State budgetary educational institution of higher professional education "The Orenburg State Medical University" of the Ministry of Health of Russia

Department of Faculty Surgery

MANUAL

FOR THE ORGANIZATION OF INDEPENDENT WORK OF FOREIGN STUDENTS OF THE 4TH YEAR AND PREPARATION FOR THE PRACTICAL LESSONS AT FACULTY SURGERY DEPARTMENT

Orenburg, 2019

UDC 617-089 (075.8)

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Manual for the organization of independent work of foreign students of the 4th year and preparation for the practical lessons at faculty surgery department. Orenburg, 2019 - 61 p.

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The methodical manual was considered and recommended for publication of the RIS of the OrSMU.

Contents

|  |  |  |
| --- | --- | --- |
|  |  | Page |
| 1 | Hernia | 4 |
| 2 | Acute appendicitis | 7 |
| 3 | Gastric and duodenal ulcer and its complications | 11 |
| 4 | Gastric cancer | 16 |
| 5 | Acute cholecystitis | 19 |
| 6 | Acute pancreatitis | 23 |
| 7 | Acute intestinal obstruction | 27 |
| 8 | Peritonitis | 30 |
| 9 | Suppurative diseases of the lungs. Bronchiectatic disease | 33 |
| 10 | Pleural empyema | 38 |
| 11 | Lung cancer | 42 |
| 12 | Varicose disease of the lower extremities | 45 |
| 13 | Obliterating arterial diseases of the extremities | 50 |
| 14 | Portal hypertension | 53 |
| 15 | Esophagus diseases | 57 |
| 16 | Breast diseases | 60 |
| 17 | Thyroid diseases | 63 |

**Class theme:** «Hernia»

 **When student prepares to the practical lesson, it is necessary to pay attention to** :

а) **List of issues for practical lesson:**

List the factors which contribute to the development of hernia of the anterior abdominal wall.

Name the main clinical manifestations of external abdominal hernia.

List the diseases with which to differentiate inguinal, femoral, umbilical and hernia of the white line of the abdomen.

Name the signs of strangulation of the hernia.

Modern surgical methods of treatment of hernia.

b) **Homework:**

Make the table or chart of:

Classification of abdominal hernia;

Structure of the inguinal canal and femoral triangle;

Types of hernia strangulation;

Methods of the treatment of the inguinal, femoral, umbilical and hernia of the white line of the abdomen.

c) **Theme of essay for performance at the classroom:**

1. Topography of the inguinal canal.

2. Topography of the femoral canal.

3. Topography of the white line of the abdomen.

4. Modern surgery methods of treatment of the hernia.

**Tests for homework:**

1. The contents of the hernial sac can be anything except:

 a) small intestine

 b) gaster

 c) pancreas

 d) liver

 e) bladder

2. For the sliding hernia one of the walls of the hernial sac is:

 а) bladder

 b) stuffing-box

 c) gaster

 d) kidney

 e) small intestine

 3. For unstrangulated hernia the correct treatment will be:

 а) immediate operation

 b) dynamic observation

 c) antibiotic therapy

 d) laparoscopy

 e) all mentioned above

4. For differential diagnosis of inguinal hernia and hydrocele of testicular membranes is indicated:

 а) X-Ray

 b) digital rectal examination

 c) US (ultrasound)

 d) diaphanoscopy

 e) all answers are incorrect

5. With the phlegmon of the hernial sac the operation begins with:

 а) dissection of phlegmon

 b) puncture of the hernial sac

 c) isolation of the hernial sac from surrounding tissues

 d) median laparotomy

 e) operation of the two accesses

6. Patients who has strangulated hernia and myocardial infarction are indicated:

 а) emergency operation

 b) observation, cold on the stomach

 c) introduction of antispasmodics

 d) Trendelenburg position

 e) invagination of hernia

7. Two loops of intestine in the hernial sac. What type of the hernial strangulation is it?

 а) elastic

 b) retrograde

 c) fecal

 d) Richter’s

 e) combinated

8. The strangulated loop of intestine was found in the hernia sac during the operation. How to assess the viability of this loop?

 а) colour of the intestine

 b) presence of intestinal peristalsis

 c) pulsation of mesenteric arteries

 d) all answers are incorrect

 e) all answers are correct

9. Traditional method of surgical treatment of the straight inguinal hernia:

 а) abdominoplasty with prosthesis

 b) Bassini operation

 c) herniotomy of Mayo

 d) hernioplasty of Liechtenstein

 e) operation of Postempskii

10. For the sliding hernia one of the walls of the hernial sac often meets:

 а) bladder

 b) rectum

 c) gaster

 d) stuffing-box

 e) kidney

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation.

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a hernia;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) principles of surgical treatment of hernia.

 3. Show the patient to the group.

 4. Performance with essay.

**Literature**

1. Voskresenskii NV, Gorelik S.L. Surgery of hernia of the abdominal wall. M., 1965

2.Evtikhov RM, Putin ME, Shulutko AM and others. Clinical surgery. Ed. «GEOTAR-MEDIA», 2006.

3. Kuzin M.I. Surgical diseases. Textbook. M., 2015.

4. Savelyev VS, Kirienko AI Surgical diseases. M., GEOTAR-Media, 2017.

5. Toskin K.D. and others. Hernias. Belly. M., 1983.

6. Lectures of the department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-c | 6-а |
| 2-а | 7-b |
| 3-b | 8-e |
| 4-d | 9-b |
| 5-d | 10-а |

**Class theme:** «Acute appendititis»

 **When student prepares to the practical lesson, it is necessary to pay attention to** :

а) **List of issues for practical lesson:**

 Determination of «Acute abdomen» and «Acute appendicitis»

 Classification of acute appendicitis

 The features of the location of the appendix, the structure of its walls

 Causes of acute appendicitis

 Clinic of acute appendicitis: features of the beginning and course of the disease.

 Basic symptoms of acute appendicitis (Koher-Volkovich’s, Sitkovskii’s, Voskresensky’s, Rovzing’s, Razdolskii’s, Karavaev’s, Bartome – Mihelson’s, Obrazcov’s, Shetkin – Blumberg’s and other symptoms).

 Features of the course of acute appendicitis in children, the elderly, pregnant .

 Differential diagnostic of acute appendicitis with :

 perforated ulcer of the stomach or duodenum;

 acute gastritis;

 acute cholecystitis;

 acute pancreatitis;

 right-sided renal colic ;

 ectopic pregnancy ;

 acute intestinal obstruction.

 Role of laparoscopy and US in the differential diagnoctic of acute appendicitis.

 Complications of acute appendicitis (peritonitis, appendicular infiltrate, abdominal abscesses , abscesses of pelvis, pylephlebitis).

 Medical tactics at the prehospital stage in patients with the clinic of an acute abdomen (acute appendicitis).

 Methods of examination in patients with suspected acute appendicitis.

 Methods of treatment of patient with acute appendicitis.

b) **Homework:**

 Make the table or charts of:

 features of structure and location of appendix;

 classification of acute appendicitis;

 methods of examination in patient with acute appendicitis;

 differential diagnostics;

 complications of acute appendicitis;

 methods of surgical treatment.

c) **Theme of essay for performance at the classroom:**

1. Features of the course of acute appendicitis in children.

2. Features of the course of acute appendicitis in the elderly.

3. Features of the course of acute appendicitis in pregnant.

4. Clinic and diagnostics of acute appendicitis with retro calculus.

**Tests for homework:**

1. Acute appendicitis does not have this symptom:

 а) Rovzing’s

 b) Voskresensky’s

 c) Murphy’s

 d) Obrazcov’s

 e) Bartome – Mihelson’s

2. Peritoneal symptom of acute appendicitis is:

 а) Voskresensky’s

 b) Shetkin – Blumberg’s

 c) Razdolskii’s

 d) all of the named symptoms

 e) all answers are incorrect

3. Acute appendicitis is differentiated with all diseases except:

 а) paradontitis

 b) acute pancreatitis

 c) acute adnexitis

 d) acute gastroenteritis

 e) right-sided renal colic

4. Clinic of acute appendicitis is the same as with:

 а) salpingitis

 b) acute cholecystitis

 c) ectopic pregnancy

 d) any of this diseases

5. It is not used in diagnostic of acute appendicitis:

 а) palpation of abdominal wall

 b) general blood analysis

 c) digital rectal examination

 d) irrigoscopy

 e) vaginal examination

6. Contraindication for emergency appendectomy is:

 а) appendicular infiltrate

 b) myocardial infracion

 c) second half of pregnancy

 d) hemorrhagic diathesis

 e) diffuse peritonitis

7. Typical complications of acute appendicitis are all except:

 а) appendicular infiltrate

 b) periapendicular abscess

 c) local peritonitis

 d) diffuse peritonitis

 e) mechanical jaundice

8. These methods are used for diagnostic of acute appendicitis:

 а) laparoscopy

 b) general blood analysis

 c) rectal examination

 d) termography

 e) all of the named answers

9. The phlegmonous appendicitis does not have this symptom:

 а) Shetkin – Blumberg’s

 b) Bartome – Mihelson’s

 c) Koher-Volkovich’s

 d) Georgyevsky-Mussi’s

10. Symptoms of appendicular infiltrate are all except:

 а) subfebrile temperature

 b) Rovzing’s symptom

 c) profuse diarrhea

 d) leukocytosis

 e) palpable tumor formation in the right ileal region

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

1. Evtikhov RM, Putin ME, Shulutko AM and others. Clinical surgery. Ed. «GEOTAR-MEDIA», 2006.

2. Kuzin M.I. Surgical diseases. Textbook. M., 2015.

3. Rotkov IL Diagnostic and tactical errors in acute appendicitis. M., 1980.

4. Savelyev VS Manual for emergency surgery of the abdominal cavity. M., 2004.

5. Savelyev VS, Kirienko AI Surgical diseases. Textbook. t. 1-2., М., GEOTAR-Media, 2017.

6. Lectures of the department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-c | 6-а |
| 2-d | 7-e |
| 3-а | 8-e |
| 4-e | 9-d |
| 5-d | 10-c |

**Class theme:** «Gastric and duodenal ulcer and its complications»

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Features of the anatomical structure and blood supply of the stomach and duodenum.

Classification of stenosis of the pylorus.

Classification of gastroduodenal bleeding.

Classification of stages of perforation.

Features of the stenosis clinic.

Features of the clinic of bleeding.

Features of the perforation clinic.

The concept of the syndrome of small signs of Savitsky.

Features of clinic penetration.

Differential diagnostic of complications of gastric ulcer and duodenal ulcer.

The tactics of the doctor at the prehospital stage in the complicated course of gastric ulcer and duodenal ulcer.

Methods of examination of patients with gastric ulcer and duodenal ulcer, its complications.

Types and methods of conservative and operative treatment of patients with peptic ulcer and its complications.

b)**Homework:**

Make the table or chart of:

Classification of complications of gastric ulcer;

Classification of perforation;

Classification of bleeding;

Classification of stenosis;

Algorithm for examining patients with: bleeding;

 penetration;

 malignancy;

 stenosis of the pylorus;

 perforation;

Indications for operative treatment of peptic ulcer;

Types and methods of surgical treatment:

 а) perforation;

 b) malignancy;

 c) bleeding.

c) **Theme of essay for performance at the classroom:**

1. Methods for diagnostic of gastric ulcer and duodenal ulcer.

2. Etiology of gastroduodenal hemorrhages.

3. Etiology of pyloroduodenal stenosis.

4. Methods for examination of patients with suspected malignancy.

5. Methods for surgical treatment of gastric ulcer and duodenal ulcer.

**Tests for homework:**

1. The regurgitation of the bright red foamy blood, which is enhanced by coughing, is characteristic of:

 а) bleeding gastric ulcer

 b) cardiac tumor

 c) Mellori-Weiss syndrome

 d) pulmonary hemorrhage

2. Which method can determine the source of gastroduodenal bleeding?

 а) X-ray examination of the stomach

 b) laparoscopy

 c) nasogastric tube

 d) redetermination of hematocrit and hemoglobin

 e) EGDS

3. Mellory-Weiss syndrome is:

 а) varicose veins of the esophagus and cardia complicated by bleeding

 b) bleeding from mucous membranes resulting from hemorrhagic vasculitis (Randu-Osler disease)

 c) crack in the cardiac part of gaster with bleeding

 d) hemorrhagic erosive gastroduodenitis

4. The disappearance of pain and the appearance of "melena" with a duodenal ulcer is characteristic for:

 а) pyloroduodenal stenosis

 b) perforation of ulcer

 c) malignancy of ulcer

 d) bleeding

 e) penetration in pancreas

5. It is not characteristic for bleeding duodenal ulcer:

 а) vomiting color of coffee grounds

 b) increased abdominal pain

 c) drop in hemoglobin

 d) melena

 e) decrease in the volume of circulating blood

6. The perforated ulcer is characterized by:

 а) pain

 b) Spijarny’s symptom

 c) multiple vomiting

 d) sharp bloating

 e) Koher-Volkovich’s symptom

7. This method is used for diagnostic of perforated ulcer:

 а) X-ray examination of the stomach

 b) intravenous urography

 c) radiography of the digestive tract with barium

 d) angiography

 e) novocain blockade

8. In the differential diagnostic of perforated ulcers and acute appendicitis, the most informative method is:

 а) general blood analysis

 b) Shetkin-Blumberg’s symptom

 c) laparoscopy

 d) digital rectal examination

 e) passage of barium through the intestine

9. Clinic of perforated ulcer has periods:

 а) hemodynamic disorders

 b) imaginary well-being

 c) toxic

 d) terminal

 e) diffuse peritonitis

 f) shock

10. The compensated pyloric stenosis is characterized by:

 а) stabbing pain after eating

 b) blunt, aching pain after eating

 c) back pain

 d) constipation

11. The decompensated stenosis of the pylorus is not characterized by:

 а) vomiting with food eaten the day before

 b) muscle tension of the anterior abdominal wall

 c) "Noise of splashing" in the stomach on an empty stomach

 d) icterus sclera and skin

12 For the diagnosis of pyloric stenosis is not applied:

 а) cholecystography

 b) sigmoidoscopy

 c) bronchography

 d) radiography of gastric with barium

13. The main role in the occurrence of stenosis of the pylorus plays:

 а) acute pancreatitis

 b) acute gastriris

 c) acute gastroenteritis

 d) chronic ulcer of antral gaster

14. The blunt, aching, girdle pain in the left hypochondrium are characteristics of:

 а) acute appendicitis

 b) acute pancreatitis

 c) chronic pancreatitis

 d) perforation of hollow organ

 e) duodenal ulcer

 f) penetration of ulcer in pancreas

15. These methods are not used for diagnostic of penetrated ulcer:

 а) X-Ray examination of gaster and duodenum

 b) laparoscopy

 c) X-Ray examination of skull

 d) X-Ray examination of chest

 e) EGDS

 f) US

16. Choose the basic symptoms of the penetration of ulcer in pancreas:

 а) pain during swallowing

 b) multiple vomiting

 c) constant pain after eating which is irradiating to the lumbar region

 d) pain in the chest

17. This radiologic sign indicates ulcer penetration:

 а) defect of filling of a rounded shape in the area of the body of gaster

 b) a small "niche" in the pyloric department of the stomach

 c) Kloiber’s cups

 d) crescent strip of gas under the right dome of the diaphragm

 e) gas bubble in the bottom of gaster

 f) deep "niche" that extends beyond the organ

18. Basic signs of malignancy are all except:

 а) Gorner’s symptom

 b) Knigin-Mondor’s triad

 c) syndrome of minor signs

 d) syndrome Courvoisier

19. The following methods of diagnostic should be used in case of suspected malignancy of the ulcer:

 а) sputum analysis

 b) saliva analysis

 c) bile analysis

 d) analysis of washings from the gaster to atypical cells

20. Choose the most informative methods of diagnostics of cancer from ulcer:

 а) fluoroscopy of the gaster

 b) fluoroscopy of the skull

 c) fluoroscopy of the lungs

 d) EGDS with biopsy

21. This symptoms are not characteristic for malignancy of ulcer:

 а) pain in the right hypochondrium

 b) head ache

 c) pain in calf muscles during walking

 d) blunt, aching, persistent, non-eating epigastric pain

 e) causeless weakness, malaise, adynamia, aversion to meat food, weight loss

 f) heaviness in the epigastric region, belching rotten, unpleasant odor from the oral cavity.

 g) palpable tumor formation in the right ileal region

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

1. Evtihov R.М., Putin М.Е., Shulutko А.M. Clinical surgery, 2006
2. Kuzin М.И. Surgical diseases. Textbook. М.,2015.
3. Savelev V.S., Kirienko А.I. Surgical diseases. М.,2017.
4. Savelev V.S., Kirienko A.I. Manual for emergency surgery of the abdominal cavity т. 1-2.,М.,2005.
5. Lection of department.

Attachment

Answers to tests

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1-d | 6-b | 11-b,d | 16-c | 21-а,b,c |
| 2-e | 7-а | 12-a,b,c | 17-f |  |
| 3-c | 8-c | 13-d | 18-а,b,d |  |
| 4-d | 9-b,e,f | 14-c | 19-d |  |
| 5-b | 10-b | 15-b,c,d,e | 20-d |  |

**Class theme:** «Gastric cancer»

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Determination of “Gastric cancer”

Anatomical classification of cancer

Clinical classification of cancer

Possible causes of gastric cancer

Ways of gastric cancer metastasis

Syndrome of minor signs

Clinical manifestations of cancer of different localization

Differential diagnostic of cancer

Algorithm of diagnostic search

Complications of gastric cancer

Types of radical operations

Methods of palliative operations

b) **Homework:**

Make the table or charts of:

classification of gastric cancer;

ways of gastric cancer metastasis;

methods of diagnostic search;

types and methods of operations in gastric cancer.

c) **Theme of essay for performance at the classroom:**

1. Etiopathogenesis of gastric cancer

2. Ways of gastric cancer metastasis

3. Methods of laboratory and instrumental examination of patients with gastric cancer

4. Differential diagnostics of gastric cancer

5. Complications of gastric cancer

6. Methods of treatment of gastric cancer

**Tests for homework:**

 1. The symptoms of gastric cancer are not:

 а) girdle pain

 b) heart pain

 c) pain in the epigastric region

 d) pain in the calf muscles

 e) head pain

2. Schnitzler's metastasis is localized:

 а) in the liver

 b) in the rectal-vesicular fold

 c) in the ovaries

 d) between the legs of the nodding muscle

 e) in the navel

3. The metastasis of Crookenberg is located:

 а) in the rectal-vesicular fold

 b) in the ovaries

 c) between the legs of the nodding muscle

 d) in the navel

 e) in the liver

4. The syndrome of minor signs includes:

 а) fast, unreasonable weight loss

 b) cough with purulent sputum

 c) hematuria

 d) aversion to dairy food

 e) aversion to meat food

5. Virchow's metastasis is detected:

 а) in the liver

 b) in the rectal-vesicular fold

 c) in the ovaries

 d) between the legs of the nodding muscle

 e) in the lungs

6. The clinical manifestations of cancer are:

 а) weakness, malaise, fast physical fatigue

 b) increased nutrition

 c) exophthalmos and eye shine

 d) weight loss, pallor of mucous membranes and skin

 e) ascites

7. Delayed evacuation from the gaster is characteristic for the localization of cancer:

 а) in the pyloric

 b) in the cardiac

 c) in the body of the gaster

 d) in the great curvature

 e) in the small curvature

8. Choose survey methods used for cancer:

 а) analysis of urine

 b) analysis of sputum

 c) analysis of gastric juice

 d) EGDS with biopsy

 e) phlebography

9. The earliest diagnosis of gastric cancer is provided by:

 а) EGDS with biopsy

 b) search of «syndrome of minor signs»

 c) radiography of the gaster

 d) radiographic examination of the abdominal cavity

10. The following operations are used in gastric cancer:

 а) cholecystectomy

 b) subtotal resection of the thyroid

 c) subtotal resection of the gaster

 d) appendectomy

 e) gasterectomy

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

 colour of skin and mucous

 temperature of body

 feeding the patient

 number of respiratory movements

 state of tongue

 the involvement of the anterior abdominal wall in breathing

 the condition of the anterior abdominal wall (tension, painful sections)

 local symptoms and signs of disease

 intestinal peristalsis

 presence or absence of gases and stools

c) identification of local signs and symptoms of the disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

1. Evtihov R.М., Putin М.Е., Shulutko А.M. Clinical surgery, 2006
2. Kuzin М.И. Surgical diseases. Textbook. М.,2015.
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5. Lection of department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-а,b,d,e | 6-а,d,e |
| 2-b | 7-а |
| 3-c | 8-c,d |
| 4-a,e | 9-а |
| 5-d | 10-c,e |

 **Class theme:** «Acute cholecystitis»

 **When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

 Determination of “Acute cholecystitis” and “Chronic cholecystitis”

 Features of the location of the gallbladder, the structure of its wall

 Features of the anatomical structure of the external biliary tract

 Features of the blood supply of the gallbladder (triangle of Kallo )

 Classification of cholecystitis

 Clinic of acute cholecystitis and chronic cholecystitis

 The main symptoms of cholecystitis (pain in the right upper quadrant, symptoms of Ortner, Kera, Zakharyin, Murphy, Georgievsky-Mussi, etc.)

 Features of its course in the elderly

 Differential diagnosis of acute cholecystitis with:

* + acute appendicitis
	+ acute gastritis
	+ perforated gastric and duodenal
	+ acute pancreatitis
	+ acute intestinal obstruction

 Complications of acute cholecystitis (pericholecystitis, perforation and bile peritonitis, mechanical jaundice, purulent cholangitis, primary edema, empyema of the gallbladder)

 Physician's tactics at the prehospital stage

 Principles of conservative treatment

 Indications for surgery

 Methods (laparotomic, from the mini-access, laparoscopic) and types of operations (cholecystectomy from the cervix, from the bottom, cholecystostomy)

b) **Homework:**

 Make the table or charts of:

classification of cholecystitis;

differential diagnostics;

features of the structure and blood supply of the gallbladder;

methods of examination of patients with cholecystitis;

complications of cholecystitis;

types and methods of surgical treatment of patients with cholecystitis.

c) **Theme of essay for performance at the classroom:**

1. Topography of biliary tract.

2. Exchange of bilirubin.

3. Causes of mechanical jaundice.

4. Modern methods of surgical treatment of cholecystitis.

5. Clinic, diagnosis and treatment of cholangitis.

**Tests for homework:**

1. The width of the choledoch is normally:

 а) 0,5 cm

 b) 0,6-1,0 сm

 c) 1,1-1,5 сm

 d) 1,6-2,0 сm

 e) more than 2 сm

2. To the patient with a gangrenous cholecystitis they assign:

 а) conservative treatment

 b) delayed operation

 c) the decision depends on the age of the patient

 d) surgery in the absence of the effect of conservative therapy

 e) emergency operation

3. To intraoperative methods of investigation of extrahepatic biliary tracts belong all except:

 а) palpation of choledoch

 b) choledochoscopy

 c) intraoperative cholangiography

 d) probing choledoch

 e) intravenous cholangiography

4 The patient with jaundice on the background of choledocholithiasis needs:

 а) an emergency operation

 b) conservative treatment

 c) urgent surgery after preoperative preparation

 d) the catheterization of the celiac artery

5. The complications of calculous cholecystitis is not:

 а) varicose veins of the esophagus

 b) mechanical jaundice

 c) cholangitis

 d) subhepatic abscess

 e) peritonitis

6. Stone formation in the gallbladder is facilitated by everything except:

 а) stagnation of bile in the bladder

 b) metabolic disorders

 c) inflammatory changes in the gallbladder

 d) dyskinesia of the bile duct

 e) disorders of pancreatic secretion

7. To clarify the type of jaundice and the cause of its occurrence is not used:

 а) CT scan

 b) intravenous cholecystocholangiography

 c) percutaneous transhepatic cholangiography

 d) US (ultrasound)

8. In the case of cholelithiasis, an emergency operation is indicated for:

 а) occlusion of the cystic duct

 b) cholecystopancreatitis

 c) perforated cholecystitis

 d) mechanical jaundice

 e) hepatic colic

9. The complication of cholelithiasis is:

 а) edema of the gallbladder

 b) empyema of the gallbladder

 c) jaundice, cholangitis

 d) perforated cholecystitis, peritonitis

10. In cholelithiasis, planned cholecystectomy is indicated:

 а) in all cases

 b) a latent form of the disease

 c) the presence of clinical signs of disease and disability

 d) patients older than 55 years

 e) persons younger than 20 years.

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

1. Evtihov R.М., Putin М.Е., Shulutko А.M. Clinical surgery, 2006
2. Kuzin М.И. Surgical diseases. Textbook. М.,2015.
3. Savelev V.S., Kirienko А.I. Surgical diseases. М.,2017.
4. Savelev V.S., Kirienko A.I. Manual for emergency surgery of the abdominal cavity т. 1-2.,М.,2005.
5. Lection of department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-b | 6-e |
| 2-e | 7-b |
| 3-e | 8-c |
| 4-c | 9-c |
| 5-а | 10-а |

**Class theme**: “Acute pancreatitis”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Determination of “Acute pancreatitis” and “Chronic pancreatitis”

Features of the structure and function of the pancreas

The main causes of pancreatitis

The pathogenesis of acute and chronic pancreatitis

Clinic of this disease

The nature of the pain syndrome

The basic symptoms (Kerte’s, Voskresensky’s, Mayo-Robson’s, Mondor’s, Cullen’s, Gray-Turner’s, Halstead’s and etc.)

Features of the course of the disease

Methods of diagnosis (laboratory, instrumental)

Differential diagnosis of acute and chronic pancreatitis

The complications of acute pancreatitis

The main principles of treatment (help at the prehospital stage) edematous and destructive forms of acute pancreatitis, chronic pancreatitis

b) **Homework:**

Make the table or charts of:

structure of the pancreas and its main functions;

pathogenesis of acute pancreatitis;

classification of acute and chronic pancreatitis;

basic principles of treatment of acute and chronic pancreatitis.

c) **Theme of essay for performance at the classroom:**

 1. The role of the pancreas in the life of the human body.

 2. Methods of clinical and instrumental diagnosis of acute and chronic pancreatitis.

 3. Methods of conservative treatment of acute and chronic pancreatitis.

 4. Modern methods of surgical treatment of acute pancreatitis.

# **Tests for homework:**

1. In the development of acute pancreatitis, the leading role belongs to:

 а) microbial flora

 b) microcirculatory disorders

 c) auto-enzyme aggression

 d) venous stasis

2. The transverse pain resistance of the anterior abdominal wall in the projection of the pancreas in acute pancreatitis is called the symptom of:

 а) Mayo-Robson’s

 b) Kerte’s

 c) Gray-Turner’s

 d) Mondor’s

 e) Voskresensky’s

3. Soreness in palpation in the left costal-vertebral corner is characteristic of the symptom of:

 а) Voskresensky’s

 b) Mayo-Robson’s

 c) Grunvald’s

 d) Mondor’s

 e) Gray-Turner’s

4. The most informative method of research in pancreatitis is:

 а) radiographic examination of the abdominal cavity

 b) laparoscopy

 c) gastroduodenoscopy

 d) determination of blood and urine amylase, ultrasound

5. Detection of hemorrhagic effusion in the abdominal cavity and foci of fatty necrosis on the peritoneum allows one to think about:

 а) damage to the hollow body

 b) rupture of liver

 c) acute pancreatitis

 d) perforated gastric ulcer

 e) mesenteric thrombosis

6. The most frequent symptom of pancreatitis is:

 а) nausea and vomiting

 b) hyperthermia

 c) jaundice

 d) abdominal distention

 e) pain in the upper abdomen

7. This enzyme is not involved in the pathogenesis of acute pancreatitis:

 а) enterokinase

 b) elastase

 c) phospholipase

 d) trypsin

 e) streptokinase

8. The most common clinico-morphological form of acute pancreatitis is:

 а) edematous pancreatitis

 b) fatty pancreatic necrosis

 c) hemorrhagic pancreatic necrosis

 d) purulent pancreatitis

 e) fatty pancreonecrosis with enzymatic peritonitis

9. The most characteristic feature of acute pancreatitis is pain:

 а) aching

 b) girding

 c) cramping

 d) dagger

 e) blunt

10. Patient with acute pancreatitis in the first day is appointed:

 а) diet table 15

 b) diet table 5а

 c) diet table 9

 d) diet table 10

 e) hunger

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

 colour of skin and mucous

 temperature of body

 feeding the patient

 number of respiratory movements

 state of the tongue

 the involvement of the anterior abdominal wall in breathing

 the condition of the

treatment

h) definition of treatment tactics anterior abdominal wall (tension, painful sections)

 local symptoms and signs of disease

 intestinal peristalsis

 presence or absence of gases and stools

c) identification of local signs and symptoms of the disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

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Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-c | 6-e |
| 2-b | 7-e |
| 3-b | 8-а |
| 4-b | 9-b |
| 5-c | 10-e |

**Class theme:** «Acute intestinal obstruction»

 **When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Determination of “Acute intestinal obstruction”

Classification of intestinal obstruction

Causes of intestinal obstruction

Pathogenesis of peritonitis in acute intestinal obstruction

Clinical picture of acute intestinal obstruction

Methods of instrumental examination of patients with intestinal obstruction

Differential diagnostics of acute intestinal obstruction

Methods of conservative and operative treatment of acute intestinal obstruction

b) **Homework:**

Make the table of charts of:

classification of intestinal obstruction;

pathogenesis of intestinal bowel disorders in acute intestinal obstruction;

algorithm for examination of patients with acute intestinal obstruction;

principles of conservative and operative treatment of intestinal obstruction.

c) **Theme of essay for performance at the classroom:**

1. Methods of examination of patients with suspected acute intestinal obstruction.

2. Disorders of water-electrolyte metabolism in acute intestinal obstruction.

3. Pathogenesis of peritonitis in acute intestinal obstruction

4. Methods of treatment of patients with acute intestinal obstruction.

**Tests for homework:**

1. The development of acute intestinal obstruction can be predisposed by:

 а) weakness of abdominal muscles

 b) alcohol abuse

 c) consumption of fat and spicy food

 d) eating large amounts of fiber-rich foods

 e) psychotrauma

2. For all types of acute intestinal obstruction characteristic is:

 а) intense abdominal pain

 b) augmentation of peristalsis

 c) persistent stool and gas retention

 d) abdominal asymmetry

 e) tension of the abdominal muscles

3. For low colonic obstruction all is characteristic except:

 а) gradual increase in symptoms

 b) abdominal distention

 c) the appearance of the Klauber bowls

 d) stool delay

 e) rapid dehydration (during the day)

4. The main symptom of obstructive intestinal obstruction is:

 а) persistent abdominal pain

 b) cramping abdominal pain

 c) vomit of "coffee grounds" color

 d) abdominal distention

 e) melena

5. When suspecting acute intestinal obstruction first of all is produced:

 а) overview fluoroscopy of the abdominal cavity organs

 b) examination of the passage of barium in the intestine

 c) esophagogastroduodenoscopy

 d) laparoscopy

 e) blood chemistry

6. With nodulating, curling of the intestine:

 а) conservative treatment should be conducted

 b) emergency operation is shown

 c) dynamic monitoring is necessary

 d) the operation is performed in the "cold" period

 e) all answers are correct

7. With cancer of the cecum, the operation of choice is:

 а) right-sided hemicolectomy with superposition of ilotransversoanastomosis

 b) ileostomy

 c) cecostomy

 d) Hartmann operation

8. For acute intestinal obstruction is not typical:

 а) indomitable vomiting

 b) cramping pains

 c) rapid dehydration

 d) bloating in the first hours of the disease

 e) rapid decrease in BCC

9. With paralytic intestinal obstruction is used:

 а) surgical treatment

 b) cholinergetics

 c) nasointestinal intubation

 d) novocain blockade

 e) all intestinal stimulants

10. In acute intestinal obstruction this symptom is not detected:

 а) Val’s

 b) Voskresensky’s

 c) Sklyarov’s

 d) Kivulya’s

 e) symptom of "Obukhov hospital"

**Methods of control of the homework at the classroom:**

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 temperature of body

 feeding the patient

 number of respiratory movements

 state of the tongue

 the involvement of the anterior abdominal wall in breathing

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h) definition of treatment tactics anterior abdominal wall (tension, painful sections)

 local symptoms and signs of disease

 intestinal peristalsis

 presence or absence of gases and stools

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

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Answers to tests

|  |  |
| --- | --- |
| 1-d | 6-b |
| 2-c | 7-а |
| 3-e | 8-d |
| 4-b | 9-e |
| 5-а | 10-b |

**Class theme:** “Peritonitis”

 **When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

 1. Name the classification of peritonitis

 2. List the clinical symptoms of peritonitis, depending on the stage of its course

 3.What are the laboratory and instrumental methods used in differential diagnostics of peritonitis?

 4. List the diseases with which it is necessary to differentiate peritonitis

b) **Homework:**

Make the table or charts of:

 classification of peritonitis;

 pathogenesis of pathological disorders in the body with a common peritonitis;

 operative treatment of peritonitis;

 ways to prevent complications of peritonitis.

c) **Theme of essay for performance at the classroom:**

1. The pathogenesis of acute purulent peritonitis.

2. Modern methods of diagnostic of peritonitis.

3. Basic principles of treatment of acute purulent peritonitis.

4. Methods of intra- and extracorporeal detoxification used in the treatment of peritonitis.

**Tests for homework:**

1. For diffuse purulent peritonitis is characteristic:

 а) girdle pain

 b) multiple indomitable vomiting

 c) frequent painful urination

 d) symptom of Schetkin-Blumberg

 e) melena

2. In the terminal stage of diffuse peritonitis is not characteristic:

 а) general extremely difficult condition

 b) increased peristalsis

 c) severe intoxication

 d) face of Hippocrates

 e) abdominal distention

3. Peritonitis is the complication for all diseases except:

 а) acute appendicitis

 b) acute intestinal obstruction

 c) disturbed ectopic pregnancy

 d) acute pancreatitis

 e) stenosis of the duodenal papilla

4. To diagnose the abscess of Douglas space the optimal method is:

 а) Ultrasound of the abdominal cavity

 b) diagnostic laparoscopy

 c) digital rectal examination

 d) abdominal radiography

 e) clinical blood test

5. The most common cause of peritonitis is:

 а) acute appendicitis

 b) perforating ulcer

 c) acute intestinal obstruction

 d) acute pancreatitis

 e) strangulated hernia

6. For peritonitis is not typical:

 а) abdominal wall tension

 b) symptom of Courvoisier

 c) increased heart rate

 d) stool and gas retention

 e) vomiting

7. The pathognomonic symptom of the perforation of a hollow organ into the free abdominal cavity is:

 а) high leukocytosis

 b) positive symptom of Schetkina-Blumberg

 c) Free gas under the right dome of the diaphragm

 d) dullness in the shallow abdominal cavity

 e) absence of peristaltic noise

8. For the late stage of peritonitis it is not typical:

 а) abdominal distention

 b) dehydration

 c) disappearance of intestinal noises

 d) increased peristalsis

 e) hyperproteinemia

9. The cause of pseudo-peritoneal syndrome may be:

 а) acute appendicitis

 b) intestinal obstruction

 c) pneumothorax

 d) retroperitoneal hematoma

 e) nephrolithiasis

10. What symptoms do not relate to the initial stage of peritonitis:

 а) abrupt electrolyte shifts

 b) tendency to tachycardia

 c) abdominal tenderness during palpation

 d) tension of abdominal muscles

 e) augmentation of leukocytosis

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

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а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

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5. Acute diffuse peritonitis. Struchkova А.I.,М.,1987.
6. Symonyan К.S. Peritonitis.М.,1971.
7. Lection of department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-d | 6-b |
| 2-b | 7-c |
| 3-e | 8-d |
| 4-c | 9-e |
| 5-а | 10-а |

**Class theme:** “Suppurative diseases of the lungs. Bronchiectatic disease”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

**Abscess of lung**

The definition of "lung abscess"

Etiology and pathogenesis of lung abscess

Classification of lung abscess

Clinical picture of lung abscess

Methods of diagnosis, differential diagnosis of lung abscess with: festering lung cyst, lung cancer, bronchoectatic disease, gangrene of the lung

Complications of lung abscess

Prevention of lung abscess.

**Bronchoectatic disease**

Definition of "bronchoectatic disease"

Features of the structure of the bronchial tree of the lungs

Etiology and pathogenesis of bronchiectasis

Classification, clinical picture

Diagnosis, differential diagnosis of bronchiectasis with: acute and chronic lung abscess, gangrene lung, lung cancer, festering lung cyst

Complications of bronchiectasis

The tactics of a doctor in the prehospital phase of medical care

Conservative and surgical treatment

Prevention of bronchiectasis

b**) Homework**

Make the table or chart of:

**Abscess of lung**

etiology of acute lung abscess;

classification of lung abscess;

differential diagnosis of acute lung abscess;

complications of lung abscess;

preventive measures aimed at reducing the incidence of suppurative diseases of the lungs.

**Bronchoectatic disease**

the etiology of bronchiectasis;

classification;

diagnostics, differential diagnosis of bronchiectasis,

complications and treatment of the disease.

c) **Theme of essay for performance at the classroom:**

1. Anatomo-functional features of the lungs.

2. Features of blood supply to the lungs.

3. Construction of lung abscess.

4. Modern methods of examination of patients with lung diseases.

5. Modern methods of surgical treatment of abscesses in the lung.

# **Tests for homework**

**Abscess of lung**

1. Choose three common complications of acute lung abscess:

     a) empyema of the pleura

     b) pyopneumovorax

     c) phlegmon of the thorax

     d) abscess of the brain

     e) pulmonary hemorrhage

     e) amyloidosis

2. What are the main mechanisms of development of acute lung abscess:

     a) violation of the drainage function of the bronchi

     b) disturbance of blood circulation in the lung

     c) reduction of protective mechanisms

     d) virulent microflora

     e) chronic respiratory infections

     f) all of the above

3. Therapeutic tactics in the patient with acute lung abscess in the stage of formation are as follows:

     a) surgical treatment

     b) pleural cavity puncture

     c) thoracoplasty

     d) conservative treatment

4. In acute lung abscess, surgical treatment is indicated in the case of:

      a) a breakthrough into the pleural cavity

      b) a breakthrough into the bronchial tree

      c) a breakthrough in the mediastinum

      d) phlegmon of the thorax

5. Specify the type of surgical intervention for chronic lung abscess:

     a) segmental resection

     b) thoracotomy with tamponade of the abscess cavity

     c) drainage of abscess cavity

     d) pulmonectomy

     e) lobectomy

6. Choose the types of X-ray examination that should be used in the diagnosis of lung abscess:

     a) X-ray of the lungs

     b) review fluoroscopy

     c) magnetic resonance radiography

     d) computed tomography

     e) bronchography

7. A patient with an abscess of the lung developed a clinic called pyopneumotorax. Choose a method of treatment:

     a) antibiotic therapy

     b) medical bronchoscopy

     c) drainage of the pleural cavity

     d) thoracotomy with sanation of the pleural cavity

8. What are the factors of chronization of lung abscess:

     a) incomplete treatment of acute lung abscess

     b) general weakening of the body

     c) the presence of concomitant diseases of the cardiovascular system

     d) late seeking medical help

9. Differential diagnosis of lung abscess should be carried out with:

     a) bronchoectatic disease

     b) pleurisy

     c) empyema of the pleura

     d) lung cancer

     e) exacerbation of chronic bronchitis

     e) pneumonia

10. What are the phases of development of acute lung abscess:

     a) prodromal

     b) the initial

     c) forming

     d) severe clinical manifestations

     e) breakthrough

     e) complications

**Bronchiectatic disease**

11. Diagnostic methods for diagnosing bronchiectasis are:

     a) bronchoscopy

     b) spirometry

     c) bronchography

     d) tomography

     e) chest fluoroscopy

12. With bronchoectatic disease the following types of operations are used:

     a) removal of the lower lobe

     b) segmental resection

     c) pulmonectomy

     d) removal of the upper lobe

13. Bronchiectasis develops as a result of:

     a) innate causes

     b) chronic pneumonia

     c) pulmonary tuberculosis

     d) smoking

     e) violations of the patency of the bronchi

14. For sanitation of a bronchial tree the most effective method is:

     a) respiratory gymnastics

     b) antibacterial therapy

     c) medical bronchoscopy

     d) inhalation

     e) chest massage

15. For bronchiectasis, sputum is characteristic:

     a) two-layer

     b) three-layer

     c) four-layer

     d) five-layer

16. Indicate at what stage of the disease operative treatment of bronchoectatic disease is indicated:

     a) I initial

     b) II A stage

     c) II B stage

     d) III A stage

     e) III B stage

17. Choose the three most common complications of bronchiectasis:

     a) amyloidosis

     b) pulmonary hemorrhage

     c) abscess of the lung

     d) pyopneumovorax

     e) lung cancer

18. Choose the diseases with which bronchoectatic disease should be differentiated:

     a) lung cancer

     b) tuberculosis of the lung

     c) cyst of the lung

     d) inter-annual pleurisy

     e) bullous emphysema

     e) chronic pneumonia

19. The following segments of the lung are affected more often with bronchoectatic disease:

     a) the upper lobe

     b) the average share

     c) the lower lobe

     d) the total lung

20. The following clinical symptoms are typical for bronchiectasis:

     a) "drumsticks"

     b) "watch glasses"

     c) transverse striation of nail plates

     d) periosteoarthropathy

     e) all of the above

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostics;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

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**Literature**

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# Attachment

Answers to tests

|  |
| --- |
| **Abscess of lung** |
| 1-а,b,c | 6-а |
| 2-f | 7-c |
| 3-d | 8-а,b,d |
| 4-а,c | 9-а,d,f |
| 5-а,e | 10-c,e |
| **Bronchiectatic disease** |
| 11-c,d | 16-c,d |
| 12-а,b | 17-а,b,c |
| 13-а | 18-а,b,e,f |
| 14-c,d | 19-c |
| 15-b | 20-e |

**Class theme:** “Pleural empyema”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

**Acute Pleural Empyema**

Definition of "acute empyema of the pleura"

Etiology and pathogenesis of acute pleural empyema

The role of the micro- and macroorganism in the onset of acute pleural empyema

Clinic of acute pleural empyema

Methods of diagnosis of acute pleural empyema

Differential diagnosis of acute pleural empyema with other types of pleurisy

Complications of acute pleural empyema

Methods of treatment of acute pleural empyema

**Chronic pleural empyema**

Definition of "Chronic empyema of the pleura"

Etiology and pathogenesis of chronic pleural empyema

Clinical picture of chronic pleural empyema

Methods for the diagnosis of chronic pleural empyema

Differential diagnosis of chronic pleural empyema with: serous pleurisy, tuberculosis, actinomycosis

Principles of conservative treatment

Indications for surgical treatment

Types of surgical interventions for chronic pleural empyema

b) **Homework**:

 Make the table or chart of:

**Acute Pleural Empyema:**

etiology of acute pleural empyema;

classification of acute pleural empyema;

diagnosis of acute pleural empyema;

differential diagnosis of acute pleural empyema;

complications of acute pleural empyema;

**Chronic pleural empyema:**

etiology of chronic pleural empyema;

diagnosis of chronic pleural empyema;

methods of conservative and operative treatment of chronic pleural empyema.

c) **Theme of essay for performance at the classroom:**

1. Features of anatomy and physiology of the pleura.

2. Modern methods of examination of patients with diseases of the pleura.

3. Methods of correction of electrolyte disorders with empyema.

4. Modern methods of surgical treatment of pleural empyema.

**Tests for homework**

**ACUTE PLEURAL EMPIEMA**

1. Name the path of infection in the pleural cavity:

   a) airborne

   b) hematogenous

   c) lymphogenic

   d) alimentary

  e) chest injury

2. By the prevalence of the process should be distinguished:

   a) total empyema of the pleura

   b) encased

   c) diffuse empyema of the pleura

   d) diffuse empyema of the pleura

3. By the time of emergence they distinguish which empyema:

   a) metapneumonic

   b) parapneumonic

   c) retropneumonic

   d) when an abscess breaks into the pleural cavity

4. The main methods of instrumental diagnosis of acute empyema are:

   a) chest X-ray

   b) chest X-ray

   c) bronchography

   d) chest tomography

 e) pleural cavity puncture

5. Complications of acute pleural empyema:

   a) sepsis

   b) bronchopleural fistula

   c) rib osteomyelitis

   d) phlegmon of thoracic wall

  e) peritonitis

   f) all of the above

6. Name the types of surgical treatment of acute pleural empyema

   a) closed thoracotomy without rib resection

   b) closed thoracotomy with rib resection

   c) thoracoplasty

   d) all of the above

7. Name the most effective methods of conservative treatment of acute pleural empyema:

   a) pleural puncture

   b) aspiration bronchoscopy

   c) antibiotic therapy

   d) active drainage of the pleural cavity

  e) complex treatment

**CHRONIC PLEURAL EMPIEMA**

8. Specify the reasons for the transition of acute empyema to chronic:

   a) reduction of body defenses

   b) virulent microflora

   c) late diagnosis

   d) incomplete treatment of acute empyema

  e) presence of broncho-pulmonary fistula

9. Name the diseases with which it is necessary to conduct differential diagnosis of chronic pleural empyema:

   a) acute pleural empyema

   b) croupous pneumonia

   c) echinococcal cyst

   d) festering hemothorax

  e) hemorrhagic pleurisy

  f) hydrothorax

10. Name the most effective radical methods of treatment of chronic pleural empyema:

   a) tamponade of the pleural cavity according to Vishnevsky

   b) thoracoplasty according to B.E.Limberg

   c) decorticating the lung according to Delorme

   d) total pleurectomy

11. Palliative methods of treatment of chronic pleural empyema include:

   a) thoracoplasty

   b) lung decortication

   c) pleurectomy

   d) drainage with permanent aspiration

  e) residual cavity tamponade

12. Name the methods of active drainage of the pleural cavity:

   a) Bulau

   b) Subbotin

   c) vacuum drainage

13. What are the measures to prevent chronic pleural empyema:

   a) early recognition and active treatment of acute pleural empyema

   b) the use of complex combined antibacterial treatment

   c) therapeutic gymnastics

   d) active use of physiotherapeutic treatment

14. What are the main signs of chronic pleural empyema:

   a) the course of pleural empyema for more than 8 weeks

   b) the course of empyema of the pleura for more than 4 weeks

   c) the presence of a non-receding cavity between the lung and parietal pleura

   d) presence of pleura-cutaneous fistula

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Attachment

Answers to tests

|  |
| --- |
| Acute pleural empyema |
| 1-b,c,e | 5-b,c,d |
| 2-а,b | 6-а,b |
| 3-а,b | 7-а,b,e |
| 4-b,d,e |  |
| Chronic pleural empyema |
| 8-c,d,e | 12-b,c |
| 9-c,d | 13-а |
| 10-c,d | 14-а,b,d |
| 11-а,d,e |  |

**Class theme:** “Lung cancer”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Etiology and pathogenesis of lung cancer

What are the three main symptoms of lung cancer?

Name four forms of peripheral lung cancer

Clinical classification of lung cancer

Clinical picture of central and peripheral lung cancer

Complications of lung cancer

Name the methods of instrumental diagnostics of lung cancer

Methods of surgical treatment of lung cancer

b) **Homework:**

     Make the table or chart of:

classification of lung cancer;

differential diagnostics;

segmental structure of the lung;

instrumental methods of diagnostics;

radiation methods of treatment;

methods of surgical treatment.

c) **Theme of essay for performance at the classroom:**

1. Lymphatic lung system and cancer metastasis pathways.

2. Complications of lung cancer.

3. Methods of diagnosis of pulmonary hemorrhage.

4. Modern methods of surgical treatment of lung cancer.

**Tests for homework**

1. Symptoms of lung cancer are:

     a) dry, barking cough

     b) dyspnea

     c) soreness when tapping the chest and spine

     d) hemoptysis

     e) recurrent pneumothorax

2. The main radiographic evidence of peripheral lung cancer is:

     a) rounded shadow in the lung

     b) a rounded shadow with distinct outlines

     c) a rounded shadow with a path to the root of the lung

     d) atelectasis

     e) displacement of the mediastinum

3. In lung cancer, hemoptysis is an early symptom:

     a) yes, it is

     b) no, it isn’t

4. Horner's triad is characteristic for:

     a) tumors of the mediastinum

     b) lung cancer

     c) abscess of the lung

     d) echinococcosis

5. For mediastinal tumors, the earliest symptom is:

     a) Horner's symptom

     b) Gref’s symptom

     c) symptom of the superior vena cava

     d) hemoptysis

6. The most characteristic for Pencoast cancer is:

     a) hemoptysis

     b) pain behind the sternum

     c) Horner's syndrome

     d) hoarseness of voice

     e) edema in the neck and face

7. The lung cancer should be differentiated:

     a) with protracted pneumonia

     b) with pulmonary tuberculosis

     c) with a benign tumor

     d) with metastases of other tumors in the lungs

     e) with all listed

8. The main radiographic evidence of central lung cancer is:

     a) the presence of a rounded shadow in the lung

     b) the presence of a "path" to the root of the lung

     c) atelectasis

     d) high diaphragm standing

     e) displacement of the mediastinum

9. The method that allows you to verify a diagnosis with an average syndrome is:

     a) lateral tomography

     b) bronchography

     c) dynamic observation

     d) fibrobronchoscopy with biopsy

     e) computed tomography

10.Cerular cancer of the lung does not include cancer:

     a) segmental bronchus

     b) pneumonia-like

     c) bronchoalveolar

     d) cavity (cavity form)

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

1. Evtihov R.М., Putin М.Е., Shulutko А.M. Clinical surgery, 2006
2. Kuzin М.И. Surgical diseases. Textbook. М.,2015.
3. Savelev V.S., Kirienko А.I. Surgical diseases. М.,2017.
4. Lection of department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-d,e | 6-c |
| 2-c | 7-e |
| 3-а | 8-e |
| 4-b | 9-d |

**Class theme:** “Varicose disease of the lower extremities”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Definition of the term "varicose veins"

Classification of varicose veins in the clinic, etiology, anatomy, pathogemodynamics (CEAP)

What are the causes of the development of primary varicose veins of the lower extremities

List the functional tests that allow you to determine the consistency of the valve apparatus of the veins of the limb and the patency of the deep veins

Instrumental diagnostic methods used in the examination of patients with chronic venous insufficiency

Differential diagnosis of varicose veins with other diseases (elephantiasis, postthrombophlebitis, congenital angiodysplasia, etc.)

What are the methods of prevention of varicose veins?

Possible complications of varicose veins

Methods of treatment of varicose veins

b) **Homework**

Make the table or chart of:

classification of varicose veins;

features of the structure of the valve apparatus of the veins of the limbs;

methods of examination of patients with varicose veins (functional tests);

complications of varicose veins;

methods of surgical treatment of varicose veins of extremities.

c) **Theme of essay for performance at the classroom:**

1. Topography of veins of lower extremities.

2. Pulmonary embolism

3. Modern methods of diagnosis of varicose veins.

4. Modern principles and methods of surgical treatment of varicose veins.

**Tests for homework**

1. The superficial veins of the lower extremities include:

     a) total femoral vein

     b) large saphenous vein

     c) small saphenous vein

     d) superficial femoral vein

     e) the lower leg veins

2. To determine the patency of deep veins of the lower extremities, samples are taken:

     a) Pratt I

     b) Pratt II

     c) Troyanov-Trendelenburg

     d) Fegan

     e) Delbe-Pertes

3. The most informative method of diagnosis of varicose veins is:

     a) sphygmography

     b) thermography of extremities

     c) radioindication with labeled fibrinogen

     d) ultrasonic duplex scanning

     e) phlebography

     f) polarography

4. By what research can the condition of the valvular apparatus of the communicating veins be determined?

     a) Troyanov-Trendelenburg trial

     b) duplex scanning of veins

     c) phlebography

     d) Delbe-Pertes test

     e) Sheinis test

5. What research can reveal the inconsistency of osteal valves of superficial veins?

     a) Sheinis test

     b) the Delbe-Perthes test

     c) Trianov-Trendelenburg trial

     d) Pratt-II trial

     e) Gachenbruch test

     e) duplex scanning

     g) phlebography

6. Complications of varicose veins include:

     a) lymphostasis

     b) bleeding

     c) varicothrombophlebitis

     d) trophic ulcer

     e) PE

7. For congenital venous dysplasia it is characteristic:

     a) transient edema of the limb

     b) an increase in the limb in the volume

     c) skin hyperthermia in the area of ​​dilated veins

     d) presence of dense lymphatic edema

     e) trophic ulcers

8. For elephantiasis (lymphedema) clinical symptoms are characteristic :

     a) varicose veins of the subcutaneous veins

     b) trophic ulcers

     c) transient edema of the limb

     d) dense persistent swelling of the limb

9. Select the operations aimed at eliminating the veno-venous discharge through the perforating veins:

     a) Troyanov-Trendelenburg

     b) Babcock

     c) Coquette

     d) Linton

     e) electrocoagulation of superficial veins

10. Select the surgery to remove the superficial veins of the limb:

     a) Operation of Madelung

     b) Operation of Babcock

     c) Operation of Linton

     d) the Troyanov-Trendelenburg operation

     e) Operation of Narat

**COMPLICATIONS OF VARICOSIS**

**Acute thrombophlebitis**

Control questions:

1. What are the causes that lead to the development of acute surface thrombophlebitis?

2. Indicate the main clinical differences between acute varicothrombophlebitis and erysipelas of lower limbs.

3. Name the main clinical symptoms of thrombophlebitis and the methods of its diagnosis.

4. Conduct a differential diagnosis of acute thrombophlebitis with acute phlebothrombosis.

**Tests for homework**

1. Acute varicothrombophlebitis is:

     a) inflammation and thrombosis of large or small subcutaneous veins

     b) thrombosis of the portal vein

     c) phlebitis of the brachial vein

     d) Parkes-Weber-Rubashov disease

     e) aneurysm of the common femoral vein

2. In the diagnosis of acute varicothrombophlebitis, the most informative is:

     a) palpation

     b) phlebography

     c) ultrasound of veins

     d) rheovasography

     e) all methods

3. Acute varicothrombophlebitis is differentiated with all diseases, except:

     a) lymphostasis

     b) erysipelas of inflammation

     c) lymphangitis

     d) obliterating endarteritis

     e) varicose veins

4. Acute varicothrombophlebitis is characterized by everything except:

     a) the presence of the syndrome of "intermittent claudication"

     b) marked swelling of the entire limb

     c) the presence of varicose veins

     d) pain along the thrombosed vein

 e) pain in the lower abdomen

**Acute phlebothrombosis**

Control questions:

1. List the reasons leading to the development of acute deep phlebothrombosis.

2. Name the main clinical manifestations of acute deep phlebothrombosis.

3. Instrumental research methods used in the diagnosis of deep phlebothrombosis.

4. Indicate diseases with which differential diagnosis of acute deep phlebothrombosis should be carried out.

**Tests for homework**

1. In acute deep phlebothrombosis at the level of the shin, the symptoms which can be positive are:

     a) Samuels

     b) Moses

     c) Goldflam

     d) Homansa

     e) Lovenberg

2. The most informative method of instrumental diagnosis of acute deep phlebothrombosis is:

     a) rheovasography

     b) phlebography

     c) duplex angioscanning

     d) radiography

3. Differential diagnosis of acute deep phlebothrombosis of extremities should be carried out with:

     a) erysipelas of the skin

     b) lymphostasis

     c) acute violation of the arterial blood circulation of the limb

     d) syndrome of prolonged tissue crushing

     e) acute radiculitis

4. Ileofemoral phlebothrombosis is characterized by:

     a) pronounced edema of the entire limb

     b) violation of movements in the joints of the limb

     c) increase in the temperature of the skin of the limb

     d) cold extremity

5. Deep phlebothrombosis is characterized by:

     a) reduction of skin sensitivity

     b) increased skin sensitivity

     c) preservation of skin sensitivity

**Methods of control of the homework at the classroom:**

1. The solution of situational problems of different levels of assimilation.

2. Curation of patients with varicose veins (complaints, anamnesis, assessment of general condition, paraclinical methods of examination, diagnosis, differential diagnosis, choice of treatment method).

3. The patient's report to the group.

4. Reading phlebograms.

5. Presentation of micro-abstracts on the subject of the lesson

1. Savelev V.S.,Phlebology. A guide for doctors. М., 2001.
2. Evtihov R.М., Putin М.Е., Shulutko А.M. Clinical surgery, 2006
3. Kuzin М.И. Surgical diseases. Textbook. М.,2006.
4. Savelev V.S., Kirienko А.I. Surgical diseases. М.,2005.
5. Acute diffuse peritonitis. Struchkova А.I.,М.,1987.
6. Lection of department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-b,c | 6-b,c,d,e |
| 2-а,e | 7-b,c,e |
| 3-d,e | 8-d |
| 4-b,c,e | 9-c,d |
| 5-c,e,f,g | 10-а,b,d,e |
| Acute thrombophlebitis |

|  |  |
| --- | --- |
| 1-а | 3-d |
| 2-c | 4-а,b,e |
| Acute phlebothrombosis |
| 1-b,d,e | 4-а |
| 2-c | 5-c |
| 3-b,c,d |  |

**Class theme:** “Obliterating arterial diseases of the extremities”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Definition of the concept of obliterating diseases of the arteries.

Classification of obliterating diseases of the arteries of the extremities by the types and stages of the pathological process.

Causes leading to the development of obliterating endarteritis and obliterating atherosclerosis.

Features of the vascular lesions are characteristic for obliterating endarteritis, atherosclerosis, Raynaud's disease, Buerger's disease.

List the angiographic signs characteristic of obliterating endarteritis and obliterating atherosclerosis.

Specify the features of the clinical course, characteristic for obliterating endarteritis, obliterating atherosclerosis, Buerger's disease, Raynaud's disease.

Differential diagnosis of obliterating diseases of arteries of extremities (obliterating atherosclerosis, endarteritis, Raynaud's disease, Burger's disease). The importance of ultrasound in the differential diagnosis of obliterating diseases of the arteries.

Conservative and operative treatment of obliterating atherosclerosis.

b) **Homework:**

     Make a chart or a table of:

anatomical structure of arterial bed of extremities;

clinical classification of obliterating diseases;

functional methods of examination of patients with arterial pathology;

principles of treatment of obliterating diseases of arteries;

methods of surgical treatment of obliterating diseases of arteries of extremities.

c) **Theme of essay for performance at the classroom:**

1. Topographic anatomy of the arteries of the lower extremities.

2. Modern methods of examination of patients with pathology of the arteries of the extremities.

3. Conservative treatment of obliterating diseases of extremities.

4. Modern methods of surgical treatment of obliterating diseases of extremities.

**Tests for homework**

1. Lerish's syndrome is:

     a) brachiocephalic nonspecific arteritis

     b) atherosclerotic occlusion of the bifurcation of the abdominal aorta

     c) capillaropathy of the distal parts of the limb

     d) migrating thromboangiitis

     e) occlusion of the inferior vena cava

2. The symptom of "plantar ischemia" is not typical for:

     a) postthrombophlebitic disease

     b) obliterating atherosclerosis

     c) Raynaud's disease

     d) obliterating endarteritis

     e) diabetic angiopathy

3. In the diagnosis of obliterating atherosclerosis the most informative method is:

     a) sphygmography

     b) thermography

     c) ultrasonic dopplerography

     d) aorto-arteriography

     e) rheovasography

4. For surgical treatment of Lerish's syndrome the best method is:

     a) lumbar sympathectomy for Dietsu

     b) thrombectomy with Fogarty catheter

     c) thoracic sympathectomy for Ognev

     d) angioplasty

     e) aorto-bifemoral shunting

5. With obliterating endarteritis, the most commonly affected are:

     a) aortic arch and brachiocephalic trunk

     b) thoracic aorta

     c) lower leg arteries

     d) aortic bifurcation

     e) femoral arteries

6. Chronic arterial ischemia is characterized by everything except:

     a) baldness of the limb

     b) skin pigmentation

     c) deformation of the nails

     d) skin atrophy

     e) cyanosis of the 1st finger

7. High "intermittent claudication" and impotence are signs of:

     a) Raynaud's disease

     b) diabetic angiopathy

     c) obliterating endarteritis

     d) Lerish syndrome

     e) ileofemoral phlebothrombosis

8. In a patient with obliterating atherosclerosis of the IY stage, occlusion of the femoral, popliteal and tibial arteries, gangrene of the foot the operation of choice is:

     a) amputation at the hip level

     b) lumbar sympathectomy

     c) reconstructive vascular surgery

     d) microsurgical transplantation of a large epiploon on the shank

     e) conservative treatment

9. For obliterating atherosclerosis of III stage it is characteristic:

     a) varicose veins of the subcutaneous veins

     b) trophic ulcer on the shin

     c) "intermittent claudication" after 500 meters

     d) absence of pulsation on the common carotid artery

     e) pain in the limb at rest

10. The most effective drug for the treatment of obliterating diseases of the arteries and diabetic angiopathy is:

    a) papaverine

    b) heparin

    c) vazoprostane

    d) troxevasin

    e) trental

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

1. Evtihov R.М., Putin М.Е., Shulutko А.M. Clinical surgery, 2006
2. Kuzin М.И. Surgical diseases. Textbook. М.,2015.
3. Savelev V.S., Kirienko А.I. Surgical diseases. М.,2017.
4. Lection of department.

# Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-b | 6-b |
| 2-а | 7-d |
| 3-d | 8-а |
| 4-e | 9-e |
| 5-c | 10-c |

**Class theme:** “Portal hypertension”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Definition of "Portal hypertension".

Classification of portal hypertension, features of the structure of portal blood circulation.

The causes of portal hypertension.

Features of clinical manifestation of various forms of portal hypertension.

Differential diagnosis of portal hypertension with: heart failure, biliary tract diseases, parasitic liver diseases (echinococcosis), liver tumors, blood diseases, peptic ulcer.

The role of splenoportography and ultrasound in the differential diagnosis of portal hypertension.

Complications of portal hypertension (bleeding, ascites, peritonitis, etc.).

Methods of examination of patients with portal hypertension.

Medical tactics in the treatment of bleeding from varicose veins of the esophagus with portal hypertension.

Medical tactics in the treatment of patients with various forms and stages of portal hypertension.

b) **Homework:**

     Make a chart or a table of:

classification of portal hypertension;

differential diagnostics;

scheme of portal blood circulation.

      Know:

methods of examination of patients with portal hypertension;

complications of portal hypertension;

methods of surgical treatment of portal hypertension;

methods of stop bleeding from varicose veins of the esophagus;

types of radical surgery with portal hypertension;

types of palliative surgery in portal hypertension.

c) **Theme of essay for performance at the classroom:**

1. Structure of portal system.

2. Patogenesis of portal hypertension.

3. Methods of diagnostic of portal hypertension.

4. Methods of arrest of bleeding from varicose veins of the esophagus.

**Tests for homework**

1. For portal hypertension the characteristic symptoms are:

     a) heart failure

     b) ascites

     c) respiratory failure

     d) splenomegaly

     e) hypersplenism

     e) expansion of port-caval anastomoses

     g) hypertension

2. According to clinical manifestations and the status of portohepatical blood flow, the stages are:

     a) asymptomatic

     b) compensated

     c) complications

     d) decompensated

     e) subcompensated

     f) hidden

3. The cause of the superhepatic blockade of portal blood circulation is:

     a) liver tumor

     b) atresia of the portal vein

     c) cirrhosis of the liver

     d) Cirrhosis of the peak

     e) Chiari's disease

4. The cause of intrahepatic blockade of portal circulation is:

     a) liver fibrosis

     b) Badda-Chiari Syndrome

     c) Cirrhosis of the peak

     d) thrombosis of the portal vein

     e) thrombosis of the portal vein with secondary portal cirrhosis

     e) Chiari's disease

5. The cause of extrahepatic blockade of portal blood circulation is:

     a) congenital stenosis of the portal vein

     b) atresia of the portal vein

     c) stenosis of the splenic vein

     d) fibrosis of the liver

     e) liver tumors

     e) cirrhosis of the liver

6. The most informative method for diagnosing portal hypertension is:

     a) laboratory biochemical studies

     b) computed tomography

     c) cholangiography

     d) Splenoportography

     e) celiacography

     f) ultrasound examination of the liver

     g) liver scintigraphy

7. For the syndrome of hypersplenism is characteristic:

     a) increase in the size of the spleen

     b) an increase in the number of blood elements

     c) reduction in the number of blood elements

     d) ascites

     e) expansion of porto-caval anastomoses

     e) indigestion

8. Pressure in the portal vein in a healthy person is:

     a) 5-10 mm Hg

     b) 10-15 mm Hg

     c) 16-25 mm Hg

     d) 26-35 mm Hg

     e) 36 and above mm Hg.

9. Radical operations for the treatment of portal hypertension are:

     a) creation of direct port-caval anastomoses

     b) splenectomy

     c) Hepatic artery ligation

     d) splenic artery ligation

     e) the Eck operation

     f) Tanner operation

10. For the final arrest of bleeding from the varicose veins of the esophagus, the following methods are used:

     a) placement in the esophagus of the Blackmore probe

     b) Operation of Linton

     c) Tanner operation

     d) operation of Kalba

     e) resection of the stomach

**Methods of control of the homework at the classroom:**

1. The solution of situational problems of different levels of assimilation.

      2. Curation of patients with evaluation of the results of their examination, differential diagnosis, diagnosis, the definition of treatment tactics, the principles of conservative and surgical treatment.

      3. The patient's report to the group.

      4. Reading and analyzing splenoportogram.

      5. Presentations of essays on the topic of the lesson.

**Literature**

1. Evtikhov RM, Putin ME, Shulutko AM. Clinical surgery, 2006.

2. Kuzin M.I. Surgical diseases. Textbook. M., 2015.

3. Operative surgery, ed. prof. I. Littmann. Budapest, 1985.

4. Savelyev VV, Kirienko AI Surgical diseases. Textbook, t.1-2.M. 2017.

5. Savelyev VS Manual for emergency surgery of the abdominal cavity. M., 2004.

6. Lectures of the department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-b,d,e,f | 6-b,d,e |
| 2-b,d,e | 7-c |
| 3-d,e | 8-b |
| 4-а | 9-а,e |
| 5-а,b,c | 10-а,c |

**Class theme:** “Esophagus diseases”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Predisposing factors contributing to the development of esophageal cancer

What are the main clinical signs of esophageal cancer?

Specify how the radiological picture of achalasia of cardia differs from cancer of esophagus.

Instrumental research methods used in diseases of esophagus

b) **Homework:**

Make a table or charts of:

classification of diseases of the esophagus;

differential diagnostics;

blood supply to the esophagus;

complications;

methods of surgical treatment.

c) **Theme of essay for performance at the classroom:**

1. Surgical anatomy of the esophagus.

2. Methods of diagnosis of diseases of the esophagus.

3. Principles of surgical treatment of esophageal cancer.

4. Complications of hernia of the esophageal aperture of the diaphragm.

**Tests for homework**

1.In the initial stages of cancer of the esophagus during X-ray examination, one finds:

     a) violation of esophageal motility

     b) a symptom of a "niche"

     c) stiffness of the wall section

     d) non-expansion of the folds of the mucosa

     e) significant expansion of the overlying department

2. The main method of differential diagnosis of esophageal diverticula are:

     a) esophagoscopy

     b) contrast X-ray examination

     c) ultrasound

     d) radionuclide study

     e) computed tomography

3. Centerer's diverticulum of the esophagus is localized:

     a) in the field of tracheal bifurcation

     b) above the diaphragm

     c) in the upper third of the esophagus

     d) in the pharyngeal-esophageal transition

4. The most dangerous complication of hernia of the esophageal aperture of the diaphragm is:

     a) gastric bleeding

     b) Insufficiency of the cardia

     c) strangulation of the stomach

     d) reflux esophagitis

5. Radiological signs of achalasia cardia are all except:

     a) a considerable length of the narrowed part of the esophagus

     b) a symptom of a "niche"

     c) accumulation defect

     d) a symptom of the "mouse tail"

     e) rigidity and non-expansion of the folds of the mucosa in the affected area

6. With diverticulitis of cervical esophagus is indicated:

     a) intussusception of the diverticulum

     b) probe power supply

     c) removal of the diverticulum

     d) endoscopic dissection at the site of narrowing below the diverticulum

     e) all of the above

7. In patients with convoluted and multiple post-burn strictures of the esophagus, preference is given to bouginage:

     a) "blind" through the mouth

     b) under the control of an esophagoscope

     c) retrograde

     d) hollow radiocontrast bougies on a metal conductor

     e) "bougie without end" through the gastrostomy

8. What degree of dysphagia does the clinic correspond to, if any food passes, but the patient has to drink water with it?

     a) 2 degrees

     b) 3 degrees

     c) 4th degree

9. What are the contraindications to radical surgery for esophageal cancer:

     a) the presence of concomitant diseases

     b) exhaustion

     c) cardiac and respiratory insufficiency

     d) marked hepatic and renal insufficiency

10. When localizing a tumor in the lower thoracic or abdominal department of the esophagus, the operation of choice is:

     a) Dobromyslov-Torek's operation

     b) resection of the esophagus and proximal stomach

     c) Lewis operation

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

1. Berezov Yu.E. Esophageal carcinoma. M., 1979.

2. Evtikhov RM, Putin ME, Shulutko AM and others. Clinical surgery. Ed. «GEOTAR-MEDIA», 2006.

3. Kuzin M.I. Surgical diseases. Textbook. M., 2015.

4. Surgical diseases: textbook: in 2 tons. (Edited by VS Savelyev, AI Kirienko. - 2nd ed., Rev.- Moscow: 2017.

5. Shalimov A.A. Sayenko V.F. Surgery of the digestive tract. Kiev, 1987.

6. Lectures of the department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-а,c,d | 6-c |
| 2-b | 7-e |
| 3-d | 8-а |
| 4-а | 9- b,c,d |
| 5-b,c,d | 10-b |

**Class theme:”**Breast diseases**”**

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

**Mastitis:**

Definition, etiology and pathogenesis.

Classification, clinical picture.

Treatment of mastitis.

**Mastopathy:**

Definition, etiology, pathogenesis.

Classification, clinical picture, diagnosis.

Treatment of mastopathy.

**Benign breast tumors:**

Classification.

Clinical picture.

Diagnostics.

Treatment.

**Mammary cancer:**

Definition.

Stages of breast cancer.

Classification.

Clinical picture.

Ways of metastasis.

Diagnostics.

Differential diagnosis of breast cancer with mastopathy, benign breast tumors.

Treatment of breast cancer.

b) **Homework**

Make the table or charts of:

diagnosis of breast diseases;

treatment of breast cancer.

c) **Theme of essay for performance at the classroom:**

1. Features of the structure of the breast.

2. Features of blood supply and lymphatic drainage of the breast.

3. Conservative and operative treatment of breast diseases.

4. Modern principles and methods of treatment of breast cancer.

**Tests for homework**

1. Tumor of a breast with a diameter of 1.5 cm with enlarged axillary lymph nodes is referred to the stage:

     a) 1

     b) 2 A

     c) 2 B

     d) 3A

     e) 3B

2. For breast cancer, metastases are not characteristic:

     a) into the lungs

     b) in the liver

     c) in the brain

     d) to the navel

     e) in the bone

3. The most effective research method for a breast tumor of less than 0.5 cm is:

     a) mammography

     b) ultrasound

     c) thermography

     d) palpation

     e) radioisotope diagnostics

4.In the lying position, the breast tumor disappears with the symptom of:

     a) Umbilications

     b) Koenig

     c) Payr

     d) Pribram

     e) "orange peel"

5. The most frequent tumor localization in the nodal form of breast cancer is:

     a) in the upper quadrant

     b) in the upper quadrant

     c) in the lower inner quadrant

     d) in the lower-middle quadrant

6. With mastopathy:

     a) König's symptom is negative

     b) König's symptom is positive

7. At nodal mastopathy it is indicated:

     a) conservative treatment

     b) surgical treatment

8. With edematous-infiltrative form of breast cancer in regional lymph nodes:

     a) metastases appear early

     b) metastases appear late

9. At the 2 nd stage of breast cancer, the tumor reaches the size:

     a) up to 2 cm

     b) 2-5 cm

     c) 1 cm

     d) 5-7 cm

     e) more than 8 cm

10. Symptoms of breast cancer:

     a) a symptom of Kening

     b) a symptom of Pribram

     c) a symptom of the "umbilicating" of the skin

     d) misalignment of the nipple

     e) skin over the tumor in the form of an "orange" peel

     f) skin over the tumor in the form of a "lemon peel"

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

 a) collection of complaints

      b) anamnesis

      c) assessment of the general condition of the patient

      d) determination of the symptoms of the disease

      e) evaluation of laboratory-instrumental methods of research

      e) diagnosis

      g) differential diagnosis

      h) conservative and surgical treatment

 3. Performance with essay.

**Literature**

1. Evtikhov RM, Putin ME, Shulutko AM and others. Clinical surgery. Ed. «GEOTAR - Media», 2006

2. Kuzin M.I. Surgical diseases. Textbook .- M., 2015.

3. Savelyev VS, Kirienko A.Y. Surgical diseases. Textbook.-M .: GEOTAR-Media .- 2017.

4. Lectures of the department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1- c | 6- а |
| 2- b,c,d | 7- b |
| 3- а | 8- а |
| 4- b | 9- b |
| 5- а | 10- а,b,c,d, f |

**Class theme:** “Thyroid diseases”

**When student prepares to the practical lesson, it is necessary to pay attention to**:

а) **List of issues for practical lesson:**

Causes leading to the development of endemic goiter.

      Causes leading to the development of chronic thyroiditis.

      Clinical picture of diffuse toxic goiter.

      Clinical picture of thyroid cancer.

      Instrumental and laboratory diagnostic methods used in diseases of the thyroid gland.

      Methods of instrumental diagnostics used in thyroid cancer.

b) **Homework:**

Make the table or charts of:

classification of diseases of the thyroid gland;

blood supply of the thyroid gland;

differential diagnosis of goiter, cancer;

complications of thyroid cancer;

methods of surgical treatment of goiter and thyroid cancer.

c) **Theme of essay for performance at the classroom:**

1. Fascias of the neck.

2. Topographical anatomy of the thyroid gland.

3. Modern methods of diagnosing thyroid diseases.

4. Methods of surgical treatment of goiter and thyroid cancer.

**Tests for homework**

1. In a patient with an endemic diffuse goiter, the enlarged right lobe of the thyroid gland is visible. Specify the degree of enlargement of the thyroid gland to which this clinical picture corresponds:

     a) degree 1

     b) degree 2

     c) degree 3

     d) degree 4

     e) degree 5

2. For endemic goiter, scanning is characterized by the identification of foci of increased accumulation of the iodine isotope 131:

     a) yes, it is

     b) no, it isn’t

3. Positive eye symptoms of Delrymple, Stelvag, Gref, Moebius are characteristic for:

     a) hypothyroidism

     b) goiter of the II degree

     c) hyperthyroidism

     d) thyroid cancer

4. The main laboratory signs of diffuse toxic goiter are:

     a) decrease in the level of calcium in the blood

     b) increased TSH and T3

     c) increase in T4 and T3

     d) decrease in T4 and T3

5. Appearance of the symptom of "hoarseness of the voice" in Riedel's goit is explained by:

     a) involvement of the facial nerve

     b) involvement of the trachea and esophagus

     c) the presence of metastases

     d) involvement of the laryngeal nerves

6. Name the clinical symptoms of chronic fibrotic thyroiditis:

     a) with dense palpation of iron

     b) the skin above the goiter is mobile

     c) lymph nodes of the neck are enlarged, inactive

     d) there is a hoarse voice

7. Cramps, a symptom of Chvostek and Trusso after a strumectomy indicate:

     a) hypothyroidism

     b) thyrotoxic crisis

     c) trauma of the laryngeal nerves

     d) hypoparathyroidism

     e) thyrotoxicosis

8. Complications that are not typical for operations on the thyroid gland are:

     a) bleeding

     b) air embolism

     c) fat embolism

     d) damage to the trachea

     e) damage to the recurrent nerve

9. For the detection of malignant tumors of the thyroid gland is not applied:

     a) trepanobiopsy

     b) needle biopsy with a thick needle

     c) trial excision

     d) determination of thyroid antibody titer

     e) fine needle needle biopsy

10. For toxic thyroid adenoma the operation is shown:

     a) subtotal resection of the thyroid gland

     b) resection of the thyroid gland

     c) resection of the thyroid gland

**Methods of control of the homework at the classroom:**

 1. The solution of situational tasks of different levels of assimilation

 2. Curation of patients with evaluation of the results of their examination:

а) collecting complaints, studying anamnesis;

b) assessment of the general condition of the patient;

c) identification of local signs and symptoms of a disease;

d) assessment of paraclinical studies on the history of the disease;

e) differential diagnostic;

f) conclusions on diagnosis

g) principles of conservative and operative treatment

h) definition of treatment tactics

 3. Show the patient to the group.

 4. Reading and analysis of radiographs

 5. Performance with essay.

**Literature**

1. Evtikhov RM, Putin ME, Shulutko AM and others. Clinical surgery. Ed. «GEOTAR-MEDIA», 2006.

2. Kuzin M.I. Surgical diseases. Textbook. M., 2015.

3. Potemkin V.V. Endocrinology (textbook). M., 1986.

4. Surgical diseases: textbook: in 2 tons. (Edited by VS Savelyev, AI Kirienko. - 2nd ed., Rev.- Moscow: 2017.

5. Lectures of the department.

Attachment

Answers to tests

|  |  |
| --- | --- |
| 1-c | 6-а,b,d |
| 2-b | 7-d |
| 3-c | 8-c |
| 4-c | 9-e |
| 5-d | 10-b |