

Документ подписан простой электронной подписью  
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## ASSESSMENT TOOLS

### CLINICAL SURGERY

Curriculum	31.05.01 General Medicine
Specialty	General Medicine
Form of education	Full-time
Designer Department	Surgical diseases
Graduate Department	Internal diseases

#### Written Assessment Phase.

##### Semester 12.

#### Online proctored assessment (Moodle LMS)

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

- a) weakness of the abdominal muscles
- b) alcohol abuse
- c) consumption of fatty and spicy foods
- d) consumption of large amounts of food rich in fiber\*
- e) psychological trauma

##### 2. Intussusception is classified as which type of intestinal obstruction?

- a) spastic
- b) paralytic
- c) obstructive
- d) strangulating
- e) mixed\*

##### 3. The earliest and most persistent symptom of acute small intestinal obstruction is:

- a) retention of stool and gases
- b) increased peristalsis
- c) cramping abdominal pain\*
- d) abdominal asymmetry
- e) vomiting

##### 4. In case of nodulation, intestinal obstruction and inversion:

- a) conservative measures should be taken to resolve the obstruction
- b) emergency surgery is indicated \*
- c) surgery in the "cold" period is preferable
- d) dynamic observation is necessary
- e) all answers are incorrect

##### 5. Small-intestinal invagination is not characterized only by:

- a) spotting from the rectum
- b) acute development in children
- c) palpable tumor-like formation in the right iliac region

- d) cramping abdominal pain
- e) predominant development in adults\*

**6. In acute intestinal obstruction, only:**

- a) angiography of the celiac artery is practically not used. \*
- b) laboratory tests
- c) abdominal auscultation
- d) X-ray examination of the abdominal cavity
- e) finger examination of the rectum

**7. In case of perforation of an ascending colon tumor with liver metastases, the following is indicated:**

- a) right-sided hemicolectomy with ileotransversoanastomosis
- b) right-sided hemicolectomy, terminal ileostomy
- c) suturing of the perforation, ileotransversoanastomosis
- d) right-sided hemicolectomy, colostomy and ileostomy\*
- e) cecostomy

**8. Low intestinal obstruction is characterized by everything except:**

- a) gradual increase in symptoms
- b) bloating
- c) appearance of Cloiber cups
- d) Chair delays
- e) rapid (during the day) dehydration\*

**9. The cause of the development of paralytic intestinal obstruction cannot be:**

- a) peritonitis
- b) lead poisoning\*
- c) acute pancreatitis
- d) retroperitoneal hematoma
- e) disorders of mesenteric circulation

**10. In acute obstructive intestinal obstruction, everything is observed except:**

- a) cramping abdominal pain
- b) bloating
- c) gradual development of peritonitis
- d) constant abdominal pain\*
- e) stool and gas retention

**Stage: conducting an interim assessment in the discipline (credit)**

**The intermediate certification is carried out in the form of a test**

**The assignment consists of several stages:**

1. Testing using distance learning on the platform (Moodle)
2. Solving situational problems.

## **SAMPLE TEST QUESTIONS (12th semester)**

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

- a) weakness of the abdominal muscles
- b) alcohol abuse
- c) consumption of fatty and spicy food

- d) consumption of large amounts of fiber-rich food\*
- e) psychotrauma

**2. Invagination refers to obstruction:**

- a) spastic
- b) paralytic
- c) obturative
- d) strangulation
- e) mixed\*

**3. The earliest and most persistent symptom of acute small intestinal obstruction is:**

- a) retention of stool and gases
- b) increased peristalsis
- c) cramping abdominal pain\*
- d) abdominal asymmetry
- e) vomiting

**4. In case of nodulation, intestinal obstruction and inversion:**

- a) conservative measures should be taken to resolve the obstruction
- b) emergency surgery is indicated \*
- c) surgery in the "cold" period is preferable
- d) dynamic monitoring is necessary
- e) all answers are incorrect

**5. Small-intestinal invagination is not characterized only by:**

- a) spotting from the rectum
- b) acute development in children
- c) palpable tumor-like formation in the right iliac region
- d) cramping abdominal pain
- e) predominant development in adults\*

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**10. In acute obstructive intestinal obstruction, everything is observed except:**

- a) cramping abdominal pain
- b) bloating
- c) gradual development of peritonitis
- d) constant abdominal pain\*
- e) stool and gas retention

**List of situational tasks**

**Scenario 1.** A 45-year-old patient was admitted to the clinic with complaints of abdominal pain, stool and gas retention, and general weakness. She considers herself ill for 6 months, when, against the background of constipation, the patient periodically began to experience bloating, abdominal pain, gas retention and stool. The patient took laxatives, sometimes gave enemas.

Objectively: the abdomen is moderately swollen, and on palpation it is mild and painless in all parts. Intestinal motility is well monitored. The Sklyarov-Mathieu symptom is negative. With percussion, tympanitis. The symptom of peritoneal irritation is negative.

Rectal examination revealed no pathology.

The patient received a cleansing enema. After it, there was abundant stool, and the gases left. The patient began to feel better and was discharged home.

After being discharged from the hospital, the patient continued to complain of general weakness, persistent constipation, bloating, and intermittent cramping pains in the lower abdomen. The patient was admitted to the clinic again with a similar clinical picture.

- What is your intended diagnosis?
- What medical mistakes were made when the patient was first admitted to the clinic?
- How should I start examining the patient?
- The patient's examination plan?

**Answer:** The expected diagnosis: coprostasis, recurrent tumor obstructive intestinal obstruction, dolicho, megasigma. The examination of the patient should begin with rectoscopy and irrigoscopy, which make it possible to clarify the diagnosis. At the first admission of the patient, these studies were conducted.

**Scenario 2.** An 18-year-old patient was admitted to the clinic with cramping abdominal pain and repeated vomiting.

I got sick 40 hours ago when I had an acute cramping pain in my stomach and vomiting. A local therapist was called, who diagnosed acute gastritis and prescribed treatment. The next day, the patient continued to have cramping abdominal pain and vomiting. According to the patient, there was an unhealthy stool the day before.

Objectively: pulse 110 per minute, satisfactory qualities. BP 110/70 mmHg. The facial features are pointed. The tongue is moist and moderately covered with a whitish coating. The abdomen is moderately swollen, soft on palpation, painful on the right. The symptoms of Sklyarov-Mathieu, Shchetkin-Blumberg are pronounced.

An overview X-ray of the abdominal cavity reveals a large number of Cloiber bowls.

- What is your preliminary diagnosis?
- How do you assess the actions of the district doctor?
- Is it advisable to conduct an X-ray contrast examination?

- Further tactics and treatment?

**Answer:** The preliminary diagnosis is acute small intestinal obstruction. The district therapist was obliged to consult the patient with a surgeon, and not leave him at home. Radiopaque examination is not advisable, because it leads to a delay in surgical intervention. After preoperative preparation, the patient is subject to emergency surgery – laparotomy.

**Scenario 3.** A 56-year-old patient was taken to the clinic five hours after the onset of the disease, complaining of severe abdominal pain, nausea, vomiting, and general weakness.

The disease began with sudden severe abdominal pain, followed by nausea, and a single vomiting.

Objectively: the patient is rushing. The skin and visible mucous membranes are pale. Pulse is 120 per minute, weak filling. Blood pressure is 90/50 mmHg. Heart tones are deaf. The abdomen is slightly swollen, soft, and moderately painful. The Shchetkin-Blumberg symptom is weakly positive. Percussion – tympanitis. Intestinal motility is barely audible.

An ECG was performed, and the diagnosis of myocardial infarction was removed. X-ray examination: there are multiple fluid levels with gas bubbles above them in the left iliac region, and the same fluid levels in the right half of the abdominal cavity, but in a smaller amount. Lateroscope examination shows the fixation of the cups in the right half of the abdomen.

- What is your intended diagnosis?
- What diseases should be treated for differential diagnosis?
- Tactics and treatment?

**Answer:** The intended diagnosis is acute strangulation (inversion, nodulation) small intestinal obstruction. Differential diagnosis should be performed with perforated and bleeding gastric ulcer and duodenal ulcer, acute pancreatitis, thromboembolism of the superior mesenteric artery, abdominal myocardial infarction. The patient is subject to emergency surgery. Preoperative preparation is mandatory.

**Scenario 4.** Patient O., 42 years old, went to a local therapist with complaints of epigastric pain, which worsens after eating and, especially at night, heartburn, belching.

It was revealed from the medical history that he suffered from peptic ulcer with ulcer localization in the duodenum bulb. He was repeatedly treated in the gastroenterology department during periods of exacerbations. Three years before the treatment, he was operated on for a perforated duodenal ulcer. I was worried about hunger pains, heartburn, and rotten belching. The symptoms decreased during treatment with antacids. After the operation, within 6 months, the existing symptoms were joined by vomiting of eaten food, weight loss, weakness. He underwent emergency surgery one year ago. The scope of the operation is unknown. A real deterioration in the condition during the last week. Epigastric pain resumed, intense pain that could not be relieved by eating or antacids, heartburn, belching, and nighttime pain appeared. He notes a general deterioration of well-being.

On examination: the patient is exhausted. The skin is slightly pale and dry. In the lungs, breathing is vesicular, there is no wheezing, BDD is 18 per minute. The heart tones are clear, rhythmic, heart rate is 76 beats per minute, blood pressure is 120/80 mm Hg. The tongue is moist, thickly coated with a white coating at the root. The abdomen is scaphoid in shape, and there is a postoperative scar along the midline, 18 x 0.5 cm without signs of inflammation. On palpation, the abdomen is soft, painful in the epigastrium and in the right hypochondrium. Peristalsis is active. The stool is mushy 2-3 times a day and brown in color. The kidney area is not changed. Palpation - soreness is not detected. Urination is free, diuresis daily is 1300 ml.

Blood test: Hb- 100 g/l; erythrocytes –  $3.8 \times 10^{12}$ , hematocrit – 34%; color index – 0.9; leukocytes -  $6.9 \times 10^9$ , e-0, p-4, c-75, L-19, m-2; platelets –  $175.0$ ; ESR- 26 mm/h.

Urine analysis: yellow; cloudy; specific gravity – 1012; reaction – acidic; protein – 0.067 g /l; blood – negative; bile – negative; sugar – negative; leukocytes – 12-18; flat epithelium – completely in the field of vision; oxalates - +++.

Biochemical analysis: total bilirubin – 19.5 mmol/L, direct – 10.5 mmol/L; thymol sample – 1.0 units; ALT- 0.6 mmol/L; AST-0.4 mmol/L; total protein - 46 g/l; cholesterol – 5.1 mmol/L; urea – 18.0 mmol/l;

creatinine – 179 mmol/l; potassium – 7.0 mmol/L; sodium – 141 mmol/L; calcium – 1.1 mmol/L; chlorides – 110 mmol/l; glucose – 3.8 mmol/l; PTI – 89%; fibrinogen – 3.7 g/l; alkaline phosphatase – 168 mmol/L.

During X-ray examination: the esophagus is freely passable, its walls are elastic. The stump of the stomach on an empty stomach contains a large amount of fluid, has a funnel shape, the folds are poorly visualized, smoothed. Evacuation to the discharge loop is somewhat slowed down. The lumen of the anastomosis is 1.5 cm, and a stable barium depot of 1.0 x 1.0 cm is determined immediately after the anastomosis.

### Questions:

1. What preliminary diagnosis can be made for the patient?
2. What research methods should be used to make a diagnosis?
3. What diseases should be given a differential diagnosis?
4. What complication did the patient develop after suturing a perforated ulcer?
5. Tactics of patient treatment.

### Answers:

1. Peptic ulcer of anastomosis. Zollinger-Ellison syndrome.
2. FGDS, CT.
3. Cancer of the stomach stump. Zollinger-Ellison syndrome.
4. Stenosis of the gastric outlet.
5. Surgical treatment, resection.

**Scenario 5.** Patient F., 65 years old, was taken by the SP team to the emergency department of the surgical hospital 3 hours after the onset of the disease with complaints of sudden abdominal pain of a permanent nature, without a clear localization, and dry mouth.

The patient is moaning loudly, rushing about. Vomiting with the smell of intestinal contents was observed, which did not bring relief. His condition was progressively deteriorating.

He has a history of hypertension; arrhythmia; coronary heart disease; atherosclerosis of cerebral vessels; he is treated uncontrollably with antihypertensive drugs.

The general condition is serious. His face is pale and covered with cold sweat. The skin has a grayish tinge. In the lungs, breathing is vesicular, there is no wheezing. The heart tones are arrhythmic, and systolic murmur is heard above the aorta, the apex. The heart rate is 112 in 1 minute. Blood pressure 160/90 mmHg. Temperature 36.60 C. The tongue is dry, covered with a "dirty" coating. The abdomen is not swollen, participates in breathing, is mild, the pain on palpation does not increase. The liver is on the edge of the costal arch, painless. The spleen is not palpable. There are no symptoms of peritoneal irritation. Auscultation – peristalsis is not heard. Stool is frequent, watery, with an admixture of blood. During rectal examination, there was no overhanging or soreness of the walls of the rectum, no pathological formations were detected, and traces of watery stool with an admixture of blood were found on the glove. Palpation and percussion of the lumbar regions are painless. There are no dysuric phenomena.

Of the additional diagnostic methods: general blood analysis: Hb – 119 g/l.; in the morning. –  $5.0 \times 10^{12}/l$ .; Ht – repaired 35%; Color. very. – 0.9; ESR – 18 m/r; L –  $2.1 \times 10^9/l$ .; e – 1, very – 18, p. – 53, L. – 22, m – 6., general urinalysis: c/w; epiphany; acid; 1022; cax. – rel.; bel. – rel.; L – 3 – 4 in n/a.; ep. – 5 – 6 in n/a., biochemical research: non/protein. – 68 g/L.; Non/Bi. – 15.8 mmol/L.; ALP – 425 in the family; L- amylase – 169 g×L.; Alt – 0.5; Ast – 0.7; this. – It's in the family; insatiable. In the family, 4.0; Urea - 8.8 mmol/L.; cry. – 278 mmol/L.; K.+ - 5.2 mmol/L.; Na - 138 mmol/L.; Cl- - 103 mmol/L.

### The question:

1. Make a preliminary diagnosis.
2. What diseases should be differentiated from?
3. The scope of the additional examination.
4. What are the treatment tactics?
5. Types of surgical completion for this pathology.

### Answers.

1. Acute violation of mesenteric circulation in the stage of necrosis. Abdominal sepsis.

2. Perforation of a hollow organ.
3. CT angiography of abdominal organs. Diagnostic laparoscopy.
4. Surgical treatment.
5. Programmed laparotomy.