **severe pelvic pain and an adnexal mass** found on routine pelvic examination.

History: Regular menstrual cycles, three vaginal deliveries.

Transvaginal ultrasound: Unilocular cystic ovarian mass with ground-glass appearance.

CA-125 levels: Mildly elevated.

Question 1. What is the most likely diagnosis?

a) Ovarian cancer
b) Endometrioma

c) Functional ovarian cyst
d) Tubo-ovarian abscess
e) Polycystic ovary syndrome

Question 2. What is the most appropriate next step?

a) Laparoscopic ovarian cystectomy
b) Chemotherapy
c) Uterine artery embolization
d) Repeat CA-125 testing in 6 months
e) Endometrial biopsy

Question 3. What is the primary goal of surgical treatment in this patient?

a) Confirm diagnosis and preserve ovarian function
b) Remove entire ovary
c) Perform hysterectomy
d) Treat ovarian cancer
e) Induce menopause

Case 6

A **30-year-old woman** presents with **severe cyclic pelvic pain, dysmenorrhea, and deep dyspareunia**.

History: No pregnancies, no history of pelvic infections.

Gynecological examination: Uterus is **fixed, retroverted, and mildly enlarged**.

Laparoscopic findings: Chocolate-colored cysts in the ovaries and multiple peritoneal adhesions.

Question 1. What is the most likely diagnosis?

a) Ovarian cyst
b) Endometriosis
c) Uterine fibroids
d) Polycystic ovary syndrome (PCOS)
e) Adenomyosis

Question 2. What is the most appropriate first-line treatment for symptom relief?

a) Laparoscopic excision of lesions
b) NSAIDs and hormonal therapy
c) Total hysterectomy
d) Uterine artery embolization
e) Antibiotic therapy

Question 3. What is a potential long-term complication of this condition?

a) Increased risk of ovarian cancer
b) Ovarian torsion
c) Pelvic inflammatory disease
d) Uterine perforation
e) Hypothyroidism

Case 7

A **27-year-old woman** presents with **infertility and cyclic lower abdominal pain**.

History: Regular menstrual cycles, no significant medical history.

Gynecological examination: Uterus is **mobile and mildly tender**, adnexal fullness noted.

Transvaginal ultrasound: Bilateral ovarian endometriomas (3 cm each).

Question 1. What is the most likely explanation for her infertility?

a) Anovulation
b) Tubal obstruction due to adhesions
c) Endometrial hyperplasia
d) Ovarian insufficiency
e) Cervical stenosis

Question 2. What is the best treatment option if she desires pregnancy?

a) In vitro fertilization (IVF)
b) Total hysterectomy
c) Continuous oral contraceptive therapy
d) Uterine artery embolization
e) Endometrial ablation

Question 3. Which diagnostic test would most accurately confirm tubal patency?

a) MRI of the pelvis
b) Hysterosalpingography (HSG)
c) Serum CA-125
d) Endometrial biopsy
e) Colonoscopy

Case 8

A **41-year-old woman** presents with **progressively worsening pelvic pain, bloating, and irregular bowel movements**.

History: No previous gastrointestinal diseases, multiple cesarean sections.

Gynecological examination: Tender nodularity in the posterior vaginal fornix.

Colonoscopy: No significant abnormalities.

Question 1. What is the most likely diagnosis?

a) Irritable bowel syndrome
b) Pelvic inflammatory disease
c) Deep infiltrating endometriosis
d) Crohn's disease
e) Ovarian cancer

Question 2. What is the most appropriate diagnostic test?

a) Laparoscopy
b) Colonoscopy biopsy
c) Hysteroscopy
d) CT scan of the abdomen
e) Pap smear

Question 3. What is the preferred medical treatment for this condition?

a) NSAIDs and combined oral contraceptives
b) Antibiotics
c) Hysterectomy
d) Chemotherapy
e) Endometrial ablation

Case 9

A **35-year-old woman** presents with **chronic pelvic pain, dysmenorrhea, and severe lower back pain during menstruation**.

History: G2P2, no known gynecological disorders.

MRI findings: Myometrial thickening with small cystic spaces, no distinct fibroids.

Question 1. What is the most likely diagnosis?

a) Endometriosis

b) Adenomyosis

c) Pelvic inflammatory disease

d) Polycystic ovary syndrome (PCOS)

e) Uterine fibroids

Question 2. How does adenomyosis differ from endometriosis?

a) Adenomyosis only affects the ovaries

b) Adenomyosis is a condition confined to the myometrium

c) Endometriosis is always malignant

d) Adenomyosis does not cause pain

e) Endometriosis does not affect fertility

Question 3. What is the best management approach if she wishes to avoid surgery?

a) NSAIDs and hormonal therapy

b) Laparoscopic excision of lesions

c) Total hysterectomy

d) Endometrial biopsy

e) Uterine artery embolization

Case 10

A **50-year-old woman** presents with **pelvic pain, postmenopausal bleeding, and a complex ovarian mass** on ultrasound.

History: No hormone replacement therapy, no history of gynecological conditions.

Transvaginal ultrasound: Unilateral ovarian mass with mixed solid and cystic components.

CA-125 levels: Elevated.

Question 1. What is the most likely diagnosis?

a) Functional ovarian cyst

b) Ovarian cancer

c) Endometrioma

d) Uterine fibroids

e) Polycystic ovary syndrome

Question 2. What is the next best step in management?

a) Laparoscopic ovarian cystectomy

b) Chemotherapy

c) Immediate surgical evaluation

d) Repeat ultrasound in 3 months

e) Oral contraceptive therapy

Question 3. What is the most appropriate long-term management for confirmed ovarian cancer?

a) Total hysterectomy with bilateral salpingo-oophorectomy

b) Watchful waiting

c) Endometrial ablation

d) Uterine artery embolization

e) Hormone replacement therapy

VI TOPIC INFECTIONS OF THE INDIVIDUAL PELVIC ORGANS. SEXUALLY TRANSMITTED INFECTIONS. VULVAL INFECTION. INFECTION OF BARTHOLINS GLAND. VAGINITIS. VULVOVAGINITIS IN CHILDHOOD. CERVICITIS. ENDOMETRITIS. SALPINGITIS. OOPHORITIS. PARAMETRITIS. PELVIC ABSCESS

Test questions:

1. Which of the following is the most common sexually transmitted infection (STI) worldwide?

a) Chlamydia trachomatis
b) Neisseria gonorrhoeae
c) Treponema pallidum
d) Human papillomavirus (HPV)
e) Trichomonas vaginalis

2. Which organism is most commonly responsible for bacterial vaginosis (BV)?

a) Neisseria gonorrhoeae
b) Candida albicans
c) Gardnerella vaginalis
d) Trichomonas vaginalis
e) Chlamydia trachomatis

3. Which of the following is NOT a symptom of vaginitis?

a) Vaginal discharge
b) Vaginal itching
c) Dysuria
d) Hematuria
e) Dyspareunia

4. The most common cause of vulvovaginitis in prepubertal girls is:

a) Candida albicans
b) Group A Streptococcus
c) Trichomonas vaginalis
d) Human papillomavirus (HPV)
e) Herpes simplex virus (HSV)

5. The main function of lactobacilli in the vaginal flora is:

a) Producing lactic acid to maintain vaginal pH

b) Destroying bacterial infections
c) Stimulating estrogen production
d) Increasing cervical mucus production
e) Producing antibodies

6. Which of the following is NOT a risk factor for developing bacterial vaginosis?

a) Frequent douching
b) Multiple sexual partners
c) Recent antibiotic use
d) Use of intrauterine devices
e) High estrogen levels

7. Which of the following statements about Trichomonas vaginalis infection is TRUE?

a) It is a bacterial infection
b) It is often asymptomatic in men
c) It does not cause vaginal discharge
d) It is caused by a fungus
e) It has no association with pelvic inflammatory disease

8. Which of the following is the first-line treatment for gonococcal cervicitis?

a) Azithromycin
b) Doxycycline
c) Metronidazole
d) Ceftriaxone
e) Clindamycin

9. What is the primary mode of transmission for Treponema pallidum?

a) Fecal-oral route
b) Direct sexual contact
c) Airborne droplets
d) Contaminated food
e) Blood transfusion

10. Which of the following symptoms is characteristic of primary syphilis?

a) Maculopapular rash
b) Gummatous lesions
c) Genital ulcer (chancre)
d) Condylomata lata
e) Neurological dysfunction

11. Pelvic inflammatory disease (PID) most commonly results from:

a) Ascending infection from sexually transmitted pathogens
b) Hematogenous spread of bacteria
c) Autoimmune reactions
d) Descending infection from the kidneys
e) Trauma-related infections

12. Which condition is most commonly associated with untreated chlamydial infection?

a) Cervical cancer
b) Endometrial hyperplasia
c) Infertility
d) Fibroids
e) Ovarian cysts

13. The primary cause of Bartholin's gland abscess is:

a) Staphylococcus aureus
b) Streptococcus pyogenes
c) Neisseria gonorrhoeae
d) Human papillomavirus
e) Candida albicans

14. What is the first-line treatment for a Bartholin's gland abscess?

a) Oral antibiotics alone
b) Incision and drainage
c) Cryotherapy
d) Chemotherapy
e) Topical steroids

15. The most common causative agent of acute cervicitis is:

a) Trichomonas vaginalis
b) Chlamydia trachomatis
c) Mycobacterium tuberculosis
d) Staphylococcus aureus
e) Enterococcus faecalis

16. What is the most common complication of untreated pelvic inflammatory disease (PID)?

a) Pelvic abscess
b) Ectopic pregnancy
c) Ovarian cancer

d) Cervical incompetence
e) Urinary tract infection

17. The classical triad of symptoms in acute PID includes:

a) Abdominal pain, cervical motion tenderness, fever
b) Dyspareunia, hematuria, vaginal atrophy
c) Uterine prolapse, constipation, amenorrhea
d) Pruritus, hot flashes, heavy menstrual bleeding
e) Weight loss, breast tenderness, nausea

18. Which of the following antibiotics is preferred for treating chlamydial cervicitis?

a) Amoxicillin
b) Erythromycin
c) Azithromycin
d) Vancomycin
e) Fluconazole

19. Salpingitis refers to inflammation of which organ?

a) Uterus
b) Fallopian tubes
c) Ovaries
d) Cervix
e) Vulva

20. Which of the following is the most common cause of endometritis?

a) Neisseria gonorrhoeae
b) Escherichia coli
c) Streptococcus agalactiae
d) Chlamydia trachomatis
e) Candida albicans

21. Which of the following conditions is a risk factor for developing a pelvic abscess?

a) Hysterectomy
b) Pelvic inflammatory disease (PID)
c) Polycystic ovarian syndrome (PCOS)
d) Hypothyroidism
e) Endometriosis

22. What is the most common treatment for mild to moderate pelvic inflammatory disease?

a) Surgery

b) Oral antibiotics
c) Radiation therapy
d) Antifungal therapy
e) Hormonal therapy

23. Which of the following is a known long-term consequence of untreated PID?

a) Ovarian cancer
b) Cervical ectropion
c) Tubo-ovarian abscess
d) Menopause
e) Bartholin's cyst

24. What is the primary mode of transmission for human papillomavirus (HPV)?

a) Airborne droplets
b) Sexual contact
c) Contaminated food
d) Blood transfusion
e) Fecal-oral route

25. Which of the following is the first-line treatment for bacterial vaginosis?

a) Fluconazole
b) Ceftriaxone
c) Metronidazole
d) Clindamycin
e) Azithromycin

26. Which STI is most strongly associated with cervical cancer?

a) Chlamydia trachomatis
b) Neisseria gonorrhoeae
c) Human papillomavirus (HPV)
d) Trichomonas vaginalis
e) Treponema pallidum

27. What is the recommended first-line treatment for trichomoniasis?

a) Doxycycline
b) Metronidazole
c) Azithromycin
d) Ceftriaxone
e) Fluconazole

28. Which of the following conditions is most commonly associated with tubo-ovarian abscess?

a) Ectopic pregnancy
b) Pelvic inflammatory disease (PID)
c) Endometriosis
d) Uterine fibroids
e) Bartholin's cyst

29. Which sexually transmitted infection (STI) is commonly asymptomatic in females but can cause infertility if left untreated?

a) Human papillomavirus (HPV)
b) Neisseria gonorrhoeae
c) Chlamydia trachomatis
d) Treponema pallidum
e) Trichomonas vaginalis

30. What is the most effective preventive measure for HPV-related cervical cancer?

a) Routine Pap smear
b) HPV vaccination
c) Prophylactic antibiotic therapy
d) Barrier contraception
e) Frequent douching

Situational tasks:

Case 1

A **24-year-old sexually active woman** presents with **purulent vaginal discharge, lower abdominal pain, and postcoital bleeding** for the past 10 days.

History: No history of pelvic infections, no previous pregnancies.

Gynecological examination: Cervical motion tenderness, mucopurulent discharge from the cervix, and mild adnexal tenderness bilaterally.

Question 1. What is the most likely diagnosis?

a) Bacterial vaginosis
b) Cervicitis
c) Endometritis
d) Pelvic inflammatory disease (PID)
e) Oophoritis

Question 2. What is the most appropriate diagnostic test?

a) Gram stain and culture of cervical discharge
b) Transvaginal ultrasound
c) HPV DNA testing
d) Hysteroscopy
e) MRI of the pelvis

Question 3. What is the best first-line treatment?

a) Ceftriaxone plus doxycycline
b) Fluconazole
c) Metronidazole
d) Clindamycin cream
e) Levonorgestrel intrauterine system (IUS)

Case 2

A **19-year-old girl** presents with **intense vulvar itching, burning sensation, and thick white vaginal discharge** for the past three days.

History: No history of previous infections, no history of sexually transmitted diseases (STDs).

Gynecological examination: Erythema of the vulva, thick curd-like vaginal discharge, no cervical motion tenderness.

Question 1. What is the most likely diagnosis?

a) Bacterial vaginosis
b) Trichomoniasis
c) Vulvovaginal candidiasis
d) Gonococcal cervicitis
e) Bartholin's gland abscess

Question 2. What is the most appropriate diagnostic test?

a) Wet mount microscopy
b) NAAT (Nucleic Acid Amplification Test) for gonorrhea
c) Endometrial biopsy
d) Hysterosalpingography
e) MRI of the pelvis

Question 3. What is the first-line treatment?

a) Fluconazole
b) Ceftriaxone
c) Metronidazole
d) Clindamycin cream
e) Azithromycin

Case 3

A **29-year-old woman** presents with **severe right-sided vulvar pain and swelling** for the past three days.

History: No history of recurrent infections, sexually active, no recent antibiotic use.

Gynecological examination: Tender, erythematous swelling (4 cm) in the right labia majora, fluctuant on palpation.

Question 1. What is the most likely diagnosis?

a) Bartholin's gland abscess
b) Vulvodynia
c) Endometrioma
d) Lichen sclerosus
e) Pelvic inflammatory disease

Question 2. What is the most appropriate management?

a) Incision and drainage with Word catheter placement
b) Oral fluconazole
c) Cryotherapy
d) Immediate hysterectomy
e) Loop electrosurgical excision procedure (LEEP)

Question 3. What is a common causative organism?

a) Candida albicans
b) Neisseria gonorrhoeae
c) Staphylococcus aureus
d) Human papillomavirus (HPV)
e) Treponema pallidum

Case 4

A **32-year-old postpartum woman** presents with **fever, abdominal pain, and foul-smelling lochia** two days after cesarean section.

History: No previous infections, delivered at 39 weeks gestation via C-section due to fetal distress.

Gynecological examination: Uterus is tender and enlarged, foul-smelling vaginal discharge present.

Question 1. What is the most likely diagnosis?

a) Endometritis
b) Salpingitis

c) Retained products of conception
d) Pelvic abscess
e) Ovarian torsion

Question 2. What is the best first-line treatment?

a) Broad-spectrum IV antibiotics (clindamycin + gentamicin)
b) Oral metronidazole
c) Dilation and curettage
d) Immediate hysterectomy
e) Loop electrosurgical excision procedure (LEEP)

Question 3. What is a common risk factor for this condition?

a) Vaginal birth
b) Cesarean section
c) Polycystic ovary syndrome
d) Hormone replacement therapy
e) Endometriosis

Case 5

A **26-year-old woman** presents with **severe lower abdominal pain, fever (38.5°C), and nausea** for the past three days.

History: History of gonorrhea one year ago, currently sexually active.

Gynecological examination: Severe cervical motion tenderness, adnexal tenderness, and guarding.

Ultrasound findings: Tubo-ovarian abscess measuring 6 cm on the right ovary.

Question 1. What is the most likely diagnosis?

a) Ovarian torsion
b) Tubo-ovarian abscess
c) Ectopic pregnancy
d) Endometriosis
e) Uterine fibroids

Question 2. What is the best initial management?

a) IV broad-spectrum antibiotics
b) Immediate laparoscopic drainage
c) NSAIDs and observation
d) Methotrexate therapy
e) Hormonal therapy

Question 3. When is surgical intervention indicated?

a) No improvement after 48-72 hours of antibiotics
b) Mild symptoms with no fever
c) Normal ultrasound findings
d) Resolution of symptoms within 24 hours
e) Absence of leukocytosis

Case 6

A **22-year-old sexually active woman** presents with **foul-smelling vaginal discharge and postcoital bleeding** for the past two weeks.

History: No history of previous sexually transmitted infections (STIs), occasional condom use.

Gynecological examination: Erythematous cervix with mucopurulent discharge, cervical motion tenderness.

NAAT results: Positive for Chlamydia trachomatis.

Question 1. What is the most likely diagnosis?

a) Vulvovaginal candidiasis
b) Bacterial vaginosis
c) Trichomoniasis
d) Chlamydial cervicitis
e) Gonorrheal vaginitis

Question 2. What is the best first-line treatment?

a) Azithromycin or doxycycline
b) Metronidazole
c) Fluconazole
d) Clindamycin cream
e) Vancomycin

Question 3. What is the most common complication if untreated?

a) Endometriosis
b) Ectopic pregnancy
c) Ovarian torsion
d) Cervical cancer
e) Urinary tract infection

Case 7

A **5-year-old girl** presents with **vulvar itching, burning, and yellowish vaginal discharge** for one week.

History: No history of trauma or sexual abuse, good general health.

Gynecological examination: Mild vulvar erythema, no signs of trauma, and no foreign bodies.

Question 1. What is the most likely diagnosis?

a) Foreign body in the vagina
b) Prepubertal vulvovaginitis
c) Gonorrheal cervicitis
d) Lichen sclerosus
e) Labial adhesion

Question 2. What is the most common cause of this condition?

a) Candida albicans
b) Escherichia coli
c) Neisseria gonorrhoeae
d) Trichomonas vaginalis
e) Staphylococcus aureus

Question 3. What is the best management for this patient?

a) Improve hygiene, warm sitz baths, and reassurance
b) Fluconazole therapy
c) Immediate colposcopy
d) Loop electrosurgical excision procedure (LEEP)
e) Hysteroscopy

Case 8

A **29-year-old woman** presents with **high fever, severe lower abdominal pain, and vomiting** for two days.

History: Diagnosed with pelvic inflammatory disease (PID) two months ago but did not complete antibiotic treatment.

Gynecological examination: Severe bilateral adnexal tenderness, rebound tenderness, cervical motion tenderness.

Ultrasound findings: Complex multilocular abscess in the left adnexa.

Question 1. What is the most likely diagnosis?

a) Ovarian torsion
b) Pelvic abscess
c) Uterine fibroid degeneration
d) Ectopic pregnancy
e) Endometrial polyp

Question 2. What is the best initial management?

a) IV broad-spectrum antibiotics
b) Immediate laparotomy
c) NSAIDs and observation
d) Methotrexate therapy
e) Hormonal therapy

Question 3. When is surgical intervention indicated?

a) If the abscess is larger than 8 cm or does not improve after 48-72 hours of antibiotics
b) If there is mild pelvic discomfort only
c) If the patient has no fever
d) If leukocytosis is absent
e) If the patient has an asymptomatic ovarian cyst

Case 9

A **40-year-old woman** presents with **postpartum fever, chills, and lower abdominal pain** four days after a normal vaginal delivery.

History: No history of prior infections or complications during pregnancy.

Gynecological examination: Uterus is soft, tender, and slightly enlarged.

Laboratory results: Leukocytosis, elevated C-reactive protein (CRP).

Question 1. What is the most likely diagnosis?

a) Mastitis
b) Pelvic inflammatory disease
c) Postpartum endometritis
d) Retained products of conception
e) Pelvic abscess

Question 2. What is the best first-line treatment?

a) IV clindamycin and gentamicin
b) Oral fluconazole
c) Immediate hysterectomy
d) Loop electrosurgical excision procedure (LEEP)
e) Hormonal therapy

Question 3. What is the most common risk factor for this condition?

a) Vaginal birth
b) Cesarean section

c) Polycystic ovary syndrome
d) Menopause
e) Hormone replacement therapy

Case 10

A **31-year-old woman** presents with **lower abdominal pain, fever, and foul-smelling vaginal discharge** one week after an induced abortion.

History: No history of chronic medical conditions.

Gynecological examination: Severe uterine tenderness, open cervical os with purulent discharge.

Ultrasound findings: Heterogeneous endometrial thickening with gas bubbles.

Question 1. What is the most likely diagnosis?
a) Bacterial vaginosis
b) Endometritis with retained products of conception
c) Tubo-ovarian abscess
d) Cervical ectropion
e) Pelvic inflammatory disease

Question 2. What is the best immediate management?
a) IV broad-spectrum antibiotics and surgical evacuation
b) Hormonal therapy
c) Expectant management
d) Antiviral therapy
e) Endometrial biopsy

Question 3. What is the most serious complication of untreated septic abortion?
a) Chronic pelvic pain
b) Septic shock
c) Ovarian cyst formation
d) Infertility
e) Cervical stenosis

VII TOPIC OVARIAN TUMOURS. FOLLICULAR CYSTS. LUTEIN CYSTS OF THE OVARY. FOLLICULAR HAEMATOMAS. POLYCYSTIC OVARIAN SYNDROME (PCOS) OR DISEASE (PCOD). BORDERLINE OVARIAN TUMOURS. TUMOURS OF THE SURFACE EPITHELIUM. GERM CELL TUMOURS. SEX CORD STROMAL TUMOURS. FEMINIZING FUNCTIONING MESENCHYMOMA. VIRILIZING MESENCHYMOMA. TUMOURS ARISING FROM CONNECTIVE TISSUES OF THE OVARY. BENIGN OVARIAN TUMOURS. COMPLICATIONS OF OVARIAN TUMOURS

Test questions:

1. What is the most common type of ovarian tumor?

a) Germ cell tumors
b) Sex cord stromal tumors
c) Epithelial tumors
d) Mesenchymal tumors
e) Borderline ovarian tumors

2. Which of the following ovarian tumors arises from germ cells?

a) Serous cystadenoma
b) Brenner tumor
c) Dysgerminoma
d) Granulosa cell tumor
e) Thecoma

3. Which tumor is considered a sex cord-stromal tumor?

a) Teratoma
b) Sertoli-Leydig cell tumor
c) Serous carcinoma
d) Endometrioid carcinoma
e) Yolk sac tumor

4. Which hormone is most commonly elevated in granulosa cell tumors?

a) Testosterone
b) Estrogen
c) Progesterone
d) Human chorionic gonadotropin (hCG)
e) Cortisol

5. What is the most common complication of large ovarian tumors?

a) Endometrial hyperplasia
b) Ovarian torsion
c) Ectopic pregnancy
d) Pelvic inflammatory disease
e) Rectocele

6. Which of the following is NOT a characteristic feature of polycystic ovarian syndrome (PCOS)?

a) Chronic anovulation
b) Hyperandrogenism
c) High FSH levels
d) Polycystic ovaries on ultrasound
e) Insulin resistance

7. Which ovarian tumor is most commonly associated with virilization?

a) Granulosa cell tumor
b) Sertoli-Leydig cell tumor
c) Dysgerminoma
d) Thecoma
e) Serous cystadenoma

8. What is the best initial imaging modality for evaluating an ovarian tumor?

a) X-ray
b) Hysteroscopy
c) Transvaginal ultrasound
d) CT scan
e) MRI

9. What is the most common benign ovarian tumor?

a) Serous cystadenoma
b) Mucinous cystadenoma
c) Mature teratoma (dermoid cyst)
d) Thecoma
e) Dysgerminoma

10. Which of the following is considered a borderline ovarian tumor?

a) Serous cystadenocarcinoma
b) Serous borderline tumor

c) Immature teratoma
d) Granulosa cell tumor
e) Krukenberg tumor

11. Which of the following is NOT a germ cell tumor?

a) Teratoma
b) Yolk sac tumor
c) Dysgerminoma
d) Sertoli-Leydig cell tumor
e) Embryonal carcinoma

12. What is the most common complication of a follicular cyst?

a) Hemorrhage
b) Ovarian cancer
c) Peritonitis
d) Endometrial carcinoma
e) Infertility

13. Which of the following is a common tumor marker for epithelial ovarian cancer?

a) CA-125
b) Alpha-fetoprotein (AFP)
c) Beta-hCG
d) Inhibin
e) LDH

14. Which of the following ovarian tumors is most common in young girls and adolescents?

a) Brenner tumor
b) Dysgerminoma
c) Thecoma
d) Serous cystadenoma
e) Granulosa cell tumor

15. Which of the following conditions is most commonly associated with ovarian fibromas?

a) Turner syndrome
b) Meigs syndrome
c) Mayer-Rokitansky-Küster-Hauser syndrome
d) Androgen insensitivity syndrome
e) Asherman syndrome

16. Which of the following ovarian tumors secretes AFP?

a) Serous carcinoma

b) Thecoma
c) Yolk sac tumor
d) Granulosa cell tumor
e) Sertoli-Leydig tumor

17. Which ovarian tumor has a high risk of causing endometrial hyperplasia and carcinoma?

a) Sertoli-Leydig tumor
b) Granulosa cell tumor
c) Brenner tumor
d) Dysgerminoma
e) Yolk sac tumor

18. Which imaging modality is preferred for differentiating solid from cystic ovarian tumors?

a) Hysterosalpingography
b) MRI
c) X-ray
d) Mammography
e) PET scan

19. Which ovarian tumor is associated with elevated LDH levels?

a) Dysgerminoma
b) Serous cystadenocarcinoma
c) Thecoma
d) Sertoli-Leydig tumor
e) Mucinous cystadenoma

20. What is the most effective surgical treatment for young women with malignant germ cell tumors who wish to preserve fertility?

a) Total hysterectomy
b) Bilateral salpingo-oophorectomy
c) Unilateral salpingo-oophorectomy
d) Endometrial ablation
e) Radical hysterectomy

21. Which of the following ovarian tumors is least likely to be malignant?

a) Dysgerminoma
b) Immature teratoma
c) Mucinous cystadenoma

d) Yolk sac tumor
e) Serous carcinoma

22. Which ovarian tumor is characterized by coffee bean nuclei on histology?

a) Granulosa cell tumor
b) Dysgerminoma
c) Sertoli-Leydig tumor
d) Thecoma
e) Brenner tumor

23. What is the main treatment for advanced-stage epithelial ovarian cancer?

a) Radiotherapy
b) Hormonal therapy
c) Surgery followed by chemotherapy
d) Endometrial ablation
e) Watchful waiting

24. Which hormone is elevated in virilizing ovarian tumors?

a) Estrogen
b) Progesterone
c) Testosterone
d) LH
e) Prolactin

25. What is the most common mode of spread for epithelial ovarian carcinoma?

a) Lymphatic
b) Hematogenous
c) Direct invasion
d) Transcoelomic (peritoneal seeding)
e) Neural invasion

26. Which germ cell tumor is most responsive to chemotherapy?

a) Immature teratoma
b) Dysgerminoma
c) Yolk sac tumor
d) Sertoli-Leydig tumor
e) Brenner tumor

27. What is a potential complication of ovarian tumors during pregnancy?

a) Ovarian torsion

b) Pelvic inflammatory disease
c) Endometrial carcinoma
d) Cervical incompetence
e) Asherman syndrome

28. What is the best way to differentiate benign from malignant ovarian tumors on imaging?

a) Tumor size
b) Presence of calcifications
c) Irregular solid components and ascites
d) Presence of cystic areas
e) Unilateral involvement

29. Which ovarian tumor is most commonly bilateral?

a) Dysgerminoma
b) Krukenberg tumor
c) Sertoli-Leydig tumor
d) Thecoma
e) Granulosa cell tumor

30. Which ovarian tumor is most commonly associated with endometriosis?

a) Dysgerminoma
b) Yolk sac tumor
c) Clear cell carcinoma
d) Sertoli-Leydig tumor
e) Fibroma

Situational tasks:

Case 1

A **24-year-old woman** presents with **irregular menstrual cycles, hirsutism, and weight gain** over the past two years.

History: No known chronic conditions, cycles occur every 45–60 days.

Gynecological examination: Bilateral ovarian enlargement, mild acne, BMI 30 kg/m².

Transvaginal ultrasound: Multiple small peripheral ovarian cysts ("string of pearls" appearance).

Question 1. What is the most likely diagnosis?

a) Ovarian cystadenoma

b) Polycystic ovarian syndrome (PCOS)
c) Ovarian fibroma
d) Granulosa cell tumor
e) Endometriotic cyst

Question 2. What is the best initial treatment for this condition?

a) Combined oral contraceptives
b) Hysterectomy
c) Clomiphene citrate
d) Gonadotropin therapy
e) Laparoscopic ovarian drilling

Question 3. What long-term health risk is associated with this condition?

a) Cervical cancer
b) Osteoporosis
c) Type 2 diabetes mellitus
d) Premature ovarian failure
e) Hyperthyroidism

Case 2

A **35-year-old woman** presents with **abdominal bloating and dull pelvic pain** for the past three months.

History: No significant past medical history, no pregnancies.

Transvaginal ultrasound: Unilateral 8 cm complex ovarian mass with solid and cystic components.

Serum CA-125 level: Mildly elevated.

Question 1. What is the most likely diagnosis?

a) Functional ovarian cyst
b) Serous cystadenoma
c) Borderline ovarian tumor
d) Mature teratoma
e) Lutein cyst

Question 2. What is the best next step in management?

a) Surgical excision and histopathological analysis
b) Repeat ultrasound in 3 months
c) Oral contraceptive therapy
d) Endometrial biopsy
e) Expectant management

Question 3. What is a common complication of borderline ovarian tumors?

a) Metastatic spread
b) Recurrence after incomplete excision
c) Uterine perforation
d) Adrenal insufficiency
e) Endometrial hyperplasia

Case 3

A **19-year-old woman** presents with **acute-onset severe lower abdominal pain and nausea**.

History: No history of prior surgeries, no known medical conditions.

Gynecological examination: Right adnexal tenderness with guarding and rebound tenderness.

Transvaginal ultrasound: Enlarged right ovary (7 cm) with lack of blood flow on Doppler imaging.

Question 1. What is the most likely diagnosis?

a) Ovarian torsion
b) Ruptured follicular cyst
c) Ectopic pregnancy
d) Pelvic inflammatory disease
e) Ovarian fibroma

Question 2. What is the best immediate management?

a) Emergency laparoscopic detorsion
b) NSAIDs and observation
c) Hormonal therapy
d) Broad-spectrum IV antibiotics
e) Hysterectomy

Question 3. What is the most significant risk if left untreated?

a) Hemorrhagic shock
b) Chronic pelvic pain
c) Loss of ovarian function
d) Uterine rupture
e) Development of malignancy

Case 4

A **45-year-old woman** presents with **progressive deepening of voice, clitoromegaly, and increased muscle mass** over the past year.

History: No history of chronic illness, cycles have become irregular.

Gynecological examination: Bilateral adnexal fullness.

Serum testosterone level: Markedly elevated.

Question 1. What is the most likely diagnosis?

a) Ovarian fibroma
b) Virilizing sex cord-stromal tumor
c) Functional follicular cyst
d) Endometrial carcinoma
e) Polycystic ovarian syndrome

Question 2. What is the best next diagnostic step?

a) Transvaginal ultrasound
b) Endometrial biopsy
c) Serum CA-125
d) MRI of the pelvis
e) Colonoscopy

Question 3. What is the definitive treatment?

a) Surgical excision of the ovarian tumor
b) Hormonal therapy
c) Chemotherapy
d) Radiation therapy
e) Laparoscopic ovarian drilling

Case 5

A **55-year-old postmenopausal woman** presents with **abdominal distension and weight loss** over the past six months.

History: No history of hormone therapy, last menstrual period 5 years ago.

Gynecological examination: Palpable adnexal mass, mild ascites.

Serum CA-125 level: Significantly elevated.

Question 1. What is the most likely diagnosis?

a) Functional ovarian cyst
b) Serous cystadenocarcinoma
c) Benign dermoid cyst
d) Polycystic ovarian disease
e) Theca cell tumor

Question 2. What is the best next step in management?

a) Surgical staging with total hysterectomy and bilateral salpingo-oophorectomy

b) Repeat ultrasound in 3 months

c) Chemotherapy without surgery

d) Oral contraceptive therapy

e) Expectant management

Question 3. What is the most significant complication of untreated ovarian cancer?

a) Peritoneal carcinomatosis

b) Tubal blockage

c) Pelvic inflammatory disease

d) Chronic pelvic pain

e) Infertility

Case 6

A **26-year-old woman** presents with **sudden-onset sharp lower abdominal pain on the right side** after strenuous exercise.

History: Regular menstrual cycles, no history of ovarian cysts.

Gynecological examination: Right adnexal tenderness, no fever, stable vitals.

Transvaginal ultrasound: Simple cyst in the right ovary with free fluid in the pelvis.

Question 1. What is the most likely diagnosis?

a) Ovarian torsion

b) Ruptured ovarian cyst

c) Ectopic pregnancy

d) Endometrioma

e) Ovarian fibroma

Question 2. What is the initial management approach?

a) Observation and NSAIDs

b) Emergency laparotomy

c) IV antibiotics

d) Chemotherapy

e) Hormonal therapy

Question 3. What is the most significant complication of this condition?

a) Hemoperitoneum

b) Chronic pelvic pain
c) Infertility
d) Ovarian torsion
e) Uterine rupture

Case 7

A **21-year-old woman** presents with **acute right lower abdominal pain and vomiting**.

History: No history of prior gynecological issues, sexually active.

Gynecological examination: Severe tenderness in the right adnexa, rebound tenderness.

Transvaginal ultrasound: Right adnexal mass (6 cm) with absent Doppler blood flow.

Question 1. What is the most likely diagnosis?

a) Ovarian torsion
b) Appendicitis
c) Ruptured ectopic pregnancy
d) Endometriosis
e) Polycystic ovarian syndrome

Question 2. What is the best immediate management?

a) Emergency laparoscopic detorsion
b) NSAIDs and observation
c) Antibiotic therapy
d) Repeat ultrasound in 48 hours
e) Hormonal therapy

Question 3. What is the most likely consequence if left untreated?

a) Ovarian necrosis
b) Infertility
c) Tubal blockage
d) Chronic pelvic pain
e) Endometrial hyperplasia

Case 8

A **33-year-old woman** presents with **progressive abdominal distension and pelvic pressure**.

History: G2P2, last menstrual period was normal.

Gynecological examination: Firm, non-tender 12 cm mass in the right adnexa.

Transvaginal ultrasound: Unilocular cyst with echogenic debris.

Question 1. What is the most likely diagnosis?

a) Ovarian dermoid cyst (mature teratoma)
b) Functional follicular cyst
c) Mucinous cystadenoma
d) Theca-lutein cyst
e) Ovarian fibroma

Question 2. What is the preferred treatment approach?

a) Laparoscopic ovarian cystectomy
b) Chemotherapy
c) Expectant management
d) Hysterectomy
e) Uterine artery embolization

Question 3. What is a potential complication of this type of tumor?

a) Ovarian torsion
b) Metastasis
c) Endometriosis
d) Endometrial hyperplasia
e) Polycystic ovarian disease

Case 9

A **48-year-old woman** presents with **irregular vaginal bleeding and postmenopausal spotting**.

History: Menopause at 45, no hormone therapy.

Gynecological examination: Uterus is normal in size, left adnexal mass palpated.

Serum estradiol: Elevated.

Question 1. What is the most likely diagnosis?

a) Granulosa cell tumor
b) Serous cystadenoma
c) Ovarian fibroma
d) Polycystic ovarian syndrome
e) Theca-lutein cyst

Question 2. What is the definitive treatment?

a) Total hysterectomy with bilateral salpingo-oophorectomy

b) Hormonal therapy
c) Chemotherapy
d) Observation
e) Endometrial biopsy

Question 3. What is the most serious complication associated with this tumor type?

a) Endometrial carcinoma
b) Uterine perforation
c) Pelvic inflammatory disease
d) Cervical dysplasia
e) Ovarian torsion

Case 10

A **52-year-old woman** presents with **progressive lower abdominal discomfort, weight loss, and early satiety**.

History: No family history of gynecologic cancers, no previous surgeries.

Gynecological examination: Bilateral adnexal masses with ascites.

Serum CA-125 level: Significantly elevated.

Question 1. What is the most likely diagnosis?

a) Ovarian cancer (epithelial carcinoma)
b) Functional ovarian cyst
c) Borderline ovarian tumor
d) Ovarian fibroma
e) Germ cell tumor

Question 2. What is the best next step in management?

a) Exploratory laparotomy with tumor debulking
b) Oral contraceptive therapy
c) Endometrial biopsy
d) Repeat ultrasound in 3 months
e) Laparoscopic cystectomy

Question 3. What is the primary treatment for confirmed advanced ovarian cancer?

a) Surgical debulking and chemotherapy
b) Hormonal therapy
c) Radiation therapy
d) Expectant management
e) NSAIDs and symptomatic treatment

VIII TOPIC ACUTE ABDOMEN IN GYNECOLOGY: ECTOPIC PREGNANCY, OVARIAN APOPLEXY, TORSION OF THE PEDICLE OF AN OVARIAN CYST. CLINICAL. DIAGNOSIS. DIFFERENTIAL DIAGNOSIS. COMPLICATIONS. TREATMENT

Test questions:

1. Which of the following is the most common site of ectopic pregnancy?

a) Cervical
b) Ovarian
c) Ampullary part of the fallopian tube
d) Interstitial portion of the fallopian tube
e) Abdominal cavity

2. The classic triad of symptoms in ectopic pregnancy includes:

a) Abdominal pain, amenorrhea, vaginal bleeding
b) Fever, nausea, vomiting
c) Lower back pain, dysmenorrhea, constipation
d) Uterine enlargement, breast tenderness, headache
e) Pelvic pressure, weight loss, urinary frequency

3. The most life-threatening complication of ectopic pregnancy is:

a) Pelvic inflammatory disease
b) Hemorrhagic shock due to tubal rupture
c) Infertility
d) Endometrial hyperplasia
e) Hydatidiform mole

4. The best initial diagnostic test for suspected ectopic pregnancy is:

a) Serum beta-hCG level
b) Pelvic MRI
c) X-ray of the pelvis
d) Hysterosalpingography
e) CT scan

5. Which serum beta-hCG trend is most suggestive of an ectopic pregnancy?

a) Rapidly increasing levels

b) Doubling every 48 hours
c) Decreasing levels over time
d) Plateauing or suboptimal rise in 48 hours
e) Markedly low levels from conception

6. What is the most common clinical feature of ovarian apoplexy?

a) Sudden-onset severe unilateral lower abdominal pain
b) Intermittent pelvic pain worsening at night
c) Progressive pelvic pressure with abnormal uterine bleeding
d) Persistent nausea and vomiting without fever
e) Chronic low-grade fever with dysuria

7. Which of the following is the best imaging modality for diagnosing ovarian apoplexy?

a) MRI
b) CT scan
c) Transvaginal ultrasound with Doppler
d) Abdominal X-ray
e) Hysteroscopy

8. What is the most common cause of ovarian apoplexy?

a) Endometriosis
b) Rupture of a hemorrhagic ovarian cyst
c) Chronic pelvic inflammatory disease
d) Torsion of the ovary
e) Ovarian hyperstimulation syndrome

9. Which clinical sign is most suggestive of ovarian torsion?

a) Bilateral lower abdominal pain
b) Sudden, severe, unilateral pelvic pain with nausea
c) Low-grade fever and pelvic tenderness
d) Progressive dull pelvic pain lasting weeks
e) Hematuria with suprapubic discomfort

10. What is the most appropriate initial diagnostic imaging modality for ovarian torsion?

a) CT scan
b) Transabdominal ultrasound
c) Transvaginal ultrasound with Doppler
d) Pelvic X-ray
e) Hysterosalpingography

11. Which condition is most commonly misdiagnosed as acute appendicitis?

a) Ectopic pregnancy
b) Ovarian torsion
c) Ovarian apoplexy
d) Ruptured corpus luteum cyst
e) Endometriosis

12. The presence of a gestational sac outside the uterus with an empty uterine cavity on ultrasound suggests:

a) Normal early intrauterine pregnancy
b) Molar pregnancy
c) Ectopic pregnancy
d) Missed abortion
e) Placenta previa

13. Which clinical maneuver is useful in assessing peritoneal irritation in a ruptured ectopic pregnancy?

a) Murphy's sign
b) Psoas sign
c) Rovsing's sign
d) Cullen's sign
e) Rebound tenderness

14. Which condition is most commonly associated with ovarian torsion?

a) Ovarian cancer
b) Polycystic ovarian syndrome (PCOS)
c) Ovarian cysts (benign or malignant)
d) Endometriosis
e) Tubo-ovarian abscess

15. Which laboratory test is essential in the evaluation of suspected ovarian torsion?

a) Complete blood count (CBC)
b) Serum beta-hCG
c) CA-125
d) Thyroid function tests
e) Liver function tests

16. What is the definitive treatment for a ruptured ectopic pregnancy?

a) Expectant management

b) Methotrexate
c) Laparoscopic salpingectomy or salpingostomy
d) Hormonal therapy
e) Hysteroscopic removal

17. Which of the following is a risk factor for developing ectopic pregnancy?

a) Multiparity
b) Use of combined oral contraceptives
c) Prior pelvic inflammatory disease (PID)
d) Endometrial hyperplasia
e) Uterine fibroids

18. What is the first-line medical treatment for an unruptured ectopic pregnancy?

a) Misoprostol
b) Methotrexate
c) Mifepristone
d) GnRH agonist
e) Tamoxifen

19. Which condition presents with sudden severe pelvic pain and absent Doppler flow on ultrasound?

a) Ruptured ectopic pregnancy
b) Ovarian torsion
c) Endometriosis
d) Pelvic abscess
e) Uterine fibroids

20. The presence of free fluid in the pouch of Douglas on ultrasound suggests:

a) Normal ovulation
b) Ovarian torsion
c) Ectopic pregnancy rupture
d) Uterine fibroids
e) Polycystic ovarian syndrome

21. Which of the following is NOT a risk factor for ovarian torsion?

a) Large ovarian cyst
b) Ovarian hyperstimulation syndrome
c) Pregnancy
d) Menopause
e) High estrogen levels

22. What is the primary concern in ovarian torsion?

a) Infection
b) Hemorrhage
c) Ischemia and necrosis
d) Perforation
e) Adhesion formation

23. Which of the following is a first-line surgical treatment for ovarian torsion?

a) Laparotomy with oophorectomy
b) Laparoscopic detorsion with ovarian preservation
c) Uterine artery embolization
d) Endometrial ablation
e) Myomectomy

24. Which of the following ultrasound findings is characteristic of ovarian torsion?

a) Thickened endometrium
b) Absence of intrauterine pregnancy
c) Enlarged ovary with reduced or absent blood flow
d) Free fluid with multiple septations
e) Multiple small antral follicles

25. What is the main long-term consequence of repeated ovarian torsion?

a) Increased risk of ovarian cancer
b) Chronic pelvic pain and infertility
c) Endometrial hyperplasia
d) Uterine atony
e) Vulvovaginal atrophy

26. Which of the following conditions is most likely to present with hemodynamic instability?

a) Ovarian torsion
b) Ruptured ectopic pregnancy
c) Uncomplicated corpus luteum cyst
d) Polycystic ovarian syndrome (PCOS)
e) Endometriosis

27. Which of the following is the most common differential diagnosis for ruptured ectopic pregnancy?

a) Acute appendicitis
b) Ovarian torsion

c) Urinary tract infection
d) Endometriosis
e) Pelvic inflammatory disease

28. What is the main goal of methotrexate therapy in the management of ectopic pregnancy?

a) Promote implantation in the uterus
b) Induce ovulation
c) Prevent rupture by stopping trophoblastic growth
d) Stimulate uterine contractions
e) Reduce hemorrhage risk in placenta previa

29. Which clinical finding strongly suggests hemorrhagic shock due to ruptured ectopic pregnancy?

a) Hypertension and oliguria
b) Bradycardia and facial flushing
c) Hypotension, tachycardia, and pallor
d) Fever and elevated white blood cell count
e) Edema and proteinuria

30. In ovarian torsion, what is the most critical factor determining ovarian viability?

a) Duration of torsion before surgical intervention
b) Size of the ovarian cyst
c) Number of previous torsion episodes
d) Estrogen levels at the time of torsion
e) Patient's parity

Situational tasks:

Case 1

A **27-year-old woman** presents to the emergency department with **severe lower abdominal pain on the right side**, which started suddenly a few hours ago.

History: No previous surgeries, regular menstrual cycles, sexually active with contraception.

Gynecological examination: Right lower quadrant tenderness, rebound tenderness present.

Transvaginal ultrasound: Enlarged right ovary with no Doppler blood flow.

Question 1. What is the most likely diagnosis?

a) Appendicitis
b) Ovarian torsion
c) Ruptured ectopic pregnancy
d) Endometriosis
e) Diverticulitis

Question 2. What is the best initial management?

a) Emergency laparoscopic detorsion
b) IV fluids and observation
c) Methotrexate therapy
d) Broad-spectrum antibiotics
e) Hormonal therapy

Question 3. What is a common complication if untreated?

a) Ovarian necrosis
b) Uterine rupture
c) Peritonitis
d) Tubal blockage
e) Sepsis

Case 2

A **23-year-old woman** presents with **sudden lower abdominal pain and dizziness**. She reports a **delayed menstrual period** by 6 weeks.

History: Sexually active, no history of sexually transmitted infections (STIs).

Physical examination: Pale, tachycardic (HR 110 bpm), and hypotensive (BP 90/60 mmHg).

Urine pregnancy test: Positive.

Transvaginal ultrasound: No intrauterine pregnancy, free fluid in the pouch of Douglas.

Question 1. What is the most likely diagnosis?

a) Ruptured ectopic pregnancy
b) Ovarian torsion
c) Acute appendicitis
d) Ovarian cyst rupture
e) Pelvic inflammatory disease

Question 2. What is the most appropriate management?

a) Immediate surgical intervention (laparoscopic or open surgery)

b) Expectant management
c) Methotrexate therapy
d) Endometrial biopsy
e) Broad-spectrum IV antibiotics

Question 3. What is the primary risk factor for this condition?

a) Previous pelvic inflammatory disease
b) Polycystic ovarian syndrome
c) Endometriosis
d) Recent miscarriage
e) Family history of ectopic pregnancy

Case 3

A **30-year-old woman** presents with **sudden, severe unilateral lower abdominal pain** that started after intense physical activity.

History: No significant gynecological history, regular menstrual cycles.

Gynecological examination: Moderate lower abdominal tenderness without peritoneal signs.

Ultrasound: Normal uterus, corpus luteum hemorrhage in the right ovary, no free fluid in the pelvis.

Question 1. What is the most likely diagnosis?

a) Ovarian apoplexy
b) Ectopic pregnancy
c) Ovarian torsion
d) Ruptured ovarian cyst
e) Acute appendicitis

Question 2. What is the best initial treatment approach?

a) Pain management and observation
b) Emergency laparotomy
c) IV antibiotics
d) Hormonal therapy
e) Laparoscopic oophorectomy

Question 3. What is the most significant complication if misdiagnosed?

a) Hemoperitoneum
b) Infertility
c) Chronic pelvic pain
d) Tubal blockage
e) Sepsis

Case 4

A **19-year-old woman** presents with **sharp left-sided lower abdominal pain and nausea** that started gradually over 12 hours.

History: No history of pregnancy or gynecological disorders.

Gynecological examination: Left adnexal tenderness, mild guarding.

Ultrasound: Left ovarian cyst measuring 6 cm with torsion of the pedicle.

Question 1. What is the most likely diagnosis?

a) Ruptured ovarian cyst
b) Ovarian torsion
c) Pelvic inflammatory disease
d) Ectopic pregnancy
e) Endometriosis

Question 2. What is the best treatment approach?

a) Emergency laparoscopic detorsion
b) Oral contraceptive therapy
c) Broad-spectrum antibiotics
d) Hormonal therapy
e) Expectant management

Question 3. What is a risk factor for this condition?

a) Large ovarian cysts
b) History of cesarean section
c) Hypertension
d) Family history of ovarian cancer
e) Nulliparity

Case 5

A **32-year-old woman** presents with **sudden, intense lower abdominal pain and fainting episodes.**

History: Last menstrual period was 5 weeks ago, previous history of pelvic inflammatory disease (PID).

Gynecological examination: Hypotensive (BP 85/55 mmHg), severe tenderness, positive cervical motion tenderness.

Transvaginal ultrasound: Ruptured left ectopic pregnancy with hemoperitoneum.

Question 1. What is the immediate next step?

a) Emergency surgical intervention

b) Methotrexate therapy

c) Observation with serial β-hCG

d) Endometrial biopsy

e) Broad-spectrum IV antibiotics

Question 2. What is the most significant long-term complication?

a) Infertility

b) Uterine rupture

c) Recurrent urinary tract infections

d) Chronic pelvic pain

e) Secondary amenorrhea

Question 3. Which diagnostic test is most useful for confirming the condition?

a) Transvaginal ultrasound

b) Hysterosalpingography

c) Serum CA-125

d) Pap smear

e) MRI of the pelvis

Case 6

A **28-year-old woman** presents with **sudden lower abdominal pain and light vaginal bleeding**. She reports a **delayed period** by 7 weeks.

History: Previously diagnosed with **pelvic inflammatory disease (PID).**

Physical examination: Pale, tachycardic (HR 120 bpm), and hypotensive (BP 85/50 mmHg).

Urine pregnancy test: Positive.

Transvaginal ultrasound: No intrauterine pregnancy, complex adnexal mass, free fluid in the pelvis.

Question 1. What is the most likely diagnosis?

a) Ruptured corpus luteum cyst

b) Ovarian torsion

c) Ruptured ectopic pregnancy

d) Appendicitis

e) Endometriosis

Question 2. What is the next step in management?

a) IV fluids and serial β-hCG monitoring

b) Emergency laparotomy or laparoscopy

c) Methotrexate therapy

d) Broad-spectrum IV antibiotics

e) Blood transfusion and expectant management

Question 3. What is a major complication if treatment is delayed?

a) Hemorrhagic shock

b) Ovarian failure

c) Uterine rupture

d) Secondary amenorrhea

e) Chronic pelvic inflammatory disease

Case 7

A **24-year-old woman** presents with **acute right lower quadrant pain, nausea, and vomiting** for the past 6 hours.

History: No history of sexually transmitted infections (STIs), last menstrual cycle was normal.

Gynecological examination: Severe right adnexal tenderness, no vaginal discharge.

Transvaginal ultrasound: Right ovarian cyst measuring 7 cm with no Doppler blood flow.

Question 1. What is the most likely diagnosis?

a) Appendicitis

b) Ovarian torsion

c) Ruptured ectopic pregnancy

d) Pelvic inflammatory disease

e) Endometrioma

Question 2. What is the preferred initial treatment?

a) Broad-spectrum IV antibiotics

b) Immediate laparoscopic detorsion

c) Hormonal therapy

d) Pain management and observation

e) Expectant management with serial ultrasound

Question 3. What is the most significant risk if left untreated?

a) Peritonitis

b) Tubal blockage

c) Ovarian necrosis
d) Infertility
e) Sepsis

Case 8

A **31-year-old woman** presents with **sudden, severe lower abdominal pain** after lifting a heavy object.

History: No prior gynecological conditions, regular cycles.

Gynecological examination: Localized lower abdominal tenderness, no guarding.

Transvaginal ultrasound: A 5 cm hemorrhagic ovarian cyst with free fluid in the pelvis.

Question 1. What is the most likely diagnosis?

a) Ovarian apoplexy
b) Ectopic pregnancy
c) Ovarian torsion
d) Endometriosis
e) Ruptured appendix

Question 2. What is the best initial management?

a) IV fluids and blood transfusion
b) Pain management and observation
c) Emergency laparotomy
d) Broad-spectrum antibiotics
e) Hormonal therapy

Question 3. What is a complication of untreated ovarian apoplexy?

a) Hemoperitoneum
b) Ovarian hyperstimulation syndrome
c) Uterine rupture
d) Hydrosalpinx
e) Cervical stenosis

Case 9

A **22-year-old woman** presents with **severe left-sided lower abdominal pain and fainting episodes**.

History: Reports using **intrauterine device (IUD) for contraception**.

Gynecological examination: Severe left adnexal tenderness, positive cervical motion tenderness.

Serum β-hCG: 1500 IU/L, no intrauterine pregnancy detected on ultrasound.

Question 1. What is the most likely diagnosis?

a) Tubo-ovarian abscess
b) Ruptured ovarian cyst
c) Ectopic pregnancy
d) Endometrial polyp
e) Appendicitis

Question 2. What is the preferred management if the patient is hemodynamically stable?

a) Methotrexate therapy
b) Immediate laparotomy
c) Expectant management
d) IV antibiotics
e) Endometrial biopsy

Question 3. What is the strongest risk factor for this condition?

a) History of pelvic inflammatory disease
b) Endometriosis
c) Hypertension
d) Nulliparity
e) Recent miscarriage

Case 10

A **29-year-old woman** presents with **intermittent lower abdominal pain and nausea** for 24 hours.

History: Recently diagnosed with **a 6 cm ovarian cyst** on ultrasound.

Gynecological examination: Tender left adnexa with palpable mass.

Transvaginal ultrasound: Enlarged ovary with twisted pedicle and no blood flow on Doppler.

Question 1. What is the most likely diagnosis?

a) Ovarian cyst rupture
b) Pelvic inflammatory disease
c) Ovarian torsion
d) Ectopic pregnancy
e) Ureteric colic

Question 2. What is the next best step in management?

a) Laparoscopic detorsion
b) NSAIDs and observation
c) Methotrexate
d) Hormonal therapy
e) IV antibiotics

Question 3. What is a predisposing factor for this condition?

a) Large ovarian cysts
b) Pelvic inflammatory disease
c) Multiparity
d) Diabetes mellitus
e) Prior cesarean section

IX TOPIC INFERTILITY. DEFINITION, CAUSES, INVESTIGATIONS, TREATMENT, ASSISTED REPRODUCTIVE TECHNIQUES

Test questions:

1. How is infertility defined?

a) Inability to conceive after 3 months of unprotected intercourse

b) Inability to conceive after 6 months of unprotected intercourse

c) Inability to conceive after 12 months of unprotected intercourse

d) Inability to conceive after 24 months of unprotected intercourse

e) Inability to conceive after 36 months of unprotected intercourse

2. Primary infertility is best defined as:

a) Failure to conceive after one miscarriage

b) Inability to conceive after one year of unprotected intercourse without any prior pregnancies

c) Failure to carry a pregnancy to term

d) Pregnancy loss in the first trimester

e) Conception occurring but ending in stillbirth

3. Which of the following is NOT a cause of female infertility?

a) Polycystic ovarian syndrome (PCOS)

b) Endometriosis

c) Klinefelter syndrome

d) Tubal obstruction

e) Premature ovarian insufficiency

4. Which of the following is a male factor cause of infertility?

a) Hyperprolactinemia

b) Müllerian agenesis

c) Asherman's syndrome

d) Bicornuate uterus

e) Endometriosis

5. The most common cause of anovulatory infertility is:

a) Uterine fibroids

b) Polycystic ovarian syndrome (PCOS)

c) Pelvic inflammatory disease (PID)

d) Hypothyroidism

e) Müllerian anomalies

6. Which investigation is first-line for assessing ovarian reserve?

a) Anti-Müllerian hormone (AMH)

b) Beta-hCG

c) CA-125

d) Carcinoembryonic antigen (CEA)

e) Fasting glucose levels

7. What is the first-line imaging technique for evaluating female infertility?

a) X-ray

b) Hysterosalpingography (HSG)

c) MRI of the pelvis

d) Transabdominal ultrasound

e) PET scan

8. Semen analysis evaluates all of the following EXCEPT:

a) Sperm concentration

b) Sperm morphology

c) Sperm motility

d) Semen volume

e) Testosterone levels

9. The most common tubal cause of infertility is:

a) Polycystic ovarian syndrome (PCOS)

b) Endometriosis

c) Pelvic inflammatory disease (PID)

d) Premature ovarian insufficiency

e) Hypothalamic dysfunction

10. Which hormone is commonly used to induce ovulation in women with anovulatory infertility?

a) Estradiol

b) Progesterone

c) Clomiphene citrate

d) Insulin

e) Dexamethasone

11. Which assisted reproductive technique involves the direct injection of a single sperm into an egg?

a) In vitro fertilization (IVF)

b) Gamete intrafallopian transfer (GIFT)

c) Intracytoplasmic sperm injection (ICSI)

d) Zygote intrafallopian transfer (ZIFT)

e) Artificial insemination

12. A hysterosalpingography (HSG) is primarily used to assess:

a) Endometrial thickness

b) Tubal patency

c) Ovarian reserve

d) Cervical length

e) Sperm motility

13. Which of the following is a contraindication for in vitro fertilization (IVF)?

a) Unexplained infertility

b) Ovarian insufficiency

c) Male factor infertility

d) Bilateral tubal occlusion

e) Endometriosis

14. Which of the following is a major risk associated with ovulation induction therapy?

a) Ovarian hyperstimulation syndrome (OHSS)

b) Hypothyroidism

c) Increased risk of uterine rupture

d) Endometriosis

e) Cervical insufficiency

15. Which of the following conditions is commonly associated with recurrent pregnancy loss?

a) Endometrial carcinoma

b) Asherman's syndrome

c) Ovarian hyperstimulation syndrome

d) Uterine fibroids

e) Cervical dysplasia

16. What is the most commonly used gonadotropin-releasing hormone (GnRH) agonist for controlled ovarian stimulation?

a) Clomiphene citrate

b) Leuprolide

c) Estradiol

d) Bromocriptine

e) Metformin

17. Which lifestyle modification can improve fertility outcomes?

a) High-fat diet

b) Regular exercise and weight management

c) Increased alcohol intake

d) Smoking cessation only
e) Prolonged estrogen therapy

18. What is the most common cause of unexplained infertility?

a) Tubal disease
b) Male factor infertility
c) Ovulatory dysfunction
d) Endometrial polyps
e) Poor egg quality

19. Which procedure can be performed to assess the uterine cavity for structural abnormalities?

a) Laparoscopy
b) Hysteroscopy
c) Hysterosalpingography
d) Endometrial biopsy
e) Pap smear

20. Which test is used to evaluate cervical factor infertility?

a) Endometrial biopsy
b) Postcoital test
c) CA-125
d) Laparoscopy
e) Karyotyping

21. Which condition is most commonly associated with premature ovarian insufficiency?

a) Turner syndrome
b) Polycystic ovarian syndrome (PCOS)
c) Hypothyroidism
d) Cervical stenosis
e) Endometrial hyperplasia

22. What is the most common maternal risk of multiple pregnancies following IVF?

a) Hypertension
b) Placental abruption
c) Preterm labor
d) Diabetes mellitus
e) Uterine rupture

23. Which of the following is NOT a common cause of male infertility?

a) Varicocele

b) Cryptorchidism
c) Hyperprolactinemia
d) Pelvic inflammatory disease (PID)
e) Klinefelter syndrome

24. Which procedure involves retrieval of mature oocytes from the ovaries followed by laboratory fertilization?

a) Gamete intrafallopian transfer (GIFT)
b) Zygote intrafallopian transfer (ZIFT)
c) In vitro fertilization (IVF)
d) Intracytoplasmic sperm injection (ICSI)
e) Artificial insemination

25. Which of the following is NOT an assisted reproductive technique?

a) In vitro fertilization (IVF)
b) Intrauterine insemination (IUI)
c) Intracytoplasmic sperm injection (ICSI)
d) Hysterosalpingography (HSG)
e) Gamete intrafallopian transfer (GIFT)

26. What is the recommended first-line treatment for anovulatory women with polycystic ovarian syndrome (PCOS) who desire pregnancy?

a) Clomiphene citrate
b) Leuprolide
c) Bromocriptine
d) Progesterone therapy
e) Hysterectomy

27. Which assisted reproductive technique has the highest success rate per cycle?

a) Artificial insemination
b) Gamete intrafallopian transfer (GIFT)
c) In vitro fertilization (IVF)
d) Laparoscopic ovarian drilling
e) Hysteroscopic resection

28. Which of the following is a common complication of ovarian stimulation during IVF?

a) Ectopic pregnancy
b) Ovarian hyperstimulation syndrome (OHSS)
c) Uterine rupture

d) Endometrial carcinoma
e) Cervical stenosis

29. Which hormone is commonly measured on day 3 of the menstrual cycle to assess ovarian reserve?

a) Beta-hCG
b) Anti-Müllerian hormone (AMH)
c) Follicle-stimulating hormone (FSH)
d) Progesterone
e) Prolactin

30. Which of the following genetic conditions is a known cause of male infertility?

a) Turner syndrome
b) Klinefelter syndrome
c) Mayer-Rokitansky-Küster-Hauser syndrome
d) Androgen insensitivity syndrome
e) Polycystic ovarian syndrome (PCOS)

Situational tasks:

Case 1

A **32-year-old woman** presents with **inability to conceive after 18 months of regular, unprotected intercourse**.

History: Regular menstrual cycles, normal BMI, no significant past medical history.

Partner: 35 years old, normal semen analysis.

Gynecological examination: No abnormalities detected.

Question 1. What is the most likely cause of her infertility?

a) Polycystic ovarian syndrome (PCOS)
b) Tubal factor infertility
c) Unexplained infertility
d) Endometriosis
e) Premature ovarian insufficiency

Question 2. What is the best next step in evaluation?

a) Hysterosalpingography (HSG)
b) Laparoscopy
c) Ovarian biopsy
d) Genetic testing
e) Endometrial biopsy

Question 3. What is the best initial treatment for unexplained infertility?

a) Clomiphene citrate with timed intercourse
b) Laparoscopic ovarian drilling
c) In vitro fertilization (IVF)
d) Uterine artery embolization
e) Hysteroscopy

Case 2

A **29-year-old woman** presents with **irregular menstrual cycles and hirsutism**. She and her husband have been trying to conceive for **two years**.

History: Diagnosed with **polycystic ovarian syndrome (PCOS)**, BMI 32 kg/m².

Hormonal tests: Elevated LH/FSH ratio, normal prolactin, normal TSH.

Ultrasound: Multiple small peripheral ovarian follicles.

Question 1. What is the most likely cause of her infertility?

a) Anovulation due to PCOS
b) Tubal blockage
c) Endometriosis
d) Cervical stenosis
e) Hyperprolactinemia

Question 2. What is the first-line treatment to induce ovulation?

a) Clomiphene citrate
b) Metformin alone
c) Gonadotropin injections
d) Laparoscopic ovarian drilling
e) Hysteroscopy

Question 3. What lifestyle modification is strongly recommended to improve fertility outcomes in this patient?

a) Weight loss
b) Increased caffeine intake
c) High-protein diet
d) Pelvic floor exercises
e) Prolonged bed rest after intercourse

Case 3

A **35-year-old woman** presents with **severe dysmenorrhea and deep dyspareunia**. She has been trying to conceive for **three years**.

History: G0P0, regular menstrual cycles, prior laparoscopic diagnosis of **endometriosis**.

Transvaginal ultrasound: No visible ovarian cysts.

Question 1. What is the most likely cause of her infertility?

a) Endometrial hyperplasia
b) Uterine fibroids
c) Endometriosis-related tubal factor infertility
d) Cervical stenosis
e) Hypothalamic amenorrhea

Question 2. What is the best treatment option for her infertility?

a) Laparoscopic removal of endometriotic lesions
b) Clomiphene citrate with timed intercourse
c) Intrauterine insemination (IUI)
d) IVF
e) Hysteroscopic polypectomy

Question 3. What is a long-term complication of untreated endometriosis?

a) Ovarian cancer
b) Hypothyroidism
c) Cervical incompetence
d) Hydrosalpinx
e) Chronic pelvic pain

Case 4

A **28-year-old woman** presents with **primary infertility** and **no significant gynecological symptoms**.

History: Normal menstrual cycles, **history of tuberculosis 5 years ago**.

Hysterosalpingography (HSG): Bilateral tubal blockage.

Question 1. What is the most likely cause of her infertility?

a) Endometriosis
b) Pelvic inflammatory disease (PID)
c) Genital tuberculosis
d) Uterine fibroids
e) Asherman syndrome

Question 2. What is the best next step in management?

a) In vitro fertilization (IVF)
b) Hysteroscopy with adhesiolysis
c) Long-term antibiotic therapy
d) Clomiphene citrate
e) Tuboplasty

Question 3. What is the best way to confirm the presence of genital tuberculosis?

a) Endometrial biopsy
b) Serum CA-125
c) Pap smear
d) Pelvic MRI
e) Transvaginal ultrasound

Case 5

A **39-year-old woman** presents with **difficulty conceiving** for three years.

History: Regular menstrual cycles, **prior two second-trimester miscarriages.**

Hysteroscopy findings: Uterine septum.

Question 1. What is the most likely cause of her infertility?

a) Uterine septum
b) Anovulation
c) Polycystic ovarian syndrome
d) Cervical stenosis
e) Tubal occlusion

Question 2. What is the best treatment approach for her condition?

a) Hysteroscopic metroplasty
b) Clomiphene citrate
c) IVF with embryo transfer
d) Tuboplasty
e) Gonadotropin therapy

Question 3. What is the most serious complication if her condition remains untreated?

a) Recurrent pregnancy loss
b) Ectopic pregnancy
c) Ovarian hyperstimulation syndrome

d) Uterine rupture
e) Chronic anovulation

Case 6

A **33-year-old woman** presents with **inability to conceive for two years.**

History: Regular menstrual cycles, no known chronic conditions.

Partner: 36-year-old male, mild oligospermia on semen analysis.

Hormonal tests: Normal FSH, LH, prolactin, and thyroid function.

Question 1. What is the most likely cause of infertility in this couple?

a) Ovulatory dysfunction
b) Tubal factor infertility
c) Male factor infertility
d) Uterine fibroids
e) Endometriosis

Question 2. What is the best initial management approach?

a) Intrauterine insemination (IUI)
b) In vitro fertilization (IVF)
c) Laparoscopic ovarian drilling
d) Hysteroscopy
e) Expectant management

Question 3. What lifestyle change could help improve sperm quality?

a) Reducing alcohol intake
b) Increased soy protein intake
c) Avoiding folic acid supplements
d) Increased caffeine consumption
e) Wearing tight underwear

Case 7

A **28-year-old woman** presents with **irregular cycles and difficulty conceiving.**

History: Diagnosed with hyperprolactinemia one year ago, on bromocriptine.

Hormonal profile: Elevated prolactin, normal FSH and LH.

MRI brain: No pituitary adenoma.

Question 1. What is the most likely reason for her infertility?

a) Anovulation due to hyperprolactinemia

b) Endometriosis

c) Tubal factor infertility

d) Ovarian hyperstimulation syndrome

e) Asherman's syndrome

Question 2. What is the next step in treatment?

a) Adjusting dopamine agonist therapy

b) IVF

c) Laparoscopic ovarian drilling

d) Hysterosalpingography

e) Clomiphene citrate

Question 3. What symptom is most commonly associated with hyperprolactinemia?

a) Galactorrhea

b) Hot flashes

c) Pelvic pain

d) Menorrhagia

e) Deepening of voice

Case 8

A **26-year-old woman** presents with **primary infertility.**

History: Irregular periods, central obesity, and acne.

Hormonal tests: Elevated LH/FSH ratio, normal prolactin, normal thyroid function.

Transvaginal ultrasound: Multiple small follicles arranged peripherally in both ovaries.

Question 1. What is the most likely cause of her infertility?

a) Turner syndrome

b) Polycystic ovarian syndrome (PCOS)

c) Endometriosis

d) Pelvic inflammatory disease

e) Luteal phase defect

Question 2. What is the first-line pharmacologic treatment?

a) Letrozole

b) GnRH agonists

c) Metformin alone
d) Uterine artery embolization
e) Clomiphene citrate

Question 3. What long-term complication is associated with PCOS?

a) Type 2 diabetes mellitus
b) Ovarian cancer
c) Uterine rupture
d) Cervical incompetence
e) Breast cancer

Case 9

A **30-year-old woman** presents with **chronic pelvic pain and painful intercourse**.

History: Diagnosed with **mild endometriosis** via **laparoscopy one year ago**.

Gynecological examination: Normal uterus, mild adnexal tenderness bilaterally.

Question 1. What is the most likely cause of her infertility?

a) Tubal blockage due to endometriosis
b) Anovulation
c) Cervical stenosis
d) Asherman's syndrome
e) Hyperprolactinemia

Question 2. What is the preferred management approach?

a) IVF
b) Hysterosalpingography
c) Clomiphene citrate
d) Laparoscopic ovarian drilling
e) Metformin therapy

Question 3. What is a common symptom of endometriosis?

a) Cyclic pelvic pain
b) Heavy menstrual bleeding
c) Galactorrhea
d) Hot flashes
e) Chronic urinary tract infections

Case 10

A **40-year-old woman** presents with **difficulty conceiving for four years.**

History: No known medical conditions, regular menstrual cycles.

Hysterosalpingography (HSG): Unilateral tubal blockage.

Question 1. What is the best next step in management?

a) IVF
b) Tuboplasty
c) Clomiphene citrate
d) Hysteroscopy
e) Laparoscopy

Question 2. What is a common cause of tubal infertility?

a) Prior pelvic inflammatory disease
b) Hypothyroidism
c) Prolactinoma
d) Cervical stenosis
e) Uterine septum

Question 3. What test is commonly used to assess tubal patency?

a) Hysterosalpingography (HSG)
b) Serum anti-Müllerian hormone
c) MRI pelvis
d) Endometrial biopsy
e) Pap smear

X TOPIC BIRTH CONTROL AND MEDICAL TERMINATION OF PREGNANCY. DEFINITION OF CONTRACEPTION. METHODS OF CONTRACEPTION. MALE STERILIZATION. FEMALE STERILIZATION. MIRENA VERSUS TUBECTOMY. CONTRACEPTION FOR ADOLESCENTS. PAROUS WOMEN. LACTATING WOMAN

Test questions:

1. What is the primary goal of contraception?
a) To improve menstrual cycle regularity
b) To prevent unintended pregnancies
c) To enhance reproductive hormones
d) To reduce the risk of uterine cancer
e) To promote lactation

2. Which of the following is a permanent method of contraception?
a) Oral contraceptive pills
b) Copper intrauterine device (IUD)
c) Tubal ligation
d) Barrier methods
e) Progesterone injections

3. Which of the following is a long-acting reversible contraceptive (LARC)?
a) Emergency contraception
b) Depo-Provera (DMPA)
c) Male sterilization
d) Tubectomy
e) Combined oral contraceptive pills

4. What is the primary mechanism of action of progestin-only pills?
a) Inhibition of ovulation
b) Increasing cervical mucus viscosity
c) Endometrial thinning
d) All of the above
e) None of the above

5. Which contraceptive method provides the highest effectiveness in preventing pregnancy?

a) Withdrawal method
b) Male condom
c) Intrauterine device (IUD)
d) Tubal ligation
e) Diaphragm

6. What is the main advantage of the levonorgestrel-releasing intrauterine system (Mirena) over tubectomy?

a) Irreversible contraception
b) Does not require surgical intervention
c) Prevents sexually transmitted infections (STIs)
d) Increases fertility after removal
e) More effective than sterilization

7. What is the most common surgical method of female sterilization?

a) Hysterectomy
b) Tubectomy
c) Oophorectomy
d) Endometrial ablation
e) Salpingectomy

8. Male sterilization (vasectomy) involves the surgical interruption of which structure?

a) Vas deferens
b) Epididymis
c) Seminal vesicles
d) Urethra
e) Ejaculatory duct

9. Which contraceptive method is preferred for lactating women?

a) Combined oral contraceptive pills
b) Progesterone-only pills
c) Copper intrauterine device (IUD)
d) Male condoms
e) Diaphragm

10. What is the most effective form of emergency contraception?

a) Levonorgestrel (Plan B)
b) Copper IUD insertion
c) Ulipristal acetate

d) Combined oral contraceptives (Yuzpe method)
e) Barrier methods

11. What is the primary mechanism of action of the copper intrauterine device (IUD)?

a) Preventing sperm motility and implantation
b) Suppressing ovulation
c) Increasing estrogen levels
d) Enhancing progesterone production
e) Thickening cervical mucus

12. What is the primary benefit of hormonal IUDs compared to copper IUDs?

a) No need for surgical removal
b) No effect on menstrual cycles
c) Reduction in dysmenorrhea and menstrual bleeding
d) Lower risk of ectopic pregnancy
e) Higher risk of infection

13. Which form of contraception is most recommended for adolescents?

a) Male condoms
b) Hormonal IUDs
c) Tubectomy
d) Vasectomy
e) Emergency contraception

14. Which hormonal contraceptive method has the highest association with weight gain?

a) Progestin-only pills
b) Depo-Provera (DMPA) injection
c) Levonorgestrel IUD
d) Copper IUD
e) Male condoms

15. What is a contraindication for combined oral contraceptive pills (COCs)?

a) Smoking in women >35 years old
b) Nulliparity
c) Lactation
d) High estrogen levels
e) History of fibroids

16. Which contraceptive method provides dual protection against both pregnancy and sexually transmitted infections (STIs)?

a) Copper IUD
b) Combined oral contraceptive pills
c) Male and female condoms
d) Tubal ligation
e) Levonorgestrel IUD

17. What is a potential side effect of the copper IUD?

a) Amenorrhea
b) Increased menstrual bleeding and dysmenorrhea
c) Decreased libido
d) Suppressed ovulation
e) Increased estrogen levels

18. Which sterilization method is recommended for women at high risk of ovarian cancer?

a) Tubal ligation
b) Bilateral salpingectomy
c) Copper IUD insertion
d) Endometrial ablation
e) Hysteroscopic sterilization

19. Which of the following is NOT a barrier method of contraception?

a) Diaphragm
b) Cervical cap
c) Male condom
d) Female sterilization
e) Spermicidal agents

20. Which method is best suited for postpartum contraception?

a) Combined oral contraceptive pills
b) Copper IUD
c) Tubectomy
d) Mirena IUD
e) Male condom

21. What is the most common complication of female sterilization (tubal ligation)?

a) Ovarian hyperstimulation syndrome
b) Ectopic pregnancy
c) Endometriosis

d) Fibroids
e) Cervical stenosis

22. Which method is considered permanent contraception for men?

a) Vasectomy
b) Progestin implant
c) Intrauterine device (IUD)
d) Male condom
e) Coitus interruptus

23. The lactational amenorrhea method (LAM) is most effective when:

a) The baby is older than six months
b) The woman has resumed menstruation
c) The baby is exclusively breastfed
d) Supplementary feeding has started
e) The baby is weaned

24. Which emergency contraceptive method is effective within five days of unprotected intercourse?

a) Combined oral contraceptive pills
b) Copper IUD insertion
c) Levonorgestrel (Plan B)
d) Male condom
e) Progestin-only pills

25. What is a major disadvantage of vasectomy compared to female sterilization?

a) Vasectomy is less effective
b) Vasectomy is more invasive
c) Vasectomy does not provide immediate sterility
d) Vasectomy has a higher risk of ectopic pregnancy
e) Vasectomy leads to hormonal imbalances

26. Which method of contraception is best suited for women with a history of thromboembolism?

a) Combined oral contraceptives
b) Copper IUD
c) Hormonal IUD
d) Depo-Provera
e) Vaginal ring

27. What is a significant benefit of Mirena compared to other contraceptive methods?

a) Provides contraception for up to 10 years
b) Reduces heavy menstrual bleeding
c) Is more effective than tubectomy
d) Prevents sexually transmitted infections
e) Enhances ovulation

28. What is the most common side effect of progestin-only contraceptives?

a) Hypertension
b) Irregular menstrual bleeding
c) Increased bone density
d) Weight loss
e) Hot flashes

29. Which contraceptive method is contraindicated in women with active pelvic inflammatory disease (PID)?

a) Copper intrauterine device (IUD)
b) Male condoms
c) Progestin-only pills
d) Combined oral contraceptive pills
e) Diaphragm

30. Which of the following methods of contraception is most effective for women with irregular menstrual cycles?

a) Withdrawal method
b) Rhythm method
c) Copper IUD
d) Natural family planning

Situational tasks:

Case 1

A **22-year-old nulliparous woman** presents seeking **long-term contraception**. She is sexually active but does not want to conceive for the next 5 years.

History: No chronic conditions, regular menstrual cycles.

Gynecological examination: Normal findings.

Question 1. What is the most appropriate contraceptive method for this patient?

a) Copper intrauterine device (IUD)
b) Combined oral contraceptive pills
c) Female sterilization
d) Emergency contraception
e) Diaphragm

Question 2. What is a common side effect of the chosen contraceptive method?

a) Irregular bleeding
b) Ovarian hyperstimulation syndrome
c) Increased risk of endometrial cancer
d) Breast tenderness
e) Increased risk of ovarian cysts

Question 3. Which contraceptive method is not recommended for adolescents?

a) Combined oral contraceptives
b) Copper IUD
c) Progestin-only implants
d) Male condoms
e) Depot medroxyprogesterone acetate (DMPA)

Case 2

A **35-year-old multiparous woman** comes for **permanent contraception** after having three children.

History: No significant medical issues, no desire for future pregnancies.

Gynecological examination: Normal uterus, no pelvic abnormalities.

Question 1. What is the most effective permanent contraceptive method for her?

a) Tubal ligation (Tubectomy)
b) Copper IUD
c) Combined oral contraceptive pills
d) Emergency contraception
e) Natural family planning

Question 2. How does tubal ligation primarily prevent pregnancy?

a) Prevents sperm motility

b) Thickens cervical mucus
c) Inhibits ovulation
d) Blocks the fallopian tubes
e) Prevents implantation

Question 3. Compared to tubectomy, what is a major advantage of Mirena (Levonorgestrel IUD)?

a) Reduces menstrual bleeding
b) Provides lifetime contraception
c) Prevents sexually transmitted infections
d) Requires a surgical procedure
e) Increases fertility after removal

Case 3

A **29-year-old woman, 3 months postpartum, is exclusively breastfeeding** and is seeking contraception.

History: No known allergies or chronic illnesses.

Gynecological examination: Normal findings.

Question 1. What is the most suitable contraceptive option?

a) Progestin-only pills (Mini-pill)
b) Combined oral contraceptives
c) Tubectomy
d) Copper IUD
e) Male condoms

Question 2. Why are combined oral contraceptives not recommended for breastfeeding women?

a) They decrease milk supply
b) They increase the risk of uterine perforation
c) They increase the risk of ovarian cysts
d) They increase the risk of miscarriage
e) They do not provide effective contraception

Question 3. Which contraceptive method offers the longest duration of action?

a) Copper IUD
b) Depot medroxyprogesterone acetate (DMPA)
c) Levonorgestrel implant (Implanon/Nexplanon)
d) Male condoms
e) Vaginal ring

Case 4

A **17-year-old adolescent girl** comes to the clinic requesting contraception.

History: Sexually active, no prior pregnancies.

Gynecological examination: No abnormalities detected.

Question 1. What is the best contraceptive choice for this patient?

a) Male condoms and emergency contraception

b) Tubal ligation

c) Copper IUD

d) Hormonal intrauterine device

e) Periodic abstinence

Question 2. Why is combined oral contraception a good choice for this patient?

a) Regulates menstrual cycles

b) Prevents bacterial vaginosis

c) Eliminates the need for barrier methods

d) Increases fertility

e) Reduces the risk of endometrial cancer

Question 3. What is an important counseling point for adolescent contraception?

a) Dual protection (hormonal + barrier method) should be encouraged

b) Only long-acting reversible contraceptives (LARCs) should be offered

c) Contraceptive use is only necessary after the first pregnancy

d) Oral contraceptives permanently reduce fertility

e) Condoms alone are sufficient for preventing pregnancy and STIs

Case 5

A **40-year-old woman** presents with **unintended pregnancy at 6 weeks of gestation** and seeks medical termination of pregnancy (MTP).

History: No known medical conditions, desires permanent contraception after abortion.

Ultrasound findings: Intrauterine pregnancy, 6 weeks.

Question 1. What is the most appropriate method for medical abortion at this stage?

a) Mifepristone and misoprostol
b) Surgical dilation and curettage (D&C)
c) Hysterectomy
d) Methotrexate injection
e) Expectant management

Question 2. What is a contraindication to medical abortion?

a) Previous cesarean section
b) History of endometriosis
c) Ectopic pregnancy
d) Multiparity
e) Prior spontaneous miscarriage

Question 3. What contraceptive method can be immediately initiated post-abortion?

a) Intrauterine device (IUD)
b) Tubectomy
c) Combined oral contraceptive pills
d) Hormonal implant
e) All of the above

Case 6

A **38-year-old woman** presents for contraceptive counseling. She has **hypertension and a history of deep vein thrombosis (DVT)**. She does not wish to conceive in the future but does not want a permanent method of contraception.

History: Two previous vaginal deliveries, regular cycles.

Blood pressure: 150/90 mmHg.

Question 1. What is the most appropriate contraceptive option for this patient?

a) Copper intrauterine device (IUD)
b) Combined oral contraceptive pills
c) Depot medroxyprogesterone acetate (DMPA)
d) Hormonal vaginal ring
e) Male condom

Question 2. Why are combined oral contraceptives contraindicated in this patient?

a) Increased risk of venous thromboembolism
b) Increased risk of cervical cancer

c) Increased risk of uterine rupture
d) Increased risk of osteoporosis
e) Decreased contraceptive efficacy

Question 3. Which contraceptive method provides non-hormonal long-term contraception?

a) Copper IUD
b) Hormonal implant
c) Vaginal ring
d) Progestin-only pills
e) Emergency contraception

Case 7

A **30-year-old woman** has had two previous **C-sections** and does not want more children. She wants a **permanent** method of contraception.

History: No history of chronic illnesses, no known allergies.

Gynecological examination: Normal findings.

Question 1. What is the most appropriate contraceptive method?

a) Tubal ligation
b) Copper IUD
c) Combined oral contraceptive pills
d) Emergency contraception
e) Fertility awareness method

Question 2. What is an advantage of tubal ligation over intrauterine contraception?

a) Permanent contraception
b) Decreased risk of STIs
c) Increased bone density
d) Reduced incidence of ovarian cysts
e) No need for medical follow-up

Question 3. What is a common long-term consequence of tubal ligation?

a) Increased risk of ovarian cancer
b) Increased risk of uterine fibroids
c) Post-tubal ligation syndrome (irregular bleeding and pain)
d) Increased risk of hypertension
e) Increased risk of multiple pregnancies

Case 8

A **19-year-old woman** is sexually active and requests **a contraceptive method that also provides protection against sexually transmitted infections (STIs).**

History: No previous pregnancies, regular cycles.

Gynecological examination: Normal findings.

Question 1. What is the best contraceptive option for this patient?

a) Male condoms
b) Tubal ligation
c) Hormonal intrauterine device (IUD)
d) Periodic abstinence
e) Diaphragm

Question 2. Which contraceptive method provides the highest efficacy in preventing pregnancy?

a) Combined oral contraceptives
b) Male condoms
c) Copper IUD
d) Fertility awareness method
e) Withdrawal method

Question 3. What is a key counseling point regarding male condoms?

a) They provide **dual protection** (against pregnancy and STIs)
b) They are more effective than intrauterine contraception
c) They should not be used with hormonal contraception
d) They cause infertility with long-term use
e) They provide lifelong protection once inserted

Case 9

A **42-year-old woman** is diagnosed with **unwanted pregnancy at 7 weeks of gestation** and wishes to terminate the pregnancy.

History: No significant medical conditions, has two children, and wants permanent contraception after termination.

Ultrasound findings: Intrauterine pregnancy, 7 weeks gestation.

Question 1. What is the safest method for medical termination of pregnancy at this stage?

a) Mifepristone followed by misoprostol
b) Methotrexate injection
c) Hysterectomy
d) Expectant management
e) Laparoscopic salpingectomy

Question 2. What is the mechanism of action of mifepristone?

a) Progesterone receptor antagonist
b) Gonadotropin inhibitor

c) Estrogen receptor modulator
d) Endometrial thickener
e) Inhibitor of LH surge

Question 3. What is the recommended contraceptive method immediately after medical abortion?

a) Hormonal implant
b) Tubectomy
c) Fertility awareness method
d) Vaginal ring
e) Expectant management

Case 10

A **25-year-old breastfeeding woman** comes for contraceptive counseling. She is **3 months postpartum and exclusively breastfeeding**. She wants **an effective contraceptive method that will not interfere with lactation**.

History: No medical conditions, regular cycles before pregnancy.

Gynecological examination: Normal findings.

Question 1. What is the best contraceptive method for this patient?

a) Progestin-only pills
b) Combined oral contraceptives
c) Copper IUD
d) Fertility awareness method
e) Diaphragm

Question 2. Why are combined oral contraceptives not recommended for breastfeeding women?

a) They reduce breast milk production
b) They cause fetal malformations
c) They lead to early menopause
d) They increase the risk of urinary tract infections
e) They cause heavy menstrual bleeding

Question 3. Which long-acting reversible contraceptive method is also safe during breastfeeding?

a) Levonorgestrel IUD
b) Vaginal ring
c) Combined oral contraceptives
d) Emergency contraception
e) Male condoms

ANSWERS TO TEST QUESTIONS

Test Number	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7	Topic 8	Topic 9	Topic 10
Test 1	c	d	b	b	b	d	c	c	c	b
Test 2	a	e	b	c	c	c	c	a	b	c
Test 3	b	c	c	c	b	d	b	b	c	b
Test 4	b	c	a	c	e	b	b	a	a	d
Test 5	b	b	c	d	a	a	b	d	b	d
Test 6	c	b	a	b	a	e	c	a	a	b
Test 7	b	a	c	c	c	b	b	c	b	b
Test 8	d	b	c	a	c	d	c	b	e	a
Test 9	c	b	b	b	a	b	c	b	c	b
Test 10	b	b	c	d	b	c	b	c	c	b
Test 11	b	c	c	b	c	a	d	b	c	a
Test 12	c	b	a	b	b	c	a	c	b	c
Test 13	a	b	a	a	b	c	a	e	b	b
Test 14	c	b	b	b	b	b	b	c	a	b
Test 15	d	b	b	b	b	b	b	b	b	a
Test 16	b	b	c	a	b	b	c	c	b	c
Test 17	c	a	a	c	b	a	b	c	b	b
Test 18	b	b	a	b	a	c	b	b	c	b
Test 19	c	e	e	b	d	b	a	b	b	d
Test 20	b	a	b	e	c	d	c	c	b	b
Test 21	c	b	b	b	b	b	c	d	a	b
Test 22	c	b	b	a	b	b	e	c	c	a
Test 23	d	c	b	c	c	c	c	b	d	c
Test 24	b	a	a	b	b	b	c	c	c	b
Test 25	a	a	c	b	a	c	d	b	d	c
Test 26	c	d	c	b	b	c	b	b	a	b
Test 27	b	a	a	a	b	b	a	a	c	b
Test 28	a	c	b	a	a	b	c	c	b	b
Test 29	c	b	a	a	b	c	b	c	c	a
Test 30	a	a	a	d	d	b	c	a	b	c

ANSWERS TO SITUATIONAL TASKS

Topic	Case	Q1	Q2	Q3
1 Topic	Case 1	a	e	c
1 Topic	Case 2	a	e	b
1 Topic	Case 3	c	a	e
1 Topic	Case 4	c	a	b
1 Topic	Case 5	e	d	b
1 Topic	Case 6	a	a	a
1 Topic	Case 7	c	e	b
1 Topic	Case 8	a	a	a
1 Topic	Case 9	a	a	a
1 Topic	Case 10	a	a	a
2 Topic	Case 1	a	c	d
2 Topic	Case 2	c	c	a
2 Topic	Case 3	c	c	a
2 Topic	Case 4	b	a	a
2 Topic	Case 5	b	a	a
2 Topic	Case 6	b	c	a
2 Topic	Case 7	c	b	b
2 Topic	Case 8	a	a	a
2 Topic	Case 9	b	a	a
2 Topic	Case 10	a	b	a
3 Topic	Case 1	a	b	a
3 Topic	Case 2	b	a	a
3 Topic	Case 3	a	a	a
3 Topic	Case 4	a	a	a
3 Topic	Case 5	a	c	a
3 Topic	Case 6	d	a	c
3 Topic	Case 7	c	a	b
3 Topic	Case 8	a	a	a
3 Topic	Case 9	a	a	a
3 Topic	Case 10	a	b	a
4 Topic	Case 1	c	c	a
4 Topic	Case 2	b	b	c

4 Topic	Case 3	b	a	a
4 Topic	Case 4	c	a	a
4 Topic	Case 5	c	a	a
4 Topic	Case 6	c	b	a
4 Topic	Case 7	b	b	c
4 Topic	Case 8	c	d	a
4 Topic	Case 9	c	c	b
4 Topic	Case 10	a	b	b
5 Topic	Case 1	c	d	a
5 Topic	Case 2	c	e	b
5 Topic	Case 3	b	b	a
5 Topic	Case 4	b	a	a
5 Topic	Case 5	b	a	a
5 Topic	Case 6	b	b	a
5 Topic	Case 7	b	a	b
5 Topic	Case 8	c	a	a
5 Topic	Case 9	b	b	a
5 Topic	Case 10	b	c	a
6 Topic	Case 1	d	a	a
6 Topic	Case 2	c	a	a
6 Topic	Case 3	a	a	c
6 Topic	Case 4	a	a	b
6 Topic	Case 5	b	a	a
6 Topic	Case 6	d	a	b
6 Topic	Case 7	b	b	a
6 Topic	Case 8	b	a	a
6 Topic	Case 9	c	a	b
6 Topic	Case 10	b	a	b
7 Topic	Case 1	b	a	c
7 Topic	Case 2	c	a	b
7 Topic	Case 3	a	a	c
7 Topic	Case 4	b	a	a
7 Topic	Case 5	b	a	a
7 Topic	Case 6	b	a	a

7 Topic	Case 7	a	a	a
7 Topic	Case 8	a	a	a
7 Topic	Case 9	a	a	a
7 Topic	Case 10	a	a	a
8 Topic	Case 1	b	a	c
8 Topic	Case 2	a	a	d
8 Topic	Case 3	a	a	b
8 Topic	Case 4	b	a	a
8 Topic	Case 5	a	a	a
8 Topic	Case 6	c	b	a
8 Topic	Case 7	b	b	c
8 Topic	Case 8	a	b	a
8 Topic	Case 9	c	a	a
8 Topic	Case 10	c	a	a
9 Topic	Case 1	c	a	a
9 Topic	Case 2	a	a	a
9 Topic	Case 3	c	d	e
9 Topic	Case 4	c	a	a
9 Topic	Case 5	a	a	a
9 Topic	Case 6	c	a	a
9 Topic	Case 7	a	a	a
9 Topic	Case 8	b	a	a
9 Topic	Case 9	a	a	a
9 Topic	Case 10	a	a	a
10 Topic	Case 1	a	a	b
10 Topic	Case 2	a	d	a
10 Topic	Case 3	a	a	c
10 Topic	Case 4	a	a	a
10 Topic	Case 5	a	c	e
10 Topic	Case 6	a	a	a
10 Topic	Case 7	a	a	c
10 Topic	Case 8	a	c	a
10 Topic	Case 9	a	a	a
10 Topic	Case 10	a	a	a

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Sh.N. Valiyev

Tibbiyot oliy ta'lim muassasalari talabalari va magistratura rezidentlari

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Collection of test and situational cases in gynecology

O'quv qo'llanma ga

O'zbekiston Respublikasi Sog'liqni saqlash vazirligi Samarqand davlat tibbiyot universiteti tomonidan litsenziya berilgan nashriyotlarda nashr etishga ruxsat berildi.

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