#### FEDERAL STATE BUDGET EDUCATIONAL INSTITUTION OF HIGHER EDUCATION "ROSTOV STATE MEDICAL UNIVERSITY" OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

#### FACULTY OF TREATMENT AND PREVENTION

Assessment materials for

the discipline of oncology

Speciality

medicinalcase

# 1. Scroll competencies, formed discipline (fully or partially)\*

#### universal (UK)/general cultural (OK)

Code and name of universal/ general cultural competence	Indicator(s) of achieving universal general cultural competence				

#### general professional (OPK):

Code and name	Achievement indicator(s)
general professional competence	general professional competence

#### professional (PC)

Code and name of professional	Indicator(s) of professional achievement
competencies	competencies
PC-6 ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision	
PK-8 ability to determine tactics management of patients with various nosological forms	
PC-9 readiness to manage and treat patients with various nosological conditions forms in outpatient and day hospital settings	

# 2. Kinds estimated materials V compliance With formed competencies

Name	Types of assessment materials	number of tasks		
competencies		for 1 competency		
PC-6	Closed tasks	25 with sample answers		
	Tasks open	75 with sample answers		
	type:Situational			
	tasks			
	Addition tasks			
PK-8	Closed tasks	25 with sample answers		
	Tasks open	75 with sample answers		
	type:Situational			
	tasks			
	Addition tasks			
PK-9	Closed tasks	25 with sample answers		
	Tasks open	75 with sample answers		
	type:Situational			
	tasks			
	Addition tasks			

### PC 6 Closed tasks

Task 1. Instructions: Choose one correct answer.

The dyspeptic form of the clinical course of colon cancer is more common when the tumor is localized

1) in the transverse colon

- 2) in the right colon
- 3) in the left colon
- 4) in the rectum

Response standard: 2) in the right parts of the colon

Task 2. Instructions: Choose one correct answer. Does not apply to molecular biological types of breast cancer 1) triple negative 2) luminal A 3) adrenal 4) Her -2\neu - positive *Response standard*: 3) adrenal

Task 3. Instructions: Choose one correct answer.DefeatcervicalLymph nodesleft, mediastinal, inguinallymph nodesAndspleen in Hodgkin's lymphoma is regarded as1) Stage III of the disease

2) Stage II of the disease

3) Stage I of the disease

4) IV stage of the disease

Response standard: 4) IV stage of the disease

Task 4. Instructions: Choose one correct answer. The concept of early cancer implies

1) severe dysplasia

2) stage 0-I cancer

3) stage II-III cancer

4) all stages of cancer except IV

Response standard: 2) cancer stages 0-I

Task 5. Instructions: Choose one correct answer.

Damage to the basal layer of the epidermis of the skin in melanoma corresponds to the degree of invasion according to Clark:

I
 V
 III
 IV
 Response standard: 1) I

Task 6. Instructions: Choose one correct answer.The most common clinical form of breast cancer is:1) mastitis-like2) edematous-infiltrative3) Paget's cancer

4) nodal *Response standard*: 4) nodal

Task 7. Instructions: Choose one correct answer.
The "in situ" criterion according to the TNM International Classification refers to 1) to cancer
2) to precancer
3) to benign tumors
4) to severe dysplasia *Response standard*: 1) to cancer

Task 8. Instructions: Choose one correct answer.
According to histological structure, gastric cancer is most often
1) adenocarcinoma
2) squamous cell carcinoma
3) signet ring cell carcinoma
4) neuroendocrine cell carcinoma

Response standard: 1) adenocarcinoma

Task 9. Instructions: Choose one correct answer Criterion N in the TNM classification of malignant tumors is: 1) degree of tumor differentiation 2) tumor size

3) distant hematogenous metastases

4) metastases to regional lymph nodes

Response standard: 4) metastases to regional lymph nodes

Task 10. Instructions: Choose one correct answer.

Criterion T in the TNM classification of malignant tumors is:

1) degree of tumor differentiation

2) size or depth of tumor invasion

3) distant hematogenous metastases

4) metastases to regional lymph nodes

Response standard: 2) size or depth of tumor invasion

Task 11. Instructions: Choose one correct answer.

Criterion M in the TNM classification of malignant tumors is:

1) degree of tumor differentiation

2) size or depth of tumor invasion

3) distant hematogenous and/or lymphogenous metastases

4) metastases to regional lymph nodes

Response standard: 3) distant hematogenous and (or) lymphogenous metastases

Task 12. Instructions: Choose one correct answer. Carcinoma

"in situ" in the TNM classification corresponds to:

1) Stage 0

2) Stage I

3) Stage II

4) Stage III

Response standard: 1) stage 0

Task 13. Instructions: Choose one correct answer.

The most common morphological form of thyroid cancer is: 1) papillary cancer

a) papinary cancer
 follicular carcinoma
 medullary cancer
 undifferentiated cancer
 *Response standard*: 1) papillary cancer

Task 14. Instructions: Choose one correct answer. Medullary thyroid cancer develops:
1) from A cells
2) from B cells
3) from C cells
4) from A and B cells *Response standard*: 3) from C-cells

Task 15. Instructions: Choose one correct answer. Bone marrow sarcomas include
1) osteogenic sarcoma
2) Ewing's sarcoma
3) chondrosarcoma
4) osteoblastoclastoma

Response standard: 2) Ewing's sarcoma

Task 16. Instructions: Choose one correct answer. The diffuse form of breast cancer includes:

- 1) mastitis-like cancer
- 2) Paget's cancer

3) breast cancer "in situ"

4) bilateral breast cancer

Response standard: 1) mastitis-like cancer

Task 17. Instructions: Choose one correct answer.
The most common clinical form of breast cancer is:
1) mastitis-like
2) edematous-infiltrative
3) Paget's cancer
4) nodal *Response standard*: 4) nodal

Task 18. Instructions: Choose one correct answer. Name the most common histotype of lung cancer
1) adenocarcinoma
2) squamous cell carcinoma
3) small cell carcinoma
4) large cell carcinoma *Response standard*: 2) squamous cell carcinoma

Task 19. Instructions: Choose one correct answer. What type of stomach tumor is called "linitis plastica"1) mushroom or polypoid2) ulcerative-infiltrative

3) diffuse-infiltrative4) superficial flat tumors*Response standard*: 3) diffuse-infiltrative

Task 20. Instructions: Choose one correct answer. Neoplasms of the APUD system include
1) squamous cell lung cancer
2) medullary thyroid cancer
3) mammary cancer
4) gastric adenocarcinoma *Response standard*: medullary thyroid cancer

Task 21. Instructions: Choose one correct answer.
The presence of multiple metastases in regional lymph nodes usually characterizes
1) Stage I of the disease
2) Stage II
3) III stage
4) IV stage *Response standard*: Stage III

Task 22. Instructions: Choose one correct answer.
All of the following tumors can be classified as radiosensitive, except:
1) lymphogranulomatosis
2) seminomas
3) gastric adenocarcinoma
4) small cell lung cancer *Response standard*:

Task 23. Instructions: Choose one correct answer.
Epithelial benign lung tumors include all of the following, except:
1) bronchial papillomas
2) bronchial adenomas
3) glandular polyp

4) hamartomas

Response standard: 4) hamartomas

Task 24. Instructions: Choose one correct answer.

According to the TNM classification (8th edition, 2017), peripheral non-small cell lung cancer with a diameter of 4 cm, not invading the visceral pleura, with single metastases in the bronchopulmonary lymph nodes corresponds to:

1) I stage of the disease

- 2) Stage IIA
- 3) IIB stage

4) Stage IIIA

Response standard: 4) Stage IIIA

Task 25. Instructions: Choose one correct answer.The term "Virchow's metastasis" in stomach cancer means metastasis1) into the pelvic tissue2) into the pelvic tissue

3) in the navel4) into the supraclavicular lymph node on the left*Response standard*: 4) to the supraclavicular lymph node on the left

## Open type tasks

Exercise 1.		1 .		1 1		• 1			
For	cancer	dairy		glands	reg	ional		are	
Standard an	iswer: axi	llary, subsc	apular, retr	rosternal,	sub- and su	praclavicı	ılar.		
Task 2. Most	frequent	morpholog	gical	shape	cancer thyr	oid	gland	ls is	
Sample ans	wer: papil	 llary cancer	<i>i</i> *						
Task 3. The most co	ommon his	stological v	ariant of ga	stric cano	eer is				
Sample ans	wer: aden	 ocarcinoma	a						
Task 4. Criterion	"in si	tu" By	Internation	al	classificatio	ns Tl	NM 8	applies	То
Sample ans	wer: to ca	 ncer within	the mucous	s membra	ine				
Task 5. Damage to t as Sample anst	the cervica	al, mediasti	nal and ing	uinal lym —	ph nodes in ]	Hodgkin l	ymphoi	ma is regard	led
Task 6. Defeat <i>Sample ans</i> t	basal de <i>wer: first</i>	lay gree of inva	er epider asion accord	mis ding to C	skin at lark:	melano	oma (	corresponds	ı
Task 7. Triple negat breast cance <i>Sample ans</i> t	tive, lumin er. <i>wer:</i> molec	nal A and B cular biolog	are referred	d to as				_ types of	
Task 8. The internat characterize <i>Sample ans</i>	tional clas	sification o	f neoplasms	s accordin	ng to the TN	M system	is used	to	
Task 9. The term "e <i>Sample ans</i> t	arly cance wer: first	er" means and second				_stage of t	he disea	ase.	

Task 10.

The most common histological variant of lung cancer is

Sample answer: squamous cell carcinoma

#### Task 11.

A 64-year-old man complained of dull pain in the epigastric region, retention of solid food in the esophagus at the level of the xiphoid process of the sternum, progressive weakness, weight loss, and loss of appetite. History of the disease. He has been suffering from chronic gastritis for 20 years. The disease manifested itself as heartburn, bitter belching due to an error in diet. Three months ago, for no apparent reason, a dull pain appeared in the epigastric region, occurring after eating. After a month, the pain became constant, but remained mild. I consulted a therapist. The doctor diagnosed an exacerbation of chronic gastritis and prescribed a diet and medication. There was no effect from the treatment. Two months ago, solid food began to linger in the area of the xiphoid process. The patient began to lose weight, his appetite worsened, and increasing weakness appeared. Anamnesis of life. He has been smoking since he was 15 years old. Abuses alcohol intake, often consumes marinades and home-made smoked meats. Loves salty food. Objectively. The food is satisfactory. The abdomen is soft, upon palpation there is slight pain in the epigastric region, no tumor-like formations are palpable.

#### Questions:

1. What disease can be thought of based on the available clinical data?

2. What diseases need differential diagnosis?

3. Which clinical group of dispensary observation can this patient be assigned to?

Sample answer:

Stomach cancer

Exacerbation of chronic gastritis or gastric ulcer, esophageal achalasia, gastroesophageal reflux disease (GERD), gastric polyps Ia

#### Task 12.

A 60-year-old patient complains of a feeling of heaviness and pain in the epigastric region after eating, nausea, heartburn, periodic vomiting of food, weakness, progressive weight loss, and loss of appetite. Ill for two months. Initially, pain appeared in the epigastric region to the right of the midline, dull and aching. After 2 weeks, I began to feel a full stomach after eating, nausea, and vomiting in the afternoon, which brought relief. In the vomit I found poorly digested food eaten in the morning. Later weakness set in, appetite worsened, and I began to lose weight. Weight loss in 2 months. amounted to 10 kg. For 10 years he has been suffering from chronic gastritis, which was manifested by heartburn, bitter belching and aching diffuse pain in the epigastric region after eating. These symptoms occurred rarely and were provoked by alcohol intake and poor diet. They were controlled by diet and drinking soda. He underwent endoscopic examination twice. Conclusion: chronic atrophic gastritis. Heredity is not burdened. Objectively: Nutrition is reduced. The abdomen is painless; a splashing sound is detected in the epigastric region. The liver is not enlarged. No tumor-like formations are palpable in the abdominal cavity. Description of the radiologist (gastroscopy): The stomach on an empty stomach contains a large amount of mucus and is hypotonic. The antrum is circularly narrowed, the contours are uneven, undermined, peristalsis is not visible, evacuation from the stomach is slow. Upon additional examination, distant metastases were discovered in the patient. **Ouestions** 

Based on this description, which disease seems most likely? What complication occurs in this patient? In what form of tumor growth is such an X-ray picture possible? To which organ does gastric cancer most often metastasize hematogenously? Sample answer: Stomach cancer Subcompensated stenosis. Infiltrative form. Liver

Task 13.

Patient N., 65 years old, was admitted to the clinic with complaints of weight loss, weakness, periodic epigastric pain, change in the color of stool (occasionally black). The patient underwent an X-ray examination of the stomach and fibrogastroscopy with biopsy. On the lesser curvature of the stomach, a formation measuring 6x4 cm with ridge-like edges and a sinking central part, covered with a gray coating, was found. A biopsy was taken, and histological examination of the obtained material revealed a picture of cancer. Further examination revealed no evidence of distant metastases. A gastrectomy was performed, the greater and lesser omentums were removed.

Questions:

1. Name the macroscopic form of stomach cancer.

2. Name what height in relation to the lumen of the stomach is typical for her.

3. What histological type of cancer is most often found in this form of gastric cancer?

4. Where else can you look for lymphogenous metastases of stomach cancer, what is the peculiarity of lymphogenous metastasis of this tumor?

5. Why did the color of stool change, what complications of cancer does this indicate? *Sample answer:* 

Infiltrative-ulcerative form of gastric cancer Endophytic

growth

Adenocarcinoma

Regional lymph nodes of the II and III orders (along the celiac trunk and its branches, paraesophageal, splenic hilar nodes, parapancreatic, parapyloric, etc. A feature is ortho- and retrograde lymphogenous metastasis and the possibility of the appearance of distant retrograde lymphogenous metastases

A change in the color of stool indicates the presence of episodes of bleeding from the tumor.

Task 14.

In the upper outer quadrant of the right mammary gland there is a 4x3 cm tumor, skin swelling of the "lemon peel" type, and an enlarged dense lymph node in the right axillary region. CT scan of the chest, abdominal cavity and pelvis did not reveal any other tumor formations.

Questions:

What disease can be suspected? Determine the clinical form of the disease. Determine process stage by TNM Determine clinical follow-up group *Sample answer:* Breast cancer Nodular form T2N1M0 IIA Task 15.

Patient Zh., 49 years old, consulted a doctor with complaints of loss of appetite, weakness, weight loss, frequent epigastric pain, constant nausea, and periodic vomiting of undigested food. The listed symptoms gradually increase over 2 years; fibrogastroscopic examination with biopsies was performed 3 times. Histological examination shows chronic superficial gastritis. Over the past 2 months, he has noted a progressive deterioration in his condition; he has lost up to 15 kg in weight. On examination, nutrition was reduced. The abdomen is moderately painful in the epigastric region. The liver is not enlarged. No tumor-like formations are palpable in the abdominal cavity. A dense, painless, inactive formation in the supraclavicular region on the left, 3.5 x 3 cm (lymph node), is determined. X-ray examination revealed a thickened, inextensible stomach in the form of a "skin bag". Gastroscopy revealed thickening of the folds of the gastric mucosa in all parts; a biopsy was taken, which revealed signs of cancer. *Questions:* 

1. Name the macroscopic form of stomach cancer.

2. Name what height in relation to the lumen of the stomach is typical for her.

3. What histological type (or types) of cancer is most often found in this form of gastric cancer?

4. What do the changes that are found in the left supraclavicular lymph node mean?

5. What stage of the disease and why?

Sample answer:

Total gastric cancer, diffuse-infiltrative form (linitis plastica). Endophytic growth

Tubular adenocarcinoma or signet ring cell carcinoma Data

characteristic For retrograde changes distant

lymphogenousmetastasis of stomach cancer (Virchow's metastasis occurs)

Stage IV of the disease (TNM criterion – M1).

#### Task 16

A 70-year-old woman suffered a myocardial infarction 4 years ago. During a follow-up examination with a cardiologist, she complained of a feeling of rapid satiety and a feeling of fullness in the stomach after eating small portions of food. She had no other gastric or general somatic complaints. These symptoms arose for no apparent reason 2 months ago. No dynamics were observed during this period. The doctor referred the patient for an X-ray examination and FGS.

*Questions:* 

What is the probable diagnosis?

Which clinical group of dispensary observation can this patient be assigned to?

Sample answer:

Stomach

cancer group Ia

Task 17.

A 14-year-old girl, after an injury 4 months ago, developed swelling in the upper third of her lower leg and pain mainly at night. She received physiotherapeutic treatment. The compaction slowly increases. General condition is satisfactory. Body temperature is normal. In the upper third of the right leg there is a dense, slightly painful tumor measuring  $7 \times 6$  cm, not removed from the bone, without clear contours, the skin over it is not changed.

Restricted mobility in the knee joint. Regional (inguinal) lymph nodes are not enlarged. *Questions:* 

What is the presumptive diagnosis? What cells does this tumor develop from? To which target organ is the most common hematogenous metastasis observed? *Sample answer:* The clinical picture corresponds to osteogenic sarcoma of the upper third of the right tibia. From osteoblasts to lungs

Task 18.

A 68-year-old patient underwent laparotomy due to acute intestinal obstruction. A stenotic tumor was detected in the descending colon measuring  $10.0 \times 5.3$  cm, the loops of the afferent colon were swollen and stretched with intestinal contents. The tumor spreads to the retroperitoneal fatty tissue, practically motionless; numerous enlarged, compacted regional lymph nodes and multiple nodular formations in both lobes of the liver measuring up to 1.5 - 2.0 cm are identified. *Questions:* 

State the expected diagnosis Give a characteristic of the tumor according to TNM Indicate the stage of the disease *Sample answer:* Descending colon cancer T4N3M1 (liver)

IV stage of the disease

#### Task 19.

A 14-year-old boy has been complaining for two months of pain in the right knee joint, which has become intense over the past two weeks. The child does not sleep well at night due to pain, his appetite has worsened, and he has lost weight. History: the first child in the family, born fullterm, grew and developed according to his age. All vaccinations have been completed and there is no allergy history. Family history: parents are healthy, paternal grandmother died of rectal cancer. Examination: the skin is pale, the child is malnourished. Heart sounds are muffled, heart rate 100 beats/min, blood pressure 110/70 mm Hg. Breathing in the lungs is harsh, there is no wheezing. The tongue is moist, the abdomen is soft, painless on palpation, the liver is along the edge of the costal arch, the spleen is not palpable. Locally: there is swelling in the lower third of the right thigh, the volume is increased by 4 cm compared to the healthy thigh, the venous pattern is enhanced, movements in the knee joint are limited. On the radiograph: a lytic lesion in the lower third of the femur with indistinct contours, Codman's triangle and the formation of bone substance along the vessels. General blood test: Hb 75g/l, erythrocytes 3.1.1012/l, color index 0.6; leukocytes 9.8.109/l; p/o 5%; s/y 63%; e 3%; lymphocytes 21%; monocytes 8%; ESR 54mm/hour. General urine analysis: straw-yellow color, transparent, pH 6.0; specific weight 1023, protein negative, sugar negative, leukocytes 2-3 per cell, red blood cells

0. Biochemical analysis: total protein 55g/l, albumin 50%, globulins:  $\alpha 1$  3%,  $\alpha 2$  13%,  $\beta$  12%,  $\gamma$  22%; alkaline phosphatase 280 units/l, ALT 23 units, AST 28 units, amylase 30 units/l, thymol test 4 units, total bilirubin 16 µmol/l, bound 2 µmol/l, direct reaction. Ultrasound of the abdominal organs: the liver is not enlarged, the parenchyma is homogeneous,

echogenicity is normal, liver vessels are not dilated. X-ray of the lungs - pulmonary fields without focal shadows.

*Questions:* 

Justify the diagnosis.

What cells does this tumor develop from?

Determine the stage of the disease.

Which clinical group of dispensary observation can the patient be assigned to? *Sample answer:* 

Diagnosis: osteogenic sarcoma of the distal metaphysis of the right femur, from osteoblasts

Stage IIB. Group II

Task 20.

Patient, 48 years old, an ultrasound examination revealed a tumor up to 1.5 cm in diameter in the right lobe of the thyroid gland; fine-needle puncture biopsy revealed papillary cancer in the delivered material. Upon further study, no data were obtained for regional and distant metastases.

Questions:

What form of thyroid cancer is papillary? Characterize the tumor using

the TNM system

Determine the stage of the disease

Which clinical follow-up group does the patient belong to?

Sample answer:

To differentiated T1N0M0,

Stage I

II clinical group.

Task 21.

Boy, 11 years old. Complaints of pain in the right half of the chest, swelling above the right collarbone, periodic increases in temperature up to 38°C. History: after suffering from a sore throat, pain appeared in the chest, two weeks later - swelling above the collarbone. In the blood test there are inflammatory changes. Objectively: swelling without clear boundaries above the right collarbone, painful on palpation. X-rays of the chest in two projections show a large homogeneous rounded node occupying the upper third of the right hemithorax, the pulmonary pattern is enhanced under the node. An X-ray of the chest in a direct projection shows small focal mixed destruction in the first right rib along its entire length with a linear periosteal reaction along the upper contour of the rib.

Questions:

What is your conclusion?

Defining diagnostic method? Possible treatment

options?

Sample answer:

Ewing's sarcoma of the first right rib. Prepanbiopsy with

histological examination

Treatment: multicomponent chemotherapy. If possible, radical removal of the tumor (including bone and soft tissue component).

Task 22.

Patient K., 67. complains of dull pain in the lower abdomen, periodically accompanied by bloating, rumbling in the abdomen, unstable stools, alternating constipation and diarrhea, an admixture of mucus and blood in the stool. These complaints are noted for 6 months. Recently I began to feel weakness, malaise, increased fatigue, and slight weight loss. Temperature in the evenings -37.2 - 37.5 °C.

Questions:

What disease can be suspected?

In which part of the colon can the tumor be localized? What clinical

forms of colon cancer do you know?

Sample answer:

A colon tumor may be suspected.

In the sigmoid colon or rectosigmoid colon.

Forms cancer thick intestines: intoxication-anemic, tumor,enterocolitic, pseudo-inflammatory, obstructive.

Task 23.

The patient, 49 years old, was treated in the therapeutic department for iron deficiency anemia and was discharged with some improvement. For the last 2 months I have been worried about headaches, severe weakness, lack of appetite, decreased performance, I lost weight up to

10 kg, periodically notices black stool. Objectively: the skin is pale, the abdomen is soft, painless on superficial palpation; on deep palpation, a tumor-like formation measuring 6x4 cm is detected in the right iliac region, somewhat painful, lumpy, without clear contours, moderately displaced. There are no symptoms of peritoneal irritation.

Questions:

Make a preliminary diagnosis?

What is the clinical form of the disease in the patient?

Which clinical group of dispensary observation can this patient be assigned to?

Sample answer:

Cecal cancer Toxic-

anemic group Ia

Task 24.

Patient K., 65 years old, consulted a doctor with complaints of aching pain in the left hypochondrium and a feeling of heaviness. Recently he has noticed a decrease in appetite, over the past month he has lost about 5 kg in weight, constipation has appeared, and stool retention occurs for 2-3 days. Periodically there is bloating. The patient has increased nutrition, the skin and visible mucous membranes are of normal color. Pulse 78 beats. per minute Blood pressure 140/80 mm Hg. Art. Vesicular breathing is observed over the pulmonary fields. The tongue is coated with a whitish coating. The abdomen is soft, moderately painful in the left hypochondrium, and on deep palpation a slow-moving tumor-like formation is not clearly visible. There are no symptoms of peritoneal irritation. During a digital examination of the rectum, the sphincter is toned, the feces on the glove are of a normal color, pathological formations are not identified. Diuresis is sufficient.

Questions:

Make a preliminary diagnosis?

What is the clinical form of the disease in the patient?

Which clinical group of dispensary observation can this patient be assigned to?

Sample answer:

Cancer of the splenic angle of the colon.

Obstructive

Ia group

Task 25.

Patient K., 42 years old, complains of the release of blood and mucus at the beginning of defecation, periodically emerging constipation changing diarrhea. At examination per rectum at a distance of 7 - 8 cm from the anus reveals the lower edge of a tumor-like formation of dense consistency, lumpy, examination is moderately painful, tumor-like formation, occupies up to 2/3 of the semicircle of the rectum. Questions:

Make a preliminary diagnosis.

During examination, the patient was found to have enlarged paratumorous lymph nodes in the mesorectal tissue. What stage of the patient's disease?

Which clinical group can this patient be classified into?

Sample answer:

Rectal cancer stage

III

II clinical group

Task 26.

The patient, 52 years old, has lost 7 kg over the past two months. Two weeks ago, skin itching, yellowness of the skin and sclera, and dark urine appeared. The pain syndrome is not expressed. Objectively: yellowish skin with an earthy tint. A dense, smooth, spherical, painless formation is palpated in the right hypochondrium. The liver protrudes 3 cm from under the edge of the costal arch, its edge is smooth, its surface is even.

Questions:

What disease can be suspected? What complication does the patient have? Which clinical group can this patient be classified into? *Sample answer:* Pancreatic head cancer Obstructive jaundice syndrome Ia group

Task 27.

Patient Ya., 59 years old, has had jaundice and decreased appetite for 2 months, and has lost 15 kg. The examination revealed an enlarged liver, a sedentary formation was palpated in the epigastric region on the right above the navel. Over the past 2 weeks, he has noted vomiting mixed with blood, nosebleeds, and the appearance of hemorrhages on the torso.

Questions:

What diagnosis can be made in this case? How to

explain the increased bleeding?

Which clinical group can this patient be classified into?

Sample answer:

Pancreatic head cancer

Prolonged jaundice leads to impaired liver function, including impaired formation of proteins involved in the process of hemostasis, resulting in hypocoagulation and hemorrhagic syndrome Ia group

Task 28.

Patient G., 60 years old, was hospitalized at the clinic for examination due to pain in the right hypochondrium and signs of jaundice. History of viral hepatitis B,

complicated by cirrhosis of the liver. A physical examination revealed an enlarged, painful and lumpy liver protruding from under the costal arch. Abelev-Tatarinov's reaction is sharply positive. Ultrasound of the abdominal cavity revealed a nodular formation in the right lobe of the liver measuring 15x12 cm, involving the IV segment, 2 nodes in the left lobe of the liver measuring 3x2 and 2x2 cm, ascites up to 1L. The lymph nodes of the porta hepatis and hepatoduodenal ligament are not enlarged. Further examination did not reveal any other lesions. A liver biopsy was performed. Histological examination of the biopsy specimen reveals a tissue area consisting of small parenchymal-like cells with very large nuclei with an increased nuclearcytoplasmic ratio (8:1). There are nuclei of irregular scalloped shape with a delicate (young) structure, containing 3-5 large nucleoli. The cells do not form intercellular contacts, lie separately, and do not form tissue structures characteristic of the liver. These cells have mitotic figures. In some areas, these cells perforate the walls of microvessels, grow into the surrounding tissue elements, destroying them, grow into the liver capsule and infiltrate the tissues of organs adjacent to the liver.

Questions:

What is your diagnosis?

Name the manifestations of tissue and cellular atypia that occur in the histological specimen. What type of protein is determined by the Abelev-Tatarinov reaction?

Is there a causal relationship between viral hepatitis B and cirrhosis with the described disease? Determine the probable stage of the disease.

#### Sample answer:

Primary liver cancer

Small nuclei with very large nucleus, with few nucleoli, absence of stromal structures, mitotic figures, signs of infiltrative growth

Alpha fetoprotein

Viral hepatitis And cirrhosis liver are optional precancerousdiseases for primary liver cancer

Stage IIIA (T3N0M0)

Task 29.

A 68-year-old smoker developed a dense, painless formation on the mucous membrane of the red border of the lower lip, covered with a crust measuring 1.0 cm. A dense lymph node up to 2.0 cm in size was palpated on the left side of the neck.

Questions:

What is your preliminary diagnosis?

A histological examination of biopsy material from a tumor and a lymph node in the neck revealed the presence of keratinizing squamous cell carcinoma. No lesions of other regional lymph nodes, as well as distant metastases, were detected. Name the stage of the process.

Which clinical group can this patient be classified into?

Sample answer:

Lower lip cancer

Based on the size of the tumor up to 2 cm and the presence of a single metastatic lymph node, the patient has stage III disease (T1N1M0)

Group II

Task 30.

Patient N., 53 years old, welder. Smokes for 30 years. Complains of choking, pain when swallowing, sensation of a foreign body in the throat, hoarseness. Ill for 3 months. On examination, the cervical lymph nodes are not enlarged. A fibrolaryngoscopy was performed: the mucous membrane of the posterior pharyngeal wall is infiltrated by a tumor, there is ulceration, it bleeds on instrumental palpation, the vocal folds are fixed. A biopsy was performed. Histological conclusion: squamous cell carcinoma with keratinization.

Questions:

What is the preliminary diagnosis?

An ultrasound scan of the neck revealed an enlargement of 1 paratracheal lymph node on the right. A puncture biopsy revealed the answer: metastasis of squamous cell carcinoma. No distant metastases were detected. Determine the stage of the disease.

Which clinical group can this patient be classified into?

Sample answer:

Laryngeal cancer.

It is necessary to additionally perform an ultrasound of the neck to determine possible changes in the regional lymph nodes, an X-ray computed tomography of the neck and chest organs to clarify the extent of the pathological process and the presence of distant metastases, and an ultrasound of the abdominal cavity to exclude metastases in the liver.

T3N1M0, stage III

II group

Task 31.

Task 1.

A 48-year-old patient came to the appointment with a complaint of bloody discharge from the nipple of the right breast. I noticed this 3 weeks ago. Upon examination, a nipple ulcer measuring 0.5x0.7 cm with bloody discharge was revealed. Large mammary glands. The axillary lymph nodes on both sides are not enlarged by palpation. A cytological examination of an impression smear from an ulcer of the right breast revealed cancer cells. The patient wishes to preserve her breasts.

Questions:

What is the probable diagnosis?

When examining the patient, no data were obtained for regional and distant metastases. Name the expected stage of the disease.

Name the clinical group. *Sample answer:* 

Paget's cancer T1N0M0, stage I II

group

Task 32.

A 37-year-old patient noticed a lump in the left breast 2 weeks ago. Upon examination, a tumor was revealed in the upper outer quadrant of the left mammary gland, not fused with the surrounding tissues, measuring 1 cm. 1 lymph node in the left axillary region was enlarged. Cytological examination of punctate from the mass and lymph node revealed ductal adenocacinoma cells.

Questions:

Your diagnosis

The examination revealed no evidence of distant metastases. Determine the stage of the disease; Determine clinical group;

Sample answer: Left breast cancer T1N+M0, IIA II

Task 33.

A 38-year-old patient, during a medical examination, a mammography was performed, the results of which revealed that at the border of the inner quadrants of the left mammary gland there was a rounded shadow 1.3 cm in diameter with a rim of clearing. The patient makes no complaints. On examination: the mammary glands are symmetrical, the nipples are not retracted. On palpation at the border of the inner quadrants of the left mammary gland, a tumor is determined to be about 1.5 cm in diameter, soft-elastic consistency, regular round shape, displaceable, painless. Regional lymph nodes are not palpable.

*Questions:* What is your diagnosis? Name the clinical group for this patient *Sample answer:* Solitary cyst of the left breast. Ib group

Task 34.

A 48-year-old patient complained of swelling and slight tenderness of the left breast. The complaints arose three weeks ago, the symptoms gradually increased. Body temperature 36.6°C. On examination: the left mammary gland is larger than the right, the skin of the gland is diffusely swollen and moderately hyperemic. There is a slight increase in local temperature. On palpation there is moderate pain, diffuse induration due to edema. Nodular formations are not identified. In the left axillary region, enlarged axillary lymph nodes are detected, of dense consistency and painless.

Questions:

Formulate a diagnosis.

What is the clinical form of the disease in the patient?

The examination revealed no evidence of distant metastases. Determine the stage of the disease; Determine clinical group;

Sample answer:

Left breast cancer. Edematous-

infiltrative form T4N1M0, stage

III

II

Task 35.

A 55-year-old woman accidentally discovered a tumor in her right breast. Menopause 5 years. On examination: the mammary glands are large, the skin is not changed, the nipples are unchanged, there is no discharge from them. Upon palpation, a dense, painless, inactive formation measuring 3.0x2.2 cm is determined in the upper outer quadrant of the right mammary gland.

*Questions:* 

What is your preliminary diagnosis?

How can a tumor be characterized using the TNM system at this stage?

Determine clinical group;

Sample answer:

Breast cancer T2NxMx Ia group

Task 36.

A 50-year-old man was admitted to the therapeutic department of the hospital with complaints of weakness, cough with a small amount of sputum, and fever up to 37.5°C. History of frequent colds. Smokes. An X-ray examination of the lungs revealed darkening in the hilar zone of the right lung and a decrease in the airiness of the middle lobe.

Questions:

What disease should you think about?

What radiological sign is the main one for your diagnostic version?

Determine clinical group;

Sample answer:

Central lung cancer.

Decreased airiness of the middle lobe of the right lung

Group Ia

Task 37.

You work as a doctor in a therapeutic hospital. A patient has been admitted to you with a clinical picture of exacerbation of chronic bronchitis, with complaints of low-grade fever and a persistent dry cough with a small amount of sputum. X-ray of the lungs in 2 projections did not reveal any evidence of a malignant process. However, despite the treatment, the patient's condition does not improve, the temperature persists and blood streaks have appeared in the sputum.

Questions:

What disease can be suspected in this case?

Indicate the main "alarming" symptoms that confirm your version of the diagnosis.

Determine clinical group;

Sample answer:

Lung cancer

A history of chronic bronchial disease, persistent dry cough, hemoptysis

Ia group

Task 38.

A 57-year-old woman consulted a neurologist with complaints of pain in her right shoulder. Considers himself sick for a month. The onset of the disease is associated with severe hypothermia. The doctor diagnosed plexitis and prescribed physiotherapeutic treatment. The patient's condition worsened and a fever appeared. A few days later, the doctor diagnosed the presence of Horner's triad. Despite this, he continued treatment.

Questions:

What disease can be assumed in this case? What includes and

What does Horner's syndrome indicate in this situation?

What is the expected TNM score for this patient?

Sample answer:

Cancer of the apex of the right lung (Penkosta cancer) Ptosis, miosis and enophthalmos on the affected side

Local spread of the tumor to the brachial plexus and parasympathetic nerve trunk. T4

Task 39.

The patient is 56 years old, worked for a long time in glass production, and is a smoker. She is seen by a therapist for chronic bronchitis; only fluorography is performed annually. After another visit to the doctor two months later, streaks of blood appeared in the sputum, he was treated on his own. His condition worsened, he developed a fever, weakness, and lost a lot of weight. When visiting a doctor, an X-ray examination of the lungs was performed and atelectasis of the lower lobe of the right lung was detected.

Questions:

What disease can be suspected in this case?

Indicate the main "alarming" symptoms that confirm your version of the diagnosis.

Determine clinical group;

Sample answer:

Lung cancer

A history of chronic bronchial disease, streaks of blood in the sputum, atelectasis of the lower lobe of the right lung.

Ia group

Task 40.

The patient is 61 years old. 3 years ago, a lobectomy was performed for central lung cancer T1N0M0. Histological conclusion - small cell carcinoma. He refused further treatment. Currently complaining of headaches.

Questions:

What clinical group did the patient have for 3 years after surgery? What

pathology can be assumed in this case?

RCT of the chest cavity, mediastinum, and brain revealed a single metastasis in the temporoparietal region on the left, measuring 3x2 cm. Which clinical follow-up group should the patient be transferred to?

Sample answer:

III clinical group

In this observation, brain metastases cannot be excluded; clinical group

II

Task 41.

A 68-year-old patient consulted a dermatologist with complaints of a tumor on the skin of the corner of the eye. This formation exists for about 6 years and slowly increases in size. She treated herself with ointments, but the tumor increased in size, then ulceration appeared. This was the reason for going to the doctor. Upon examination: there is a nodular formation on the skin measuring 0.8x0.5x0.3 cm, with a depression in the center, and a whitish rim around it. Regional lymph nodes are not enlarged.

Questions:

What disease are we talking about?

The examination confirmed the malignant nature of the tumor. Determine the stage of the disease Determine the clinical group

Reference answer: Basal cell

carcinoma.

Stage I II clinical group

Task 42.

A 55-year-old patient was treated for a long time by a surgeon for a trophic ulcer of the leg. There was no effect from conservative treatment; over the past 6 months the ulcers have increased in number. Upon examination during the next visit to the doctor: there is a trophic ulcer on the skin of the anterior surface of the leg, in the lower corner of which, in an area measuring 5x4x3 cm, the tissues are compacted, infiltrated, rise above the rest of the surface of the ulcer, there are no granulations, there is a fibrin film on the surface. Regional lymph nodes are not palpable. The doctor recommended continuing conservative treatment.

#### Questions:

What disease can be suspected in this case? Define Clinical

Group

Analyze the doctor's tactics.

Sample answer:

Considering the history, clinical picture, and the lack of effect of conservative treatment for several years, it is necessary to suspect squamous cell skin cancer

Ia group

IN actions doctor absent oncaucy, What Maybe bring Toprogression of the disease and generalization of the tumor process

Task 43.

A 14-year-old patient consulted a dermatologist with complaints of a pigmented tumor on the skin of her left thigh. From the anamnesis: this formation has existed since birth, increasing in parallel with the growth of the patient. During the period when menstruation began, I noticed a rapid increase in it, and three months before going to the doctor, I noticed a change in color and slight vulnerability. On examination: there is a pigmented tumor on the skin measuring  $3.0 \times 2.0 \times 1.0 \text{ cm}$ , with a lumpy surface, dark brown in color. The doctor referred the patient to an oncologist.

Questions:

What disease can you think about? Specify risk

factors

Specify the symptoms of nevus activation.

Sample answer:

Melanoma of the skin.

Risk factors include: activation of congenital formation during puberty.

Symptoms of activation are tumor growth, change in its color.

Task 44.

A 23-year-old patient consulted a surgeon with complaints of a tumor in the left axillary region. On examination: in the axillary area there is a dense conglomerate, the skin over it is hyperemic and thinned. The doctor, based on these data, diagnosed lymphadenitis and performed an autopsy. In this case, no pus was obtained, and loose, slightly bleeding black masses were detected at the bottom of the wound. Despite this,

The "abscess" was drained and anti-inflammatory treatment was prescribed. *Ouestions:* 

What disease can be discussed in this observation? Name the main

mistakes of a doctor-surgeon.

Sample answer:

Melanoma, metastatic form.

In this situation, the doctor did not collect anamnesis, did not fully examine the patient, and did not perform a puncture biopsy. Even in the absence of pus and the presence of structureless black masses, melanoma metastasis was not suspected. It was necessary to refer the patient to an oncologist.

Task 45.

A 14-year-old boy has many pigmented formations on his skin. According to the mother, they are both congenital and appeared over the past year. Three formations on the anterior abdominal wall quickly increased in size and darkened. Upon examination by a dermatologist, they were found to be in an area of constant irritation from the waist belt. The doctor recommended observation.

Questions:

What factors are associated with the increase in the number of pigment formations?

What tactics would you recommend?

Sample answer:

With puberty

Taking into account the period of puberty, the activation of three tumors and their constant traumatization, it is necessary to remove three pigmented tumors in an oncological institution with morphological verification. For other pigmented formations, dynamic monitoring by an oncologist should be recommended.

Task 46.

A 15-year-old girl was diagnosed with a tumor in the left neck area. The doctor did not identify painful symptoms or any specific disease in the patient, but drew attention to the presence of an enlarged cervical lymph node posterior to the sternocleidomastoid muscle measuring 3x2 cm, elastic, moderately mobile, fixed to the skin. A puncture biopsy revealed Reed-Stenberger cells. Questions:

Define the disease.

What are the main histological variants of this disease?

An examination did not reveal enlargement of other groups of lymph nodes, liver and spleen. Determine the stage of the disease.

Sample answer:

Lymphogranulomatosis

Lymphoid predominance, nodular (nodular) sclerosis, mixed cell, lymphoid depletion

stage

Task 47.

IA

A 62-year-old patient was admitted with complaints of fever, night sweats, weight loss, and itching. Ill for 3 years. On examination: enlarged, mobile, not fused to the skin, dense elastic lymph nodes are palpated, merging into conglomerates in the cervical-supraclavicular region on the right. Lungs and heart without features. Liver at the costal arch. The spleen protrudes 3 cm from under the costal arch. Blood test: Hb 100, leukemia. 3.2, Eoz. 11%, p/o 4%, p/o 62%, lymph 14%, mon. 6, thrombus. 20.0, ESR 20.

Questions:

1) What is the most likely cause of lymphoproliferative syndrome based on blood tests?

2) What is expected in a lymph node biopsy?

3) Determine the expected stage of the disease.?

Sample answer:

Example answers to situational task No. 2

- 1. Lymphogranulomatosis.
- 2. Berezovsky-Sternberg cells

3. IIIB

#### Task 48.

A 48-year-old patient underwent distal subtotal gastrectomy for gastric outlet cancer without distant metastases. Conclusion of histological examination: In the stomach wall there is a poorly differentiated G3 adenocarcinoma with areas of mucinous (10%) component, with ulceration, inflammation, foci of necrosis, infiltrates the mucous layer, submucosal layer, muscular layer, subserose, with invasion of the perineural spaces, the presence of tumor emboli in the blood vessels . No signs of invasion into the lymphatic vessels were found. No tumor elements were found along the resection lines. Outside the tumor in the gastric mucosa there is chronic atrophic gastritis with intestinal metaplasia, with high-grade intraepithelial neoplasia. In 16 lymph nodes isolated from regional fatty tissue, sinus histiocytosis, lipomatosis, and tumor elements were not detected. No tumor growth was detected in the omentum.

Questions:

Determine the stage of the disease using TNM Which clinical group should be assigned to the patient? Sample answer: pT3N0M0, stage IIA II clinical group

Task 49.

A 64-year-old patient underwent gastrectomy for gastric cancer without distant metastases. Conclusion of histological examination: In the wall of the stomach, moderately differentiated G2 adenocarcinoma with areas of mucinous (10%) component, with ulceration, inflammation, foci of necrosis, infiltrates the mucous layer, submucosal layer and muscle layer. No signs of invasion into the lymphatic vessels were found. No tumor elements were found along the resection lines. Outside the tumor in the gastric mucosa there is chronic atrophic gastritis with intestinal metaplasia. No tumor elements were found in 16 regional lymph nodes. No tumor growth was detected in the omentum.

Questions:

Determine the stage of the disease using TNM Which clinical group should be assigned to the patient? *Sample answer:* pT2N0M0, stage IB III clinical group

Task 50.

A 72-year-old patient underwent a gastrectomy operation due to cancer of the body of the stomach, multiple metastases in both lobes of the liver, against the background of profuse gastrointestinal bleeding. Conclusion of histological examination: In the wall of the stomach there is moderately differentiated G2 adenocarcinoma, with ulceration, inflammation, foci of necrosis, with infiltration to the serous layer. There are signs of invasion into lymphatic and blood vessels. No tumor elements were found along the resection lines. Outside the tumor in the gastric mucosa there is chronic atrophic gastritis with intestinal metaplasia. In 6 out of 16 regional lymph nodes

cancer metastases were detected. No tumor growth was detected in the omentum. In the future, palliative chemotherapy is planned. *Questions:* Determine the stage of the disease using TNM What kind of surgical interventions does the operation performed include? Which clinical group should be assigned to the patient? *Sample answer:* T4N3M1, stage IV II clinical group

Task 51.

A 48-year-old patient underwent right hemicolectomy for cecal cancer without distant metastases. Conclusion of the histological study: In the wall of the cecum, there is a poorly differentiated G3 adenocarcinoma with areas of mucinous (10%) component, with ulceration, inflammation, foci of necrosis, infiltrating the intestinal wall to subserose, with invasion of the perineural spaces, the presence of tumor emboli in the blood vessels. No signs of invasion into the lymphatic vessels were found. No tumor elements were found along the resection lines. In 12 lymph nodes isolated from regional fatty tissue, sinus histiocytosis, lipomatosis, and tumor elements were not detected. No tumor growth was detected in the omentum. Consulted by a chemotherapist. Adjuvant chemotherapy is not indicated.

Questions:

Determine the stage of the disease using TNM

Which clinical group should be assigned to the patient? Sample answer: pT3N0M0, stage IIA III clinical group

Task 52.

A 14-year-old patient, after an injury to the anterior surface of the right leg, notes a painful swelling at the site of the bruise. Due to the growth of the tumor, after 2 months he turned to the surgeon at the clinic, who prescribed compresses and UHF. The tumor continued to grow. He was sent to a children's surgical hospital, where the festering hematoma was opened three times, but no pus was obtained. Objectively: thickening of the middle third of the left leg. The skin over it is bluish-purple in color with an ulceration of  $4 \times 2$  cm. In the soft tissues, a compaction measuring  $8 \times 6$  cm is detected, without clear boundaries. The inguinal lymph nodes are not enlarged. The patient has low nutrition, the skin is pale in color. *Questions:* 

1. Presumable diagnosis.

2. What mistakes were made at the previous stages of examination and treatment of the patient?

3. What diagnostic methods should be used to clarify the diagnosis and extent of spread of the tumor process?

4. Determine possible treatment tactics.

Sample answer:

Soft tissue sarcoma of the right leg

The clinic surgeon prescribed physical treatment, despite the fact that there was evidence of a tumor of the lower leg and its progressive increase, the hospital surgeons performed surgery 3 times (erroneously), but a biopsy was not performed.

X-ray computed tomography of the right lower limb and chest organs, ultrasound of the abdominal cavity, cytological examination of impression smears from the surface of the ulceration, tumor biopsy with histological examination.

The patient, taking into account the location and size of the tumor, is indicated for combined treatment, depending on the postoperative histological report with the inclusion of radiation therapy

Task 53.

A patient came to the clinic with complaints of weakness, weight loss, and pain in the epigastric region. Considers himself sick for about 10 years. Recently the condition has worsened. The doctor ordered an endoscopic examination, which revealed a callous ulcer of the lesser curvature of the stomach. No biopsy was taken. After a course of conservative therapy for 6 weeks, the condition worsened, ascites appeared, with repeated FGDS, the ulcer along the lesser curvature increased in size, a biopsy revealed signet ring cell carcinoma, and an ultrasound of the liver showed signs of multiple focal liver lesions.

Questions:

What disease should the doctor think about when presenting the patient? What

was the mistake during the first gastroscopy?

What stage of the disease?

What documents must the doctor fill out?

Sample answer:

It was necessary to suspect stomach cancer.

The endoscopist did not perform a biopsy and made the diagnosis based on visual examination. TxNxM1, stage IV

Form 090/U "Notification of a patient with a diagnosis of cancer or other malignant neoplasm for the first time in life", Form 027-2/U "Protocol in case of detection of an advanced form of malignant neoplasm in a patient"

Task 54.

During the next fluorography, a round tumor-like formation in the right lung measuring 2.0 x 1.5 cm was discovered in a cement plant worker. The local doctor recommended observation and a control X-ray examination after a year.

Questions:

Is the doctor right?

What disease should he suspect?

Which clinical group should this patient be classified into? Suggest an

examination plan

Which kinds biopsy Can use For morphological confirming the diagnosis?

Sample answer:

No.

Peripheral lung cancer IA

X-ray of the lungs in 2 projections, X-ray CT of the chest, ultrasound or X-ray of the abdominal cavity, bronchoscopy, tumor biopsy.

CT-guided puncture biopsy, transbronchial biopsy during endoscopy, videothoracoscopy with biopsy, diagnostic thoracotomy.

Task 55.

Sick 53 years. IN flow six months appeared complaints on

constipation; notesperiodic abdominal pain, bloating. I have never seen a doctor

before.

Questions:

What disease should you think about?

Which clinical group should this patient be classified into? What is the

sequence of diagnostic measures.

Sample answer:

Cancer of the left half of the colon cannot be ruled out. IA

Physical examination, digital rectal examination, sigmoidoscopy, irrigoscopy, colonoscopy with morphological examination of biopsy material, ultrasound of the abdominal cavity and pelvis

Task 56.

During a routine examination, a digital examination of the rectum in a 56-year-old man revealed a small tumor on a wide stalk, at a distance of 4 cm from the sphincter. During rectoscopy, a diagnosis was made of type III rectal polyp. Its endoscopic removal was performed.

Questions:

Which clinical group should this patient be classified into? Was the correct tactic used for this patient?

Is the scope of the operation sufficient?

Sample answer:

IB

It was necessary to verify the disease during rectoscopy, and then determine treatment tactics. If the diagnosis of polyp is confirmed, the volume is sufficient. In the case of rectal cancer, the extent of treatment will depend on the histological conclusion; preference should be given to organ-preserving methods

Task 57.

A 34-year-old woman consulted an endocrinologist with complaints of an enlarged thyroid gland. An ultrasound revealed a node in the right lobe, completely occupying it. The doctor recommended hormonal treatment and observation.

Questions:

Analyze the doctor's tactics.

What disease would you suspect?

Which clinical group should this patient be classified into? What research

method will be decisive for making a diagnosis? Is the treatment chosen

correctly?

Sample answer:

Before prescribing treatment, it was necessary to obtain a conclusion that the patient did not have thyroid cancer.

Thyroid cancer IB

Puncture biopsy of a nodular formation in the thyroid gland.

Any nodular formation in the thyroid gland is subject to surgical treatment.

Task 58.

You are a clinician. Your patient has been diagnosed with cancer. Any localization. *Questions:* 

What medical documents do you need to submit?

At what point should rehabilitation measures begin?

Sample answer:

Variant of correct answers:

Form 090/U "Notification of a patient diagnosed with cancer or other malignant neoplasm for the first time in his life"

From the moment of diagnosis

#### Task 59.

U sick V result diagnosed primary examinations locallyadvanced pancreatic cancer with liver metastases. *Questions:* What stage of the disease? Which clinical group should the patient be transferred to? What documents must the doctor fill out? What treatment is indicated for the patient? Sample answer: T4NxM1, stage IV IV clinical group Form 090/U "Notification of a patient with a diagnosis of cancer or other malignant disease for the first time in his life"neoplasms", Shape 027-2/U "Protocol in case of detection

of an advanced form of malignant neoplasm in a patient" Symptomatic treatment.

Task 60.

During a medical examination of a 58-year-old patient, ultrasound revealed a focal formation measuring 3x3 cm in the left lobe of the liver. The patient's general condition is quite satisfactory. Questions:

List the possible diseases hidden under the syndrome of focal liver formation.

Which clinical group should the patient be assigned to?

Sample answer:

Metastasis from another organ affected by the tumor, primary benign or malignant liver tumor, parasitic cyst.

Ia

Task 61.

A 69-year-old patient complained of an ulcerated skin lesion in the forehead area. According to the patient, the formation has existed for several years. Notes the slow growth of education. 4 months ago a small ulcer appeared in the area of the formation, which is gradually increasing. On examination: in the frontal region there is a superficial formation 1.5x2.5 cm protruding above the surface of the skin with ulceration in the center. The cervical lymph nodes are not enlarged.

Questions:

Formulate and justify the presumptive diagnosis. Determine

the possible stage of the disease

Define Clinical Group

Sample answer:

Taking into account the long history of the disease, the slow growth of the tumor, the characteristic macroscopic picture - the presence of a formation in the form of a papule with ulceration (nodular-ulcerative form), the absence of metastatic lesions of the lymph nodes, we can assume basal cell cancer of the skin of the forehead. Stage I Task 62.

A 71-year-old patient complained of skin formation in the area of the right shoulder and pain when raising the right upper limb. From the anamnesis it is known that education in this area has existed for 3 years. Appeared in the area of a burn received 10 years ago. In the last year, I have noticed a thickening of the formation and an increase in its size.

On examination: on the skin of the right shoulder there is a 4x3 cm formation, slightly protruding above the surface of the skin, with the presence of hyperkeratosis along its periphery. There was a significant increase in the axillary lymph nodes on the right, which merged into a conglomerate up to 5 cm in diameter. On palpation they have a dense elastic consistency. Painless.

Questions:

Formulate and justify the presumptive diagnosis. Determine the

presumptive stage of the disease according to TNM Determine the

clinical group

Sample answer:

The patient probably has squamous cell carcinoma of the skin of the right shoulder with metastases to the axillary lymph nodes. This is indicated by anamnesis data indicating the slow growth of the tumor, its appearance against the background of a skin post-burn scar, the presence of enlarged regional lymph nodes similar to metastatic ones

T2N2Mx

Ia

Task 63.

Examination of a 37-year-old patient revealed enlargement of the inguinal lymph nodes on the left. Upon examination, on the skin of the anterior surface of the left leg there is a pigmented formation of irregular shape up to 12 mm, with an uneven surface and heterogeneous color. From the anamnesis: The patient notes the presence of this formation since childhood, but over the past six months he has noted an increase in size and a change in shape.

Questions:

Formulate and justify the presumptive diagnosis. Name the

probable stage of the disease.

Define Clinical Group

Sample answer:

Considering the presence of a pigmented formation on the skin of the anterior surface of the left leg, its increase in size and change in shape over the past 6 months, it can be assumed that the patient has melanoma of the skin of the left leg with possible metastases to the inguinal lymph nodes on the left.

The patient presumably has stage III disease, which corresponds to melanomas of any size with multiple regional metastases. For a more accurate diagnosis, further examination is necessary. Ia

Task 64.

A 38-year-old patient had a pigmented formation on his right forearm removed in a cosmetology clinic 4 months ago. Currently, a compaction with black pigmentation measuring 4 mm has appeared in the area of the postoperative scar. Also in the axillary region on the right, axillary lymph nodes are identified, enlarged to 1.5 cm, with a dense elastic consistency.

Questions:

Formulate and justify the presumptive diagnosis.

Ia

What mistakes were made during the treatment stages?

Sample answer:

Based on the appearance of a recurrence of a pigmented formation a short time after its removal, as well as the appearance of dense enlarged regional lymph nodes, one can think that the patient has a malignant pigmented formation - melanoma of the skin of the right forearm, a relapse after non-radical surgery and metastases to the axillary lymph nodes on the right.

The main mistake is removing pigmented skin formations outside a medical facility. This led to 1) insufficient radicalism of the intervention, since in beauty salons the removal of formations on the skin does not imply their wide excision along with the subcutaneous tissue to the aponeurosis, since this inevitably results in rough, cosmetically noticeable scars 2) lack of timely diagnosis of a malignant disease due to failure to perform morphological research

Task 65.

A 35-year-old patient came to the clinic with complaints of changes in the color, shape and size of a pigmented neoplasm on the skin of the anterior abdominal wall. Upon examination, a neoplasm was revealed, 2.5 cm in size, dark brown, without vellus hair, with a rim of hyperemia around the circumference. Regional lymph nodes are not palpable. Questions:

What is your diagnosis?

Name the clinical group

What diseases need differential diagnosis?

Sample answer:

Skin melanoma

Ia

With pigmented nevi of the skin, as well as with other malignant skin formations

Task 66

A 59-year-old man has had jaundice and decreased appetite for 2 months and has lost 15 kg. The examination revealed an enlarged liver, a sedentary formation was palpated in the epigastric region on the right above the navel. Over the past 2 weeks, he has been experiencing vomiting mixed with blood, nosebleeds, and hemorrhages on the torso.

Questions:

State the suspected diagnosis. Name the

clinical group

How to explain the increased bleeding?

Sample answer:

Most likely the patient has a tumor of the head of the pancreas with compression of the common bile duct and the development of obstructive jaundice syndrome, as well as the possible development of duodenal stenosis

Ia

Prolonged obstructive jaundice leads to impaired liver function and, as a result, to a deficiency of blood coagulation factors, which are predominantly produced in the liver. As a result, hypocoagulation develops, which is the main cause of hemorrhagic syndrome.

Task 67

Patient A. 56 years old. Complaints of weight loss, nausea, rarely vomiting, pain in the epigastric region, and jaundice of the skin has been noted over the past week. I lost 7 kg in 3 months. Objectively: peripheral lymph nodes are not enlarged, with percussion of the chest there is a clear pulmonary sound, auscultation: breathing is carried out in all parts. The abdomen is soft, accessible to palpation, and there is pain in the epigastric region. Endoscopy: the mucous membrane of the lower third of the stomach is infiltrated, bleeds during instrumental "palpation", infiltration extends to the 12th bulb. Histological conclusion: poorly differentiated adenocarcinoma. Ultrasound of the abdominal organs: in the liver in the area of the 7th segment there is a round formation, without clear boundaries, in the head of the pancreas a space-occupying formation of 4.5x3 cm is detected, the pancreas has a heterogeneous structure, is swollen, the retroperitoneal lymph nodes are not enlarged. CT scan of the abdominal organs: there is a space-occupying formation measuring 4x4 cm in the head of the pancreas, with signs of invasion of the stomach wall. Marker CA 19-9 753 U/ml.

#### Questions:

State the suspected diagnosis.

Name the expected stage of the disease according to TNM

Name the clinical group

Sample answer:

The patient has advanced cancer of the head of the pancreas with metastatic damage to the liver. T3N0M1

IV clinical group, if symptomatic treatment is effective, transfer to clinical group II for palliative chemotherapy is possible

#### Task 68.

Patient S., 60 years old. Complaints of dull pain in the upper abdomen, loss of appetite, yellowness of the skin. Over the past 4 months I have lost 5 kg. There is a history of hepatitis B. Objectively: the skin is yellow, the peripheral lymph nodes are not enlarged, the abdomen is soft and enlarged, the edge of the liver protrudes 4 cm from under the costal arch. According to an ultrasound examination of the abdominal cavity, at the border of the 4th and 5th segments of the liver, a space-occupying formation measuring 4x5 cm in diameter with unclear boundaries is determined, at the porta hepatis there are lymph nodes enlarged to 2.5 - 3.0 cm, and ascites. When examining the patient, no evidence was obtained for the presence of other tumors. The AFP marker level is 700 ng/ml.

Questions:

Formulate a possible diagnosis

Determine the presumptive histotype of the tumor

Determine the stage of the disease according to TNM

Determine the clinical group

Sample answer:

Primary liver cancer

Hepatocellular cancer T2N1M0

IV clinical group; if symptomatic treatment is effective, transfer to clinical group II for targeted therapy or transarterial chemoembolization is possible.

Task 69.

A 63-year-old patient complained of jaundice, pain in the epigastric region, weakness, weight loss, lack of appetite, and itchy skin. For 12 years he has suffered from cholelithiasis, chronic cholecystitis with periodic exacerbations,

manifested by attacks of pain in the right hypochondrium. She refused the proposed operation. In the last 6 months, pain has appeared in the epigastric region, weakness, and a loss of body weight of 5 kg has been noted. A month ago, jaundice appeared. During this entire period, she did not experience any attacks of pain. The chair is acholic. On examination: intense yellowness of the skin and sclera, the abdomen is soft, the liver is compacted, protrudes from under the edge of the costal arch by 6 cm, its edge is sharp. Moderate palpation pain is detected in the epigastrium and the projection of the gallbladder, which is not palpable.

Questions:

What preliminary diagnosis can be made? Define Clinical

Group

Answers:

Malignant tumor of the organs of the biliopancreatoduodenal zone, most likely cancer of the head of the pancreas.

Ia

Task 70.

A 72-year-old patient complains of pain in the rectal area, secretion of mucus and blood during defecation, and tenesmus. History: chronic proctitis.

Questions:

What preliminary diagnosis can be made? Define Clinical

Group

Sample answer:

An elderly patient with a long-standing chronic inflammatory disease has a clinical picture characteristic of rectal cancer.

Ia

Task 71.

A 60-year-old patient complains of weakness, loss of appetite, low-grade fever, unstable stool, and periodic pain in the right half of the abdomen. Survey data:

X-ray of the lungs without pathology.

ECG: sinus rhythm, 85 per minute, load on the right atrium. Clinical blood test: hemoglobin - 60 g/l;erythrocytes - 4.0X1012/L; color index - 0.9; platelets -240x109/1; leukocytes - 8.2x109/l (band - 1%, segmented - 61%, eosinophils - 7%, lymphocytes - 8%, monocytes - 13%); ESR – 30 mm/h. Urinalysis: density - 1003 g/l, medium reaction - neutral, leukocytes - 0-3 in the field of view. EGDS without pathology. Ultrasound of the abdominal cavity: diffuse changes in the liver. **Ouestions**: What is the presumptive diagnosis? Name the clinical form Name the clinical group Sample answer Cancer of the right half of the colon.

Toxic-anemic form Ia

Task 72.

Patient S., 64 years old, was taken by ambulance to the clinic with complaints of cramping abdominal pain after 15-20 minutes, repeated vomiting, and failure to pass stool and gas. Sick for 6 hours, no previous treatment. When examining decreased nutritional status, the abdomen is evenly distended, intestinal motility is increased and sonorous. A digital examination of the rectum reveals an empty ampoule. On a plain X-ray of the abdominal organs, Kloiber's cups are identified. Conservative therapy, including a siphon enema, had no effect. Emergency surgery performed. A tumor of the sigmoid colon measuring 6x6 cm was discovered, completely blocking its lumen, growing into the serous membrane, enlarged dense lymph nodes in the mesentery along the sigmoid artery, metastatic in appearance. The afferent segment of the colon and small intestine is sharply dilated and overflowing with intestinal contents. There is no effusion in the abdominal cavity.

Questions:

Determine the diagnosis of the disease Name the complication that the patient experienced Determine the estimated stage of the disease using the TNM system *Sample answer:* Sigmoid colon cancer Acute intestinal obstruction. T4N+M0, stage III

Task 73.

Patient K, 72 years old, applied to the oncology clinic with complaints of bloating, constipation and periodic attacks of cramping abdominal pain. Fibercolonoscopy with biopsy at the place of residence revealed a circular stenotic tumor of the splenic angle of the colon, histological conclusion: mucus-forming adenocarcinoma. Ultrasound of the abdominal cavity revealed 2 hyperechoic foci measuring up to 3 cm in the liver.

Questions:

Determine the diagnosis of the disease

Name the clinical form of the disease

Determine the estimated stage of the disease using the TNM system

Sample answer:

Cancer splenic angle colon intestines, complicated chronic intestinal obstruction Obstructive form T3NxM1, stage IV

Task 73.

A 63-year-old patient was admitted to the surgical department as an emergency. Complains of cramping abdominal pain, gas retention and lack of stool for two days. There was a single vomiting. The pain appeared suddenly 4 hours ago. Before this, for 6 months, he periodically noted stool retention, and occasionally found blood in the stool. I didn't go to the doctors. There were no operations on the abdominal organs. Moderate condition. The tongue is a bit dry. The abdomen is swollen, soft on palpation, moderately painful in all parts, intestinal motility is increased. Shchetkin's symptom is negative. Pathological formations in the abdominal

the cavities cannot be palpated. On rectal examination, the ampulla is empty, the sphincter is atonic. During the siphon enema, it was possible to introduce about 700.0 ml of water into the rectum. With a survey X-ray of the abdominal cavity, Kloiber's cups are visible in the loops of the large and partially small intestine.

Questions:

What type of intestinal obstruction does the patient have?

What is the most likely cause of intestinal obstruction?

Sample answer:

Obstructive.

Colon cancer.

In vertical. On radiographs taken in a horizontal position, Kloiber's cups are not visible.

Task 74.

A 55-year-old patient complains of dull pain in the right iliac region and low-grade fever. Ill for 2 months, there was no acute onset. In the iliac region there is a dense formation up to 6 cm in diameter with unclear contours. Limited mobility, painless. During irrigoscopy, there is a filling defect in the cecum.

Questions:

Your diagnosis Define Clinical Group Sample answer: Cecal cancer. Ia

Task 75

The patient is 19 years old. Complaints of pain in the right shoulder, intense, disturbing at night, increased body temperature in the evenings to 38.5-39.00C. Sick for 3 weeks. Objectively: the right shoulder has a normal configuration, the skin is not changed, upon palpation there is local pain in the middle third. The patient underwent radiography and radioisotope study of the skeletal bones: the tumor is located in the middle third of the humerus, extends up to 5 cm, extends beyond the cortical layer, the lesion of the periosteum is determined according to the type

"bulbous" periostitis. Increased levels of alkaline phosphatase and LDH were detected in the blood serum. An X-ray examination of the chest organs revealed multiple round shadows ranging in size from 1.5 to 3 cm in the parenchyma of the right lung.

Questions:

What is your preliminary diagnosis? Name the

stage of the disease

Name the clinical group

Sample answer:

Ewing's sarcoma of the right shoulder with metastatic lesions of the right lung. IV

stage

II clinical group

### PC8

#### **Closed tasks**

Task 1. Instructions: Choose one correct answer Which treatment method is leading for skin melanoma. 1) surgical excision 2) radiation therapy
 3) electrocoagulation or cryodestruction
 4) chemotherapy
 *Response standard*: 1) surgical excision

Task 2. Instructions: Choose one correct answer
The main criteria for the effectiveness of treatment in oncology include
1) Karnofsky scale and ECOG index
2) duration of temporary and permanent disability
3) survival, quality of life
4) Mann-Whitney test *Response standard*: 3) survival, quality of life

Task 3. Instructions: Choose one correct answer.
An independent method of radical treatment of thyroid cancer is
1) immunotherapy
2) chemo-hormonal
3) ray
4) surgical *Response standard*: 4) surgical

Task 4. Instructions: Choose one correct answer.

Combined surgery in oncology means tumor removal

1) together with a regional lymphatic barrier and simultaneous surgery for any other nononcological disease

2) within healthy tissues along with the regional lymphatic barrier and all accessible lymph nodes and fiber in the surgical area

3) with resection (removal) of another organ involved in the tumor process

4) with resection (removal) of another organ involved in the tumor process

5) within healthy tissues along with the regional lymphatic barrier

Response standard: 3) with resection (removal) of another organ involved in the tumor process

Task 5. Instructions: Choose one correct answer.

During radiotherapy of cancer, the incidence of local radiation reactions is most influenced by: 1) elderly age

2) presence of diabetes mellitus

3) history of allergic diseases

4) irradiation regimen and dose

Response standard: 4) irradiation mode and dose

Task 6. Instructions: Choose one correct answer. In radiation

therapy for basal cell carcinoma, the following is most often used:

1) close focus x-ray therapy

2) irradiation at electron accelerators

3) photodynamic therapy

4) brachytherapy

*Response standard*: 1) close-focus radiotherapy

Task 7. Instructions: Choose one correct answer. Antitumor drugs of the antimetabolite group include: metronidazole;
 gemcitabine;
 oxaliplatin
 paclitaxel
 *Response standard*: 2) gemcitabine;

Task 8. Instructions: Choose one correct answer.
With a clinical diagnosis of melanoma without morphological verification, the following treatment can be started:
1) immunosuppressive
2) chemotherapy
3) radial
4) surgical *Response standard*: 2) antihormonal

Task 9. Instructions: Choose one correct answer.
In the case of a resectable tumor of the lower ampullary rectum involving the sphincter, the following is indicated:
1) Hartmann's operation.
2) anterior rectal resection
3) abdominoperineal extirpation of the rectum
4) abdominoperineal extirpation of the rectum *Response standard*: 4) abdominoperineal extirpation of the rectum

Task 10. Instructions: Choose one correct answer.

What kind of surgical intervention is distal gastrectomy in case of bleeding from a disintegrating cancer tumor and the presence of multiple metastatic liver lesions?

1) radical

2) palliative

- 3) cytoreductive
- 4) symptomatic

Response standard: 4) symptomatic

Task 11. Instructions: Choose one correct answer.

The unit of measurement for absorbed focal dose of radiation in oncology is

1) Gray

2) Curie

3) roentgen/hour
 4) glad

*Response standard:* 

Task 12. Instructions: Choose one correct answer.

Determine the most clinically and prognostically favorable morphological variant of Hodgkin lymphoma

1) lymphoid predominance

- 2) mixed cell variant
- 3) nodular sclerosis
- 4) lymphoid depletion

Response standard: 1) lymphoid predominance

Task 13. Instructions: Choose one correct answer.

In the treatment of breast cancer, determination of steroid hormone receptors is necessary to:

- 1) chemoradiotherapy
- 2) hormone therapy

3) neoadjuvant chemotherapy

4) targeted therapy

Response standard: 2) Hormone therapy

Task 14. Instructions: Choose one correct answer. Does not apply to radical operations for liver cancer
1) right hemihepatectomy
2) atypical liver resection
3) enucleation of a tumor node
4) segmentectomy

Response standard: 3) enucleation of the tumor node

Task 15. Instructions: Choose one correct answer. For malignant primary bone tumors, organ-preserving operations include:

1) segmental bone resection with replacementtransplant

- 2) limb amputation with primary prosthetics
- 3) limb disarticulation

4) interscapular-thoracic amputation

Response standard: 1) segmental bone resection with graft replacement

Task 16. Instructions: Choose one correct answer. What is the main goal of radiation therapy according to the radical program?

1) achieving the maximum possible tumor regression

2) delivering the maximum possible dose of radiation to the tumor

3) achieving complete tumor regression

4) reduction in the biological activity of tumor cells

Response standard: 3) achieving complete tumor regression

Task 17. Instructions: Choose one correct answer. Proximal gastrectomy for cancer should be performed

1) with infiltrative tumor of the cardiac part of the stomach

2) with exophytic tumor of the gastric cardia

3) for tumors of the cardiac part of the stomach, regardless of the type of its growth.

4) with exophytic tumor of the proximal and upper parts of the stomach

Response standard: 2) with exophytic tumor of the cardia of the stomach

Task 18. Instructions: Choose one correct answer.

When performing radical mastectomy according to Halsted-Meyer

1) the pectoralis major muscle is preserved

2) the pectoralis minor muscle is preserved

3) pectoralis major and minor muscles are removed

4) pectoralis minor muscle is removed

Response standard: 3) the pectoralis major and minor muscles are removed

Task 19. Instructions: Choose one correct answer.

Distal gastrectomy for cancer in the presence of multiple liver metastases can be performed when: 1) decompensated stenosis of the gastric outlet 2) stomach bleeding

3) relatively satisfactory condition of the patient

4) technical feasibility of performing the operation

Response standard: 2) gastric bleeding

Task 20. Instructions: Choose one correct answer.
Chemoperfusion of the hepatic artery is:
1) using systemic chemotherapy
2) by infiltration chemotherapy
3) by regional chemotherapy
4) by intracavitary chemotherapy *Response standard*: 3) by regional chemotherapy

Task 21. Instructions: Choose one correct answer. The main treatment method for osteogenic sarcoma is

1) surgery

2) radiation therapy

3) systemic chemotherapy

4) combination treatment

Response standard: 4) combination treatment

Task 22. Instructions: Choose one correct answer. Radiation

therapy is used to treat Ewing's sarcoma

1) as a possible radical treatment option

2) as a standard element of complex treatment

3) for the prevention of distant metastasis

4) Radiation therapy is not used

Response standard: 2) as a standard element of complex treatment

Task 23. Instructions: Choose one correct answer.

During surgical treatment of melanoma of the skin of the anterior abdominal wall, one should retreat from the edges of the tumor no less than:

1) by 0.5 cm 2) by 1.0 cm

3) by 2.0 cm

4) by 3.0 cm

*Response standard*: 3) by 2.0 cm

Task 24. Instructions: Choose one correct answer.

Radical surgery for pancreatic head cancer is:

1) gastropancreatoduodenal resection

2) Monastyrsky's operation

3) duodenal extirpation

4) corporate-caudal pancreatectomy

Response standard: 1) gastropancreatoduodenal resection

Task 25. Instructions: Choose one correct answer.

The most effective method of systemic therapy for follicular thyroid cancer is the use of

1) bleomycin

2) radioisotope iodine-131
3) mitomycin C4) cisplatin*Response standard*: 2) radioisotope iodine-131

# Open type tasks

Task 2. The main criteria for the effectiveness of treatment in oncology include

Sample answer: survival and quality of life

Task 3. A radical method of treating pancreatic head cancer is

Sample answer: surgical

 Task 4.

 The main method of treatment for lymphogranulomatosis is

 Sample answer: chemoradiation

Task 5

Task 6.

The use of two or three main methods for the treatment of cancer in any sequence or simultaneously, with mandatory inclusion

\_\_\_\_\_method is called combined

Sample answer: surgical

Task 7.

Task 8.

A set of techniques aimed at destroying malignant tumor cells scattered in the surgical field is called\_\_\_\_\_

Sample answer: Antiblastics

Task 9.

Radiation therapy for the purpose of devitalization of possible scattered cells in the surgical field, as well as irradiation of areas of regional metastasis refers to

Sample answer: Postoperative Task 9.

The administration of cytostatic drugs in the treatment of cancer orally, intravenously, intramuscularly, subcutaneously, rectally is classified as

chemotherapySample answer: system

Task 10.

For breast cancer in women with estrogen receptor-positive tumors, removal of the ovaries is an option\_\_\_\_\_\_treatment

Sample answer: hormonal

Task 11.

A 56-year-old patient underwent emergency surgery for acute intestinal obstruction. Laparotomy and revision of the abdominal cavity revealed that the obstruction was caused by a tumor of the sigmoid colon. No visible metastases are detected. The tumor is 10x8 cm in size, circular, moderately mobile, invades the serous membrane. Proximal to the tumor, the intestine is moderately distended, containing intestinal contents and gas; distal, the intestine is in a collapsed state. No pronounced symptoms of peritonitis are identified. There is a small amount of serous effusion in the pelvis.

Questions:

What volume of operation is shown?

What complications of colon tumors do you know?

List the main directions of therapy in the postoperative period. What complications

are possible in the postoperative period?

Sample answer:

Resection of the sigmoid colon with the formation of a single-barrel unnatural anus (obstructive resection, Hartmann operation).

Bleeding, acute intestinal obstruction, perforation, invasion of neighboring organs with the formation of internal and external fistulas

Infusion and detoxification therapy, antibiotic therapy, prevention of thromboembolic complications.

"Surgical" complications associated with the operation: suppuration of the postoperative wound, intra-abdominal bleeding, early adhesive intestinal obstruction, failure of the sutures with the development of peritonitis or abscesses of the abdominal cavity and

"therapeutic" complications associated with systemic disorders: pneumonia, liver and kidney failure, cardiovascular failure, pulmonary embolism, etc.

Task 12.

A 64-year-old man complained of dull pain in the epigastric region, retention of solid food in the esophagus at the level of the xiphoid process of the sternum, progressive weakness, weight loss, and loss of appetite. History of the disease. He has been suffering from chronic gastritis for 20 years. The disease manifested itself as heartburn, bitter belching due to an error in diet. Three months ago, for no apparent reason, a dull pain appeared in the epigastric region, occurring after eating. After a month, the pain became constant, but remained mild. I consulted a therapist. The doctor diagnosed an exacerbation of chronic gastritis and prescribed a diet and medication. There was no effect from the treatment. Two months ago, solid food began to linger in the area of the xiphoid process. The patient began to lose weight, his appetite worsened, and increasing weakness appeared. Anamnesis of life. He has been smoking since he was 15 years old. Objectively. The food is satisfactory. Stomach

soft, mild pain on palpation in the epigastric region, tumor-like formations are not palpable. *Questions:* 

What should the therapist do when the patient first contacts him?

What disease can be thought of based on the available clinical data? What diseases need differential diagnosis?

Which clinical group of follow-up can this patient be included in? What type of treatment is the main one?

Sample answer:

Refer the patient for endoscopic or x-ray examination Gastric cancer

Exacerbation of chronic gastritis or gastric ulcer, esophageal achalasia, gastroesophageal reflux disease (GERD), gastric polyps

Ia Surgical

Task 13.

A 60-year-old patient complains of a feeling of heaviness and pain in the epigastric region after eating, nausea, heartburn, periodic vomiting of food, weakness, progressive weight loss, and loss of appetite. Ill for two months. Initially, pain appeared in the epigastric region to the right of the midline, dull and aching. After 2 weeks, I began to feel a full stomach after eating, nausea, and vomiting in the afternoon, which brought relief. In the vomit I found poorly digested food eaten in the morning. Later weakness set in, appetite worsened, and I began to lose weight. Weight loss in 2 months. amounted to 10 kg. For 10 years he has been suffering from chronic gastritis, which was manifested by heartburn, bitter belching and aching diffuse pain in the epigastric region after eating. These symptoms occurred rarely and were provoked by alcohol intake and poor diet. They were controlled by diet and drinking soda. He underwent endoscopic examination twice. Conclusion: chronic atrophic gastritis. Heredity is not burdened. Objectively: Nutrition is reduced. The abdomen is painless; a splashing sound is detected in the epigastric region. The liver is not enlarged. No tumor-like formations are palpable in the abdominal cavity. *Questions* 

Based on this description, which disease seems most likely?

What minimal instrumental studies need to be ordered to establish a diagnosis?

Description of the radiologist (gastroscopy): The stomach on an empty stomach contains a large amount of mucus and is hypotonic. The antrum is circularly narrowed, the contours are uneven, undermined, peristalsis is not visible, evacuation from the stomach is slow. What complication occurs in this patient, in what form of tumor growth is such an X-ray picture possible?

Upon additional examination, distant metastases were discovered in the patient. To which organ does gastric cancer most often metastasize hematogenously?

What treatment does this patient need?

Sample answer:

Stomach cancer

X-ray of the esophagus and stomach, FGDS with biopsy, ultrasound or X-ray of the abdominal cavity and pelvis, X-ray of the chest organs, ultrasound of the cervical lymph nodes Subcompensated stenosis. Infiltrative form. Liver

Symptomatic surgery - formation of gastroenteroanastomosis, then palliative chemotherapy

Task 14.

Patient N., 65 years old, was admitted to the clinic with complaints of weight loss, weakness, periodic epigastric pain, change in the color of stool (occasionally black). The patient underwent an X-ray examination of the stomach and fibrogastroscopy with biopsy. On the lesser curvature of the stomach, a formation measuring 6x4 cm with ridge-like edges and a sinking central part, covered with a gray coating, was found. A biopsy was taken, and histological examination of the obtained material revealed a picture of cancer. Further examination revealed no evidence of distant metastases.

Questions:

1. Name the macroscopic form of stomach cancer.

2. Name what height in relation to the lumen of the stomach is typical for her.

3. What histological type of cancer is most often found in this form of gastric cancer?

4. What extent of surgical intervention is indicated for the patient?

5. Where else can you look for lymphogenous metastases of stomach cancer, what is the peculiarity of lymphogenous metastasis of this tumor?

Sample answer: Infiltrative-ulcerative form of gastric cancer Endophytic

growth

Adenocarcinoma

Gastrectomy

Regional lymph nodes of the II and III orders (along the celiac trunk and its branches, paraesophageal, splenic hilar nodes, parapancreatic, parapyloric, etc. A feature is ortho- and retrograde lymphogenous metastasis and the possibility of the appearance of distant retrograde lymphogenous metastases

Task 15.

In the central part of the gland, the tumor is 7x7 cm, the nipple is flattened, the areola is infiltrated, skin swelling is of the "lemon peel" type.

What disease can be suspected? Determine the clinical

form of the disease Determine the volume of surgical

intervention Standard answer:

Breast cancer Nodular

form Mastectomy

Task 16.

Patient Zh., 49 years old, consulted a doctor with complaints of loss of appetite, weakness, weight loss, frequent epigastric pain, constant nausea, and periodic vomiting of undigested food. The listed symptoms gradually increase over 2 years; fibrogastroscopic examination with biopsies was performed 3 times.

Histological examination shows chronic superficial gastritis. Over the past 2 months, he has noted a progressive deterioration in his condition; he has lost up to 15 kg in weight. On examination, nutrition was reduced. The abdomen is moderately painful in the epigastric region. The liver is not enlarged. No tumor-like formations are palpable in the abdominal cavity. A dense, painless, inactive formation in the supraclavicular region on the left, 3.5 x 3 cm (lymph node), is determined. X-ray examination revealed a thickened, inextensible stomach in the form of a "skin bag".

Gastroscopy revealed thickening of the folds of the gastric mucosa in all parts; a biopsy was taken, which revealed signs of cancer.

## Questions:

1. Name the macroscopic form of stomach cancer.

2. Name what height in relation to the lumen of the stomach is typical for her.

3. What histological type (or types) of cancer is most often found in this form of gastric cancer?

4. What do the changes that are found in the left supraclavicular lymph node mean?

5. What stage of the disease and why?

What treatment is indicated for the

patient? Standard answer:

Total gastric cancer, diffuse-infiltrative form (linitis plastica). Endophytic growth

Tubular adenocarcinoma or signet ring cell carcinoma

These changes are characteristic of retrograde distant lymphogenous metastasis of gastric cancer (Virchow's metastasis occurs)

Stage IV of the disease (TNM criterion - M1) Palliative

chemotherapy

## Task 17

A 70-year-old woman suffered a myocardial infarction 4 years ago. During a follow-up examination with a cardiologist, she complained of a feeling of rapid satiety and a feeling of fullness in the stomach after eating small portions of food. She had no other gastric or general somatic complaints. These symptoms arose for no apparent reason 2 months ago. No dynamics were observed during this period. The doctor referred the patient for an X-ray examination and FGS.

Questions:

Is it justified to refer a patient for these studies in the presence of such mild symptoms? What minimum tests should be ordered when making a diagnosis? Does the patient need special treatment when the diagnosis of gastric cancer is confirmed?

What treatment is indicated for this patient?

Sample answer:

Justified. A feeling of rapid satiety and fullness in the stomach after eating small portions of food indicates a loss of elasticity of the stomach wall or the presence of a formation that reduces its lumen. In older people, cancer should be suspected. Low severity of clinical manifestations can be observed even with tumors of significant size. The absence of positive dynamics over 2 months is also characteristic of cancer.

X-ray of the esophagus and stomach, FGDS with biopsy, ultrasound or X-ray CT of the abdominal cavity and pelvis, X-ray of the chest organs, ultrasound of the cervical lymph nodes, blood test for tumor markers.

The patient needs special treatment.

In the absence of distant metastases, the radical method of treating stomach cancer is surgery. Old age and a previous myocardial infarction in the absence of disorders of the cardiovascular system are not an obstacle to surgery.

Task 18.

A 14-year-old girl, after an injury 4 months ago, developed swelling in the upper third of her lower leg and pain mainly at night. She received physiotherapeutic treatment. The compaction slowly increases. General condition is satisfactory. Body temperature is normal. In the upper third of the right leg there is a dense, slightly painful tumor measuring  $7 \times 6$  cm, not removed from the bone, without clear contours, the skin over it is not changed. Restricted mobility in the knee joint. Regional (inguinal) lymph nodes are not enlarged.

### Questions:

1. What is the presumptive diagnosis?

2. List the examination methods and their order.

3. What are the treatment tactics?

Sample answer:

1. The clinical picture corresponds to osteogenic sarcoma of the upper third of the right tibia.

2. It is necessary to perform an X-ray of the lower leg, knee joint and thigh in 2 projections, X-ray of the lungs, general, biochemical blood tests and a blood test for neuron-specific enolase, general clinical examination (ECG, coagulogram, general urine test), ultrasound of the affected area, inguinal lymph nodes and ABP, CT/MRI of the leg, trepanobiopsy of the tumor.

3. Treatment: in the absence of distant metastases - neoadjuvant

polychemotherapy, then (if possible) - organ-preserving surgery with endoprosthetics

Task 19.

A 9-year-old child had pain in the calf muscle of the left leg 1 month after the injury. A demarcated swelling is clearly visible on the lower leg. Low-grade fever.

Post-traumatic infiltrate was diagnosed. Physiotherapy was prescribed.

Questions:

What disease can be suspected in this case?

What studies need to be carried out to clarify the diagnosis? Have the

treatment tactics been chosen correctly?

Sample answer:

Soft tissue sarcoma of the left leg

It is necessary to perform an X-ray of the lower leg and knee joint and thigh in 2 projections, X-ray of the lungs, ultrasound of the affected area, inguinal lymph nodes and OB, CT/MRI of the lower leg, and puncture biopsy of the tumor.

No, when prescribing treatment, the doctor did not show oncological caution; in case of cancer, physical treatment can lead to very rapid progression of the disease and early and extensive metastasis

Task 20.

A 14-year-old boy has been complaining for two months of pain in the right knee joint, which has become intense over the past two weeks. The child does not sleep well at night due to pain, his appetite has worsened, and he has lost weight. History: the first child in the family, born full-term, grew and developed according to his age.

All vaccinations have been completed and there is no allergy history. Family history: parents are healthy, paternal grandmother died of rectal cancer. Examination: the skin is pale, the child is malnourished. Heart sounds are muffled, heart rate 100 beats/min, blood pressure 110/70 mm Hg. Breathing in the lungs is harsh, there is no wheezing. The tongue is moist, the abdomen is soft, painless on palpation, the liver is along the edge of the costal arch, the spleen is not palpable. Locally: there is swelling in the lower third of the right thigh, the volume is increased by 4 cm compared to the healthy thigh, the venous pattern is increased, movements in the knee

joint are limited. On the radiograph: a lytic lesion in the lower third of the femur with indistinct contours, Codman's triangle and the formation of bone substance along the vessels. General blood test: Hb 75g/l, erythrocytes 3.1.1012/l, color index 0.6; leukocytes 9.8.109/l; p/o 5%; s/y 63%; e 3%; lymphocytes 21%; monocytes 8%; ESR 54mm/hour. General urine analysis: straw-yellow color, transparent, pH 6.0; specific weight 1023, protein negative, sugar negative, leukocytes 2-3 per cell, red blood cells

0. Biochemical analysis: total protein 55g/l, albumin 50%, globulins:  $\alpha 1$  3%,  $\alpha 2$  13%,  $\beta$  12%,  $\gamma$  22%; alkaline phosphatase 280 units/l, ALT 23 units, AST 28 units, amylase 30 units/l, thymol test 4 units, total bilirubin 16 µmol/l, bound 2 µmol/l, direct reaction. Ultrasound of the abdominal organs: the liver is not enlarged, the parenchyma is homogeneous, echogenicity is normal, the liver vessels are not dilated. X-ray of the lungs - pulmonary fields without focal shadows.

Questions:

Justify the diagnosis.

Determine the stage of the disease.

Which diagnostic method will be decisive? Make a

treatment plan.

Sample answer:

Diagnosis: osteogenic sarcoma of the distal metaphysis of the right femur, Stage IIB Trephine biopsy with histological examination

Treatment tactics: preoperative chemotherapy, surgical treatment (amputation at the level of the hip), postoperative courses of chemotherapy.

Task 21.

A mother and her 6-month-old baby are visiting a pediatrician at a clinic. Complaints about the presence of a tumor-like formation in the chest area on the left. From the anamnesis it is known that the child has had this formation since birth and slowly increases with age. Over the past two weeks it has begun to progressively increase in size. The somatic status is not disturbed. Locally: on the anterolateral surface of the chest on the left at the level of the III-IV ribs, a tumor-like formation measuring 5.0x6.0 cm, purple-cyanotic color, grows into the skin, protrudes above it by 0.5 cm, the surface is velvety, the formation is painless on palpation, When pressed, it turns pale; when the finger is removed, the color is restored again. Blood test: red blood cells 3.8.1012/l, Hb 132g/l, leukocytes 6.8.109/l. Urinalysis: straw-yellow color, specific gravity 1016, negative sugar, negative protein, squamous epithelium, single in p/z.

Questions:

Make a diagnosis. What is

the pediatrician's tactics?

What is this disease? How is this disease

differentiated?

Provide the necessary additional research and treatment plan for this pathology.

Sample answer:

Cavernous hemangioma of the chest area on the left.

A consultation with a pediatric surgeon is necessary to decide on treatment tactics. Hemangioma is a benign vascular tumor, consisting of many cavities of different sizes and shapes, lined with a single layer of endothelial cells.

Differentiate with other types of hemangiomas (capillary, branched, combined, mixed), congenital vascular spots.

Additional research methods: chest ultrasound, hemostasis study, group and Rh affiliation.

Treatment plan: surgical treatment - excision of the tumor within healthy tissue.

Task 22.

Boy, 11 years old. Complaints of pain in the right half of the chest, swelling above the right collarbone, periodic increases in temperature up to 38°C. History: after suffering from a sore throat, pain appeared in the chest, two weeks later - swelling above the collarbone. In the blood test there are inflammatory changes. Objectively: swelling without clear boundaries above the right collarbone, painful on palpation. X-rays of the chest in two projections show a large homogeneous rounded node occupying the upper third of the right hemithorax, the pulmonary pattern is enhanced under the node.

An X-ray of the chest in a direct projection shows small focal mixed destruction in the first right rib along its entire length with a linear periosteal reaction along the upper contour of the rib. *Questions:* 

What is your conclusion?

Defining diagnostic method? Possible treatment

options?

Sample answer:

Ewing's sarcoma of the first right rib. Prepanbiopsy with

histological examination

Treatment is multicomponent chemoradiotherapy. If possible, radical removal of the tumor (including bone and soft tissue component).

Task 23.

Patient K., 67. complains of dull pain in the lower abdomen, periodically accompanied by bloating, rumbling in the abdomen, unstable stools, alternating constipation and diarrhea, an admixture of mucus and blood in the stool. These complaints are noted for 6 months. Recently I began to feel weakness, malaise, increased fatigue, and slight weight loss. Temperature in the evenings – 37.2 - 37.5°C.

Questions:

What disease can be suspected?

In which part of the colon can the tumor be localized?

What laboratory and instrumental studies need to be performed? Determine treatment tactics for a colon tumor without radiological signs of colonic obstruction and distant metastasis. Determine the principles of treatment after surgery.

Sample answer:

A colon tumor may be suspected.

In the sigmoid colon or rectosigmoid colon.

General blood test, general urine test, blood test for tumor markers, irrigoscopy, fibrocolonoscopy with biopsy, ultrasound or X-ray CT of the abdominal cavity and pelvis, chest radiography In the absence of data for distant metastasis, surgical treatment is indicated - resection of the sigmoid colon

Depends on the stage of the disease. In all cases T>2 and N+, adjuvant PCT is indicated; in the T2N0M0 situation, PCT is performed after the result of a genetic analysis for microsatellite instability.

Task 24.

The patient, 49 years old, was treated in the therapeutic department for iron deficiency anemia and was discharged with some improvement. For the last 2 months I have been worried about headaches, severe weakness, lack of appetite, decreased performance, I lost weight up to

10 kg, periodically notices black stool. Objectively: the skin is pale, the abdomen is soft, painless on superficial palpation; on deep palpation, a tumor-like formation measuring 6x4 cm is detected in the right hypochondrium, somewhat painful, lumpy, without clear contours, moderately displaced.

There are no symptoms of peritoneal irritation.

Questions:

Make a preliminary diagnosis?

Determine the tactics of treating the patient and the expected scope of the operation. Determine the principles of treatment after surgery?

Sample answer:

Tumor of the hepatic angle of the colon.

If there is no evidence of distant metastasis, surgical treatment is indicated - right hemicolectomy. Depends on the stage of the disease. In all cases T>2 and N+, adjuvant PCT is indicated; in the T2N0M0 situation, PCT is performed after the result of a genetic analysis for microsatellite instability.

## Task 25.

Patient K., 65 years old, consulted a doctor with complaints of aching pain in the left hypochondrium and a feeling of heaviness. Recently he has noticed a decrease in appetite, over the past month he has lost about 5 kg in weight, constipation has appeared, and stool retention occurs for 2-3 days.

Periodically there is bloating. The patient has increased nutrition, the skin and visible mucous membranes are of normal color. Pulse 78 beats. per minute Blood pressure 140/80 mm Hg. Art. Vesicular breathing is observed over the pulmonary fields. The tongue is coated with a whitish coating. The abdomen is soft, moderately painful in the left hypochondrium, and on deep palpation a slow-moving tumor-like formation is not clearly visible. There are no symptoms of peritoneal irritation. During a digital examination of the rectum, the sphincter is toned, the feces on the glove are of a normal color, pathological formations are not identified. Diuresis is sufficient.

Questions:

Make a preliminary diagnosis.

What research methods should be used to make a final diagnosis?

What is the minimum extent of surgery indicated for uncomplicated cancer of the splenic angle of the colon?

Determine the principles of treatment after surgery?

Sample answer:

Cancer of the splenic angle of the colon.

General blood test, general urine test, blood test for tumor markers, irrigoscopy, fibrocolonoscopy with biopsy, ultrasound or X-ray CT of the abdominal cavity and pelvis, chest radiography Left-sided hemicolectomy.

Depends on the stage of the disease. In all cases T>2 and N+, adjuvant PCT is indicated; in the T2N0M0 situation, PCT is performed after the result of a genetic analysis for microsatellite instability.

Task 26.

Patient K., 42 years old, complains of the release of blood and mucus at the beginning of defecation, periodic constipation, followed by diarrhea. When examining per rectum at a distance of 7 - 8 cm from the anus, the lower edge of the tumor-like formation is determined to be dense, lumpy, examination is moderately painful, the tumor-like formation occupies up to 2/3 of the semicircle of the rectum. Questions:

Make a preliminary diagnosis.

What types of operations are used for this pathology?

During examination, the patient was found to have enlarged paratumorous lymph nodes in the mesorectal tissue. What should be the treatment plan?

Sample answer:

Rectal cancer

Anterior resection of the rectum (including obstructive), abdominal-anal resection of the rectum, abdominoperineal extirpation of the rectum.

In this patient, combined treatment is indicated, surgery in combination with chemoradiotherapy. It is optimal to carry out a neoadvant course of chemoradiotherapy followed by surgery and adjuvant chemotherapy for 6 months.

Task 27.

The patient, 52 years old, has lost 7 kg over the past two months. Two weeks ago, skin itching, yellowness of the skin and sclera, and dark urine appeared. The pain syndrome is not expressed. Objectively: yellowish skin with an earthy tint. A dense, smooth, spherical, painless formation is palpated in the right hypochondrium. The liver protrudes 3 cm from under the edge of the costal arch, its edge is smooth, its surface is even. Questions:

What disease can be suspected? What

complication does the patient have?

What is the name of the symptom identified in the patient?

Determine possible treatment option

Sample answer:

Cancer of the head of the pancreas

Obstructive jaundice syndrome

Courvoisier's sign

External drainage of the bile ducts, preferably percutaneous transhepatic cholangiostomy under ultrasound guidance, further treatment tactics will be determined depending on the examination results.

Task 28.

Patient Ya., 59 years old, has had jaundice and decreased appetite for 2 months, and has lost 15 kg. The examination revealed an enlarged liver, a sedentary formation was palpated in the epigastric region on the right above the navel. Over the past 2 weeks, he has noted vomiting mixed with blood, nosebleeds, and the appearance of hemorrhages on the torso. *Questions:* 

What diagnosis can be made in this case?

What diseases should this pathology be differentiated from? Determine the plan for examining the patient

What should be the treatment tactics?

Sample answer:

Pancreatic head cancer

With other tumors of the biliopancreatoduodenal zone, colon and stomach cancer

Ultrasound of the abdominal cavity, FGDS

The first stage of treatment should be external drainage of the bile ducts (optimally percutaneous transhepatic cholangiostomy under ultrasound guidance)

Task 29.

Patient G., 60 years old, was hospitalized at the clinic for examination due to pain in the right hypochondrium and signs of jaundice. History of viral hepatitis B, complicated by liver cirrhosis. A physical examination revealed an enlarged, painful and lumpy liver protruding from under the costal arch.

Abelev-Tatarinov's reaction is sharply positive. Ultrasound of the abdominal cavity revealed a nodular formation in the right lobe of the liver measuring 15x12 cm, involving the IV segment, 2 nodes in the left lobe of the liver measuring 3x2 and 2x2 cm, ascites up to 1L. The lymph nodes of the porta hepatis and hepatoduodenal ligament are not enlarged. Further examination did not reveal any other lesions. A liver biopsy was performed. Histological examination of the biopsy specimen reveals a tissue area consisting of small parenchymal-like cells with very large nuclei with an increased nuclear-cytoplasmic ratio (8:1). There are nuclei of irregular scalloped shape with a delicate (young) structure, containing 3-5 large nucleoli. The cells do not form intercellular contacts, lie separately, and do not form tissue structures characteristic of the liver. These cells have mitotic figures. In some areas, these cells perforate the walls of microvessels, grow into the surrounding tissue elements, destroying them, grow into the liver capsule and infiltrate the tissues of organs adjacent to the liver.

Questions:

What is your diagnosis?

Name the manifestations of tissue and cellular atypia that occur in the histological specimen. Determine the probable stage of the disease What type of

treatment is preferable

Sample answer:

Primary liver cancer

Viral hepatitis and liver cirrhosis are optional precancerous diseases for primary liver cancer Stage IIIA (T3N0M0)

TACE followed by systemic therapy

Task 30.

A 68-year-old smoker developed a dense, painless formation on the mucous membrane of the red border of the lower lip, covered with a crust measuring 1.0 cm. A dense lymph node up to 2.0 cm in size was palpated on the left side of the neck.

Questions:

What is your preliminary diagnosis?

Schedule an examination

A histological examination of biopsy material from a tumor and a lymph node in the neck revealed the presence of keratinizing squamous cell carcinoma.

No lesions of other regional lymph nodes, as well as distant metastases, were detected. Name the stage of the process.

What treatment should be prescribed?

Sample answer:

Lower lip cancer

It is necessary to perform a scraping or biopsy with morphological examination, puncture biopsy of an enlarged lymph node in the neck, ultrasound of regional lymph nodes (including cervical, occipital, submandibular, supraclavicular), ultrasound of the abdominal organs to exclude metastatic liver disease, radiography of the lower jaw to assess possible tumor invasion in bone structures, chest x-ray to exclude metastatic lesions of the lungs. Based on the size of the tumor up to 2 cm and the presence of a single metastatic lymph node, the patient has stage III disease (T1N1M0) Combined

Task 31.

Patient N., 53 years old, welder. Smokes for 30 years. Complains of choking, pain when swallowing, sensation of a foreign body in the throat, hoarseness. Ill for 3 months. On examination, the cervical lymph nodes are not enlarged. A fibrolaryngoscopy was performed: the mucous membrane of the posterior pharyngeal wall is infiltrated by a tumor, there is ulceration, it bleeds on instrumental palpation, the vocal folds are fixed. A biopsy was performed. Histological conclusion: squamous cell carcinoma with keratinization.

*Questions:* 

What is the preliminary diagnosis?

What additional research methods should be used for diagnosis? An ultrasound scan of the neck revealed an enlargement of 1 paratracheal lymph node on the right. A puncture biopsy revealed the answer: metastasis of squamous cell carcinoma.

No distant metastases were detected. Determine the stage of the disease. What could be the treatment?

Sample answer:

Laryngeal cancer.

It is necessary to additionally perform an ultrasound of the neck to determine possible changes in the regional lymph nodes, an X-ray computed tomography of the neck and chest organs to clarify the extent of the pathological process and the presence of distant metastases, and an ultrasound of the abdominal cavity to exclude metastases in the liver. T3N1M0, stage III.

Treatment should be combined; laryngectomy in combination with excision of the cervical tissue and lymph nodes on the affected side is indicated. After surgery, radiation or chemoradiotherapy

Task 32.

Task 1.

A 48-year-old patient came to the appointment with a complaint of bloody discharge from the nipple of the right breast. I noticed this 3 weeks ago. Upon examination, a nipple ulcer measuring 0.5x0.7 cm with bloody discharge was revealed. Large mammary glands. The axillary lymph nodes on both sides are not enlarged by palpation.

A cytological examination of an impression smear from an ulcer of the right breast revealed cancer cells. The patient wishes to preserve her breasts.

Questions:

What is the probable diagnosis?

What additional research methods are needed? What should be

the scope of radical surgery?

Sample answer:

Paget's cancer

Ultrasound of the mammary glands, mammography, radiography of the lungs, ultrasound of the abdominal and pelvic organs.

If the axillary lymph nodes are clinically intact, level 1 axillary lymph node dissection can be used. It is possible to perform organ-preserving tumor removal with mandatory postoperative radiotherapy or mastectomy.

Task 33.

A 37-year-old patient noticed a lump in the left breast 2 weeks ago. Upon examination, a tumor was revealed in the upper outer quadrant of the left mammary gland, not fused with the surrounding tissues, measuring 1 cm. 1 lymph node in the left axillary region was enlarged. Cytological examination of punctate from the mass and lymph node revealed ductal adenocacinoma cells.

Questions:

Your diagnosis

What additional studies need to be performed on this patient to determine the stage of the disease? When examining data for distant metastases, it was not revealed, what should be the volume of radical surgery?

Sample answer:

Left breast cancer

Ultrasound of the mammary glands, mammography, radiography of the lungs, ultrasound of the abdominal and pelvic organs.

Regardless of the extent of surgery on the mammary gland, due to the presence of 1 metastatically affected lymph node, it is necessary to perform a complete axillary lymphatic dissection

#### Task 34.

A 38-year-old patient, during a medical examination, a mammography was performed, the results of which revealed that at the border of the inner quadrants of the left mammary gland there was a rounded shadow 1.3 cm in diameter with a rim of clearing. The patient makes no complaints. On examination: the mammary glands are symmetrical, the nipples are not retracted. On palpation at the border of the inner quadrants of the left mammary gland, a tumor is determined to be about 1.5 cm in diameter, soft-elastic consistency, regular round shape, displaceable, painless. Regional lymph nodes are not palpable.

Questions:

What is your diagnosis?

Further examination tactics? Further treatment

tactics?

Sample answer:

Solitary cyst of the left breast.

Needle biopsy of a left breast mass.

Once the diagnosis is confirmed, sectoral resection of the left breast is indicated.

Task 35.

A 48-year-old patient complained of swelling and tenderness of the left breast. The complaints arose two weeks ago, the symptoms gradually increased. Body temperature 36.6°C. On examination: the left mammary gland is larger than the right, the skin of the gland is diffusely swollen and hyperemic. There is an increase in local temperature. On palpation there is moderate pain, diffuse induration due to edema. Nodular formations are not identified. In the left axillary region, enlarged axillary lymph nodes are detected, of dense consistency and painless. *Ouestions:* 

Formulate and justify the diagnosis.

What diseases need differential diagnosis? Name the necessary additional research.

Determine the tactics and principles of treatment.

Sample answer:

Left breast cancer. Edema-infiltrative form. It should be differentiated from non-lactation mastitis.

It is necessary to perform a mammogram and ultrasound of the mammary glands. If nodular formations are detected, puncture. If they are absent, puncture of the lymph nodes in the axillary region.

Once the diagnosis is confirmed, systemic treatment (chemotherapy, hormone therapy) is prescribed. When a pronounced therapeutic effect is achieved, it is possible to perform surgical intervention in the scope of a mastectomy.

Task 36.

A 55-year-old woman accidentally discovered a tumor in her right breast. Menopause 5 years. On examination: the mammary glands are large, the skin is not changed, the nipples are unchanged, there is no discharge from them. Upon palpation, a dense, painless, inactive formation measuring 3.0x2.2 cm is determined in the upper outer quadrant of the right mammary gland.

Questions:

What is your preliminary diagnosis? Further examination tactics? Further treatment tactics?

Sample answer:

Breast cancer T2NXMX.

It is necessary to carry out: cytological examination of the tumor punctate, mammography, ultrasound of the mammary glands, abdominal and pelvic organs, chest radiography to determine distant and regional metastases

If there is no evidence of regional and distant metastasis, surgical treatment followed by radiation therapy or chemoradiotherapy.

Task 37.

A 50-year-old man was admitted to the therapeutic department of the hospital with complaints of weakness, cough with a small amount of sputum, and fever up to 37.5°C. History of frequent colds. Smokes. An X-ray examination of the lungs revealed darkening in the hilar zone of the right lung and a decrease in the airiness of the middle lobe.

Questions:

What disease should you think about?

What radiological sign is the main one for your diagnostic version?

What is the minimum amount of research that needs to be performed to clarify the diagnosis when confirming your diagnostic version?

The examination revealed no evidence of distant metastases, stage IIa disease, what treatment is indicated for the patient?

Sample answer:

Central lung cancer.

Decreased airiness of the middle lobe of the right lung Cytological

examination of sputum, bronchoscopy with biopsy Combined treatment

Task 38.

You work as a doctor in a therapeutic hospital. A patient has been admitted to you with a clinical picture of exacerbation of chronic bronchitis, with complaints of low-grade fever and a persistent dry cough with a small amount of sputum. X-ray of the lungs in 2 projections did not reveal any evidence of a malignant process. However, despite the treatment, the patient's condition does not improve, the temperature persists and blood streaks have appeared in the sputum.

## Questions:

What disease can be suspected in this case?

Indicate the main "alarming" symptoms that confirm your version of the diagnosis.

What research needs to be done first?

Sample answer:

A history of chronic bronchial disease, persistent dry cough, hemoptysis

Cytological examination of sputum, bronchoscopy with biopsy, X-ray computed tomography of the lungs

## Task 39.

A 57-year-old woman consulted a neurologist with complaints of pain in her right shoulder. Considers himself sick for a month. The onset of the disease is associated with severe hypothermia. The doctor diagnosed plexitis and prescribed physiotherapeutic treatment. The patient's condition worsened and a fever appeared. A few days later, the doctor diagnosed the presence of Horner's triad. Despite this, he continued treatment. Questions:

What disease can be assumed in this case?

What studies need to be performed to clarify the diagnosis? What does

Horner's syndrome include and what does Horner's syndrome indicate in this

situation? Analyze the actions of a neurologist.

Sample answer:

Cancer of the apex of the right lung (Pancoast cancer)

X-ray of the lungs in 2 projections, X-ray of the chest organs

The neurologist prescribed treatment without a preliminary x-ray examination; as a result, physiotherapeutic procedures led to rapid progression of the disease. The reason for this was the insufficient degree of "oncology alert" of the doctor.

Task 40.

The patient is 56 years old, worked for a long time in glass production, and is a smoker. She is seen by a therapist for chronic bronchitis; only fluorography is performed annually. After another visit to the doctor two months later, streaks of blood appeared in the sputum, he was treated on his own. His condition worsened, he developed a fever, weakness, and lost a lot of weight. When visiting a doctor, an X-ray examination of the lungs was performed and atelectasis of the lower lobe of the right lung lobe was detected.

Questions:

What disease can be assumed in this case?

What studies need to be performed to clarify the diagnosis? Analyze the doctor's actions.

Sample answer:

Central lung cancer. Endobronchoscopic examination

with biopsy

In this observation, the doctor's mistake was that an X-ray and bronchoscopic examination of the lungs was never performed, although the patient belongs to the risk group.

Task 41.

The patient is 61 years old. 3 years ago, a lobectomy was performed for central lung cancer T1N0M0. Histological conclusion – small cell carcinoma. He refused further treatment. Currently complaining of headaches.

Questions:

What treatment should be given to this patient after surgery? What pathology can be assumed in this case?

What diagnostic methods will help establish the correct diagnosis? *Sample answer:* 

Taking into account the histological conclusion, the patient was advised to undergo courses of adjuvant polychemotherapy

In this observation, brain metastases cannot be excluded.

It is necessary to perform RCT of the chest cavity, mediastinum, and brain.

Task 42.

A 55-year-old patient was treated for a long time by a surgeon for a trophic ulcer of the leg. There was no effect from conservative treatment; over the past 6 months the ulcers have increased in number. Upon examination during the next visit to the doctor: there is a trophic ulcer on the skin of the anterior surface of the leg, in the lower corner of which, in an area measuring 5x4x3 cm, the tissues are compacted, infiltrated, rise above the rest of the surface of the ulcer, there are no granulations, there is a fibrin film on the surface. Regional lymph nodes are not palpable. The doctor recommended continuing conservative treatment. *Questions:* 

 $\widetilde{W}$ hat disease can be suspected in this case? What research

needs to be done?

Analyze the doctor's tactics. What

treatment is needed?

Sample answer:

Taking into account the history, clinical picture, and the lack of effect of conservative treatment for several years, it is necessary to suspect squamous cell skin cancer. It is necessary to perform a cytological examination of the surface of the ulcer.

The doctor's actions lack oncological alertness, which can lead to progression of the disease and generalization of the tumor process.

Combined

Task 43.

A 14-year-old patient consulted a dermatologist with complaints of a pigmented tumor on the skin of her left thigh. From the anamnesis: this formation has existed since birth, increasing in parallel with the growth of the patient. During the period when menstruation began, I noticed a rapid increase in it, and three months before going to the doctor, I noticed a change in color and slight vulnerability. On examination: there is a pigmented tumor on the skin measuring  $3.0 \times 2.0 \times 1.0$  cm, with a lumpy surface, dark brown in color. The doctor referred the patient to an oncologist.

*Questions:* 

 $\tilde{W}$ hat disease can you think about? Specify risk

factors

Specify the symptoms of nevus activation.

What treatment method will be the main

one? Sample answer:

Melanoma of the skin.

Risk factors include: activation of congenital formation during puberty.

Symptoms of activation are tumor growth, change in its color.

Surgical

Task 44.

A 23-year-old patient consulted a surgeon with complaints of a tumor in the left axillary region. On examination: in the axillary area there is a dense conglomerate, the skin over it is hyperemic and thinned. The doctor, based on these data, diagnosed lymphadenitis and performed an autopsy. In this case, no pus was obtained, and loose, slightly bleeding black masses were detected at the bottom of the wound. Despite this,

The "abscess" was drained and anti-inflammatory treatment was prescribed. *Ouestions:* 

What disease can be discussed in this observation? Name the main

mistakes of a doctor-surgeon.

Possible answers:

Melanoma, metastatic form.

In this situation, the doctor did not collect anamnesis, did not fully examine the patient, and did not perform a puncture biopsy. Even in the absence of pus and the presence of structureless black masses, melanoma metastasis was not suspected. It was necessary to refer the patient to an oncologist.

### Task 45.

A 14-year-old boy has many pigmented formations on his skin. According to the mother, they are both congenital and appeared over the past year. Three formations on the anterior abdominal wall quickly increased in size and darkened. Upon examination by a dermatologist, they were found to be in an area of constant irritation from the waist belt. The doctor recommended observation.

Questions:

What factors are associated with the increase in the number of pigment formations? What tactics would you recommend?

Sample answer:

With puberty

Taking into account the period of puberty, the activation of three tumors and their constant traumatization, it is necessary to remove three pigmented tumors in an oncological institution with morphological verification. For other pigmented formations, dynamic monitoring by an oncologist should be recommended.

#### Task 46.

A 15-year-old girl was diagnosed with a tumor in the left neck area. The doctor did not identify painful symptoms or any specific disease in the patient, but drew attention to the presence of an enlarged cervical lymph node posterior to the sternocleidomastoid muscle measuring 3x2 cm, elastic, moderately mobile, fixed to the skin. A puncture biopsy revealed Reed-Stenberger cells. *Questions:* 

Define the disease.

What is the next step in the diagnostic process?

An examination did not reveal enlargement of other groups of lymph nodes, liver and spleen. Determine the stage of the disease.

What should the treatment be?

Sample answer:

Lymphogranulomatosis

KLA, OAM, B/C blood test, CT scan of the neck, chest and abdomenIA stage

Chemotherapy followed by a course of radiation therapy to the primary lesion

Task 47.

A 62-year-old patient was admitted with complaints of fever, night sweats, weight loss, and itching. Ill for 3 years. On examination: enlarged, mobile, not fused to the skin, dense elastic lymph nodes are palpated, merging into conglomerates in the cervical-supraclavicular region on the right. Lungs and heart without features. Liver at the costal arch. The spleen protrudes 3 cm from under the costal arch. Blood test: Hb 100, leukemia. 3.2, Eoz. 11%, p/o 4%, p/o 62%, lymph 14%, mon. 6, thrombus. 20.0, ESR 20.

Questions:

What is the most likely cause of lymphoproliferative syndrome based on blood tests? What is expected in a lymph node biopsy?

What treatment should be prescribed?

Sample answer:

Lymphogranulomatosis.

Berezovsky-Sternberg cells

Chemotherapy followed by a course of radiation therapy to the primary lesion

Task 48.

Boy N., 3 years old, was admitted with complaints of a tumor-like formation in the abdominal cavity. A month ago, the child's mother accidentally, while bathing, noticed the presence of a tumor-like formation in the left half of the abdomen. On admission the condition was of moderate severity. The skin is clean and pale. Breathing is carried out on both sides. Upon examination, the abdomen is asymmetrical: the left half bulges; upon palpation, a tumor-like formation of dense elastic consistency is determined, lumpy, inactive, emanating from the left hypochondrium, painless. Stool and urination are not impaired. CBC: Erythrocytes – 2.9x1012/l, hemoglobin 109 g/l, ESR 50 mm/hour, leukocytes 9.0x109/l TAM: straw-yellow, transparent, specific gravity 1019, protein - turbid, leukocytes 0-1-1 in the field of vision, erythrocytes 10-11-12 in the field of view. A plain X-ray of the abdominal organs reveals a homogeneous darkening occupying the left half, the intestinal loops are shifted to the right. *Questions:* 

Name the main symptoms, highlight the leading one.

Your preliminary diagnosis.

What additional research methods should be used to make a diagnosis?

How can the diagnosis be verified? What treatment

should be given?

Sample answer:

Asymmetry of the abdomen, anemia, accelerated ESR, microhematuria, the presence of a homogeneous darkening of the left half of the abdomen on a survey radiograph of the abdominal organs, the leading symptom is the presence of a palpable formation in the abdomen.

Malignant tumor of the abdominal cavity, retroperitoneal space. Ultrasound scanning of the abdominal organs, retroperitoneal space, excretory urography

Percutaneous tumor biopsy with histological examination Combined

Task 49.

The parents of a 5-month-old child, Ch., complained that the girl had a tumor in the left lateral area of her neck. The parents discovered a small tumor on the neck 2 months ago. The child was examined by a pediatrician and the diagnosis was made:

lymphadenopathy of the cervical lymph nodes, anti-inflammatory and desensitizing therapy was prescribed. After 1 month, the size of the tumor tripled, a pediatric surgeon was consulted, and a fine-needle aspiration biopsy was performed. Cytological results: complexes of small round cells, possibly lymphocytic proliferation. For subacute simple cervical lymphadenitis, antibiotic therapy was prescribed, which had no effect. Objectively: the child is developed according to his age, active, has satisfactory nutrition. The skin is clean. Subcutaneous fatty tissue is well expressed, peripheral lymph nodes are not enlarged. Physical examination of the internal organs did not reveal any pathology. In the left lateral area of the neck, a painless tumor measuring 5x3 cm, extending under the sternocleidomastoid muscle with clear contours, is palpated, extending under the skin. Ultrasound showed the presence of a soft tissue tumor, consisting of two nodes merging with each other, a heterogeneous structure with areas of calcification , weakly intense intranodular blood flow adjacent to the neurovascular bundle, but not growing into its structure. *Questions:* 

Which of the presented research results allows us to suspect neuroblastoma?

Determine the minimum diagnostic tests to confirm the diagnosis and establish the stage of the tumor process?

What is the treatment strategy for a child in the absence of data on the presence of distant metastases?

Sample answer:

The presence of small round cells according to the results of a cytological study, the presence of calcium inclusions in the tumor tissue according to ultrasound.

RCT of the chest organs, ultrasound of the abdominal cavity and peritoneal space, review of cytological preparations and/or repeated aspiration biopsy of the tumor, study of the level of serum catecholamines, study of bone marrow puncture and trephine biopsy of the iliac bones. The first stage of treatment is radical removal of the tumor.

### Task 50.

Child Ya., 4 years old, had sharply decreased vision in his left eye over the course of several months. The parents noticed the wide "luminous" pupil of this eye. The child is not bothered by pain. When examined objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye =  $1/\infty$  plinc. The adnexal apparatus of the eye is not changed. The eye is calm. The anterior segment is without visible changes. The pupil is round, dilated, and practically does not react to light. Optical media are transparent. Ophthalmoscopically, a prominent yellowish-golden tuberous formation is visible in the fundus.

## Questions:

State your presumptive diagnosis.

Determine the necessary additional research. Determine the

main directions of treatment.

#### Sample answer:

The presumptive diagnosis is retinoblastoma of the left eye.

Ophthalmoscopy is performed with the pupil as dilated as possible. Ultrasound scanning complements the diagnosis of retinoblastoma, allows you to determine its size, confirm or exclude the presence of calcifications. X-ray computed tomography of the orbits and brain (or MRI) is indicated for children over 1 year of age.

Treatment is cryodestruction, laser coagulation and radiation therapy. For common forms, treatment is supplemented with polychemotherapy. In severe cases - enucleation.

Task 51.

The child is 3 years old. Complaints about the presence of a tumor-like formation in the abdomen. From the anamnesis it is known that about a month ago the mother noticed changes in the child's behavior: he became lethargic, adynamic, his appetite decreased, abdominal pain and low-grade fever were periodically noted. The second child in the family grew and developed according to age.

Vaccinations are done according to the age schedule. There is no allergic history. Family history: parents are healthy, grandmother had ovarian cancer. On examination: pronounced pallor of the skin, dark circles around the eyes. Heart sounds are clear, rhythmic, heart rate 96 per minute, blood pressure 100/60 mm Hg. The abdomen is enlarged in size, deformed due to a tumor-like formation in the left half of the abdomen, and the venous network is moderately pronounced on the abdominal wall. On palpation, the tumor has a dense consistency, a coarsely lumpy surface, dimensions 10.0 x 15.0 cm, painless, and inactive. General blood test: Hb 108g/l, erythrocytes 3.6.1012/l, color. Indicator 0.8; leukocytes 6.9.109/l; p/o 3%; s/y 63%; e 5%; lymphocytes 21%; monocytes 8%; ESR 56mm/hour. General urine analysis: straw-yellow color, transparent; pH 6.5, specific gravity 1018, leukocytes 4-6 in the field, erythrocytes 2-4 in the field, protein negative, sugar negative. Biochemical analysis: total protein 56 g/l, AST 0.13 units, AIAT 0.15 units, amylase 32 units/l, thymol test 3 units, Veltman test 6 units, bilirubin 8 µmol/l; C-reactive protein is negative, urea is 6.5 mmol/l. Excretory urography: the unchanged abdominal cavity system of the right kidney is performed, the ureter has a cystoid structure, emptying is satisfactory. On the left, the renal cavity system is not contrasted. Plain radiography of the lungs - without pathology.

Questions:

Make a diagnosis and justify it.

What additional research methods are needed to clarify the diagnosis? Suggest a treatment plan *Sample answer:* 

Tumor of the left kidney (nephroblastoma, Wilms tumor). Based on data from complaints, anamnesis, objective examination, excretory urography.

Additional research methods: ultrasound of the abdominal organs, nephroscintigraphy, abdominal angiography, computed tomography and MRI of the abdominal cavity and retroperitoneal space, puncture biopsy.

Treatment plan: preoperative chemotherapy, surgery, postoperative chemotherapy;

Task 52.

A 14-year-old patient, after an injury to the anterior surface of the right leg, notes a painful swelling at the site of the bruise. Due to the growth of the tumor, after 2 months he turned to the surgeon at the clinic, who prescribed compresses and UHF. The tumor continued to grow. He was sent to a children's surgical hospital, where the festering hematoma was opened three times, but no pus was obtained. Objectively: thickening of the middle third of the left leg. The skin over it is bluish-purple in color with an ulceration of  $4 \times 2$  cm. In the soft tissues, a compaction measuring  $8 \times 6$  cm is detected, without clear boundaries. The inguinal lymph nodes are not enlarged. The patient has low nutrition, the skin is pale in color.

## Questions:

Presumable diagnosis.

What mistakes were made at the previous stages of examination and treatment of the patient? What diagnostic methods should be used to clarify the diagnosis and extent of spread of the tumor process?

4. Determine possible treatment tactics.

### Sample answer:

Soft tissue sarcoma of the right leg

The clinic surgeon prescribed physical treatment, despite the fact that there was evidence of a tumor of the lower leg and its progressive increase, the hospital surgeons performed surgery 3 times (erroneously), but a biopsy was not performed.

X-ray computed tomography of the right lower limb and chest organs, ultrasound of the abdominal cavity, cytological examination of impression smears from the surface of the ulceration, tumor biopsy with histological examination.

The patient, taking into account the location and size of the tumor, is indicated for combined treatment, depending on the postoperative histological report, including radiation and chemotherapy

Task 53.

A patient came to the clinic with complaints of weakness, weight loss, and pain in the epigastric region. Considers himself sick for about 10 years. Recently the condition has worsened. The doctor ordered an endoscopic examination, which revealed a callous ulcer of the lesser curvature of the stomach. No biopsy was taken. After a course of conservative therapy for 6 weeks, the condition worsened, ascites appeared, with repeated FGDS, the ulcer along the lesser curvature increased in size, a biopsy revealed signet ring cell carcinoma, and an ultrasound of the liver showed signs of multiple focal liver lesions.

Questions:

What disease should the doctor think about when presenting the patient? What

was the mistake during the first gastroscopy?

What stage of the disease? What

should the treatment be? Sample

answer:

It was necessary to suspect stomach cancer.

The endoscopist did not perform a biopsy and made the diagnosis based on visual examination. TxNxM1, stage IV

If the patient's condition allows (ECOG 1-2) palliative chemotherapy, with ECOG 3-4 symptomatic treatment.

Task 54.

During the next fluorography, a round tumor-like formation in the right lung measuring 2.0 x 1.5 cm was discovered in a cement plant worker. The local doctor recommended observation and a control X-ray examination after a year. Questions:

Is the doctor right?

What disease should he suspect?

Which clinical group should this patient be classified into? Suggest an

examination plan

What types of biopsy can be used to morphologically confirm the diagnosis?

What treatment is indicated?

Sample answer:

No.

Peripheral lung cancer IA

X-ray of the lungs in 2 projections, X-ray CT of the chest, ultrasound or X-ray of the abdominal cavity, bronchoscopy, tumor biopsy.

CT-guided puncture biopsy, transbronchial biopsy during endoscopy, videothoracoscopy with biopsy, diagnostic thoracotomy.

Any focal formation in the lungs is subject to surgical treatment. If the diagnosis of lung cancer is confirmed, a lobectomy is performed.

Task 55.

The patient is 53 years old. Within six months, complaints of constipation appeared; notes periodic abdominal pain and bloating. I have never seen a doctor before. Ouestions:

What disease should you think about?

Which clinical group should this patient be classified into? What is the sequence of diagnostic measures.

What treatment method will be the main one when confirming your diagnostic version? What type of surgery should be performed?

Sample answer:

Cancer of the left half of the colon. IA

Physical examination, digital rectal examination, sigmoidoscopy, irrigoscopy, colonoscopy with morphological examination of biopsy material, ultrasound of the abdominal cavity and pelvis Surgical

Depending on the location, left-sided hemicolectomy or resection of the sigmoid colon.

Task 56.

During a routine examination, a digital examination of the rectum in a 56-year-old man revealed a small tumor on a wide stalk, at a distance of 4 cm from the sphincter. During rectoscopy, a diagnosis was made of type III rectal polyp.

Its endoscopic removal was performed.

Questions:

Which clinical group should this patient be classified into? Was the correct tactic used for this patient?

Is the scope of the operation sufficient?

Sample answer:

IB

It was necessary to verify the disease during rectoscopy, and then determine treatment tactics. If the diagnosis of polyp is confirmed, the volume is sufficient. In the case of rectal cancer, the extent of treatment will depend on the histological conclusion; preference should be given to organ-preserving methods

Task 57.

A 34-year-old woman consulted an endocrinologist with complaints of an enlarged thyroid gland. An ultrasound revealed a node in the right lobe, completely occupying it. The doctor recommended hormonal treatment and observation.

## Questions:

Analyze the doctor's tactics.

What disease would you suspect?

Which clinical group should this patient be classified into? What research method will be decisive for making a diagnosis? Is the treatment chosen correctly?

Sample answer:

Before prescribing treatment, it was necessary to obtain a conclusion that the patient did not have thyroid cancer.

Thyroid cancer IB

Puncture biopsy of a nodular formation in the thyroid gland.

Any nodular formation in the thyroid gland is subject to surgical treatment.

Task 58.

As a result of the initial examination, the patient was diagnosed with locally advanced gastric cancer with metastases to the liver.

Questions:

What stage of the disease?

What treatment is indicated for the patient?

Sample answer:

T4NxM1, stage IV

If the patient's condition allows (ECOG 1-2) palliative chemotherapy, with ECOG 3-4 symptomatic treatment.

Task 59.

As a result of the initial examination, the patient was diagnosed with locally advanced pancreatic cancer with metastases to the liver.

Questions:

What stage of the disease?

What treatment is indicated for the patient?

Sample answer:

T4NxM1, stage IV

If the patient's condition allows (ECOG 1-2) palliative chemotherapy, with ECOG 3-4 symptomatic treatment.

Task 60.

During a medical examination of a 58-year-old patient, ultrasound revealed a focal formation measuring 3x3 cm in the left lobe of the liver. The patient's general condition is quite satisfactory. Questions:

List the possible diseases hidden under the syndrome of focal liver formation.

What diagnostic measures will help clarify the diagnosis?

What are the possible treatment options depending on the established diagnosis? *Sample answer:* 

Metastasis from another organ affected by the tumor, primary benign or malignant liver tumor, parasitic cyst.

RCT with contrast enhancement, MRI with contrast enhancement, examination of organs from which metastasis occurs in the liver (stomach, colon, pancreas, spleen). Control for tumor markers. Serological reactions to parasites. Invasive methods: puncture biopsy, laparoscopy, laparotomy.

In case of metastatic liver damage, in some cases it is possible to perform a radical operation on the primary affected organ and resection of the liver segment with metastasis. In the presence of a primary liver tumor, resection of either a segment or lobe of the liver. In case of parasitic infection - segment resection or cystectomy.

Task 61.

A 69-year-old patient complained of an ulcerated skin lesion in the forehead area. According to the patient, the formation has existed for several years. Notes the slow growth of education. 4 months ago a small ulcer appeared in the area of the formation, which is gradually increasing. On examination: In the frontal region there is a superficial formation 1.5x2.5 cm, protruding above the surface of the skin with ulceration in the center.

The cervical lymph nodes are not enlarged.

Questions:

Formulate and justify the presumptive diagnosis.

What diseases need differential diagnosis? Name the necessary additional research.

Tell us about the principles of treatment.

Determine your tactics regarding the patient

Sample answer:

Taking into account the long history of the disease, the slow growth of the tumor, the characteristic macroscopic picture - the presence of a formation in the form of a papule with ulceration (nodular-ulcerative form), the absence of metastatic lesions of the lymph nodes, we can assume basal cell cancer of the skin of the forehead.

Differential diagnosis should be carried out with other skin diseases. Nodular-ulcerative form with keratoacanthoma, due to a very similar macroscopic picture. Flat superficial basal cell carcinoma must be differentiated from lupus erythematosus, lichen planus, seborrheic keratosis, and Bowen's disease. The pigmented form should be differentiated from melanoma, sclerodermiform tumor from scleroderma and psoriasis. It is necessary to differentiate from squamous cell skin cancer.

Dermatoscopy to obtain a clearer macroscopic picture of the tumor, scraping from the surface of the tumor with cytological examination.

The main treatment method for basal cell carcinoma is surgery. It is necessary to excise the tumor, retreating 5 mm from the visible edge. In case of difficulties caused mainly by the location of the tumor (face, bridge of the nose, eyelids, etc.), an alternative may be cryodestruction, laser destruction, photodynamic therapy. Radiation treatment (short-focus X-ray or DHT) is used as part of a combination treatment for advanced forms of the disease, as well as in the adjuvant mode to prevent relapses

Taking into account the localization and size of the process and the possibility of simultaneous excision of the tumor, as well as the presence of ulceration, which is a relative contraindication to radiation treatment, the patient may be offered surgical treatment.

Task 62.

A 71-year-old patient complained of skin formation in the area of the right shoulder and pain when raising the right upper limb. From the anamnesis it is known that education in this area has existed for 3 years. Appeared in the area of a burn received 10 years ago. In the last year, I have noticed a thickening of the formation and an increase in its size. On examination: on the skin of the right shoulder there is a 4x3 cm formation, slightly protruding above the surface of the skin, with the presence of hyperkeratosis along its periphery. There was a significant increase in the axillary lymph nodes on the right, which merged into a conglomerate up to 5 cm in diameter. On palpation they have a dense elastic consistency. Painless. Ouestions:

Formulate and justify the presumptive diagnosis. Name the

necessary additional research.

Determine your tactics regarding the patient

### Sample answer:

The patient probably has squamous cell carcinoma of the skin of the right shoulder with metastases to the axillary lymph nodes. This is indicated by anamnesis data indicating the slow growth of the tumor, its appearance against the background of a skin post-burn scar, the presence of enlarged regional lymph nodes similar to metastatic ones

Scraping from the surface of the tumor, ultrasound of the axillary, cervical and supraclavicular lymph nodes, puncture biopsy of enlarged axillary lymph nodes with cytological and histological examination. Ultrasound of the abdominal cavity, radiography of the OGK.

Considering that the patient has stage 3 squamous cell skin cancer, T2N2M0, treatment should be combined. The patient needs to undergo surgical treatment in the form of excision of the skin tumor of the right shoulder and right axillary lymphadenectomy. After healing of the skin wound, adjuvant radiation therapy is indicated.

Task 63.

Examination of a 37-year-old patient revealed enlargement of the inguinal lymph nodes on the left. Upon examination, on the skin of the anterior surface of the left leg there is a pigmented formation of irregular shape up to 12 mm, with an uneven surface and heterogeneous color. From the anamnesis: The patient notes the presence of this formation since childhood, but over the past six months he has noted an increase in size and a change in shape. Ouestions:

Formulate and justify the presumptive diagnosis. Name the

necessary additional research.

Tell us about the principles of treating the disease in this patient.

Sample answer:

Considering the presence of a pigmented formation on the skin of the anterior surface of the left leg, its increase in size and change in shape over the past 6 months, it can be assumed that the patient has melanoma of the skin of the left leg with possible metastases to the inguinal lymph nodes on the left.

Dermatoscopy, ultrasound of regional lymph nodes, abdominal cavity, chest x-ray, puncture biopsy of inguinal lymph nodes. Preoperativebiopsyprimary tumor with a needle or partial removal is contraindicated, in order to avoid the spread of melanoma. To identify distant metastases, X-ray is indicated.computer

tomography, MRI and PET - CT. To identify possible bone metastases, ascintigraphywith isotopephosphorus.

In the absence of distant metastases, excision of the melanoma of the skin of the left leg, Duquesne's operation on the left (inguinal lymphadenectomy), is indicated. Additional treatment may include immunotherapy, chemotherapy with the inclusion of targeted drugs in the treatment regimen

Task 64.

A 38-year-old patient had a pigmented formation on his right forearm removed in a cosmetology clinic 4 months ago. Currently, a compaction with black pigmentation measuring 4 mm has appeared in the area of the postoperative scar. Also in the axillary region on the right, axillary lymph nodes are identified, enlarged to 1.5 cm, with a dense elastic consistency. *Questions:* 

Formulate and justify the presumptive diagnosis. Name the necessary additional research.

Determine your tactics regarding the patient,

What mistakes were made during the treatment stages? *Sample answer:* 

Based on the appearance of a recurrence of a pigmented formation a short time after its removal, as well as the appearance of dense enlarged regional lymph nodes, one can think that the patient has a malignant pigmented formation - melanoma of the skin of the right forearm, a relapse after non-radical surgery and metastases to the axillary lymph nodes on the right. Ultrasound of regional lymph nodes (including sub- and supraclavicular, as well as scapular), ultrasound of the abdominal organs to exclude metastatic lesions of the liver, chest radiography to exclude metastatic lesions of the lungs, puncture biopsy of regional lymph nodes.

In the absence of distant metastases, wide excision of the tumor recurrence along with the postoperative scar, in combination with axillary lymphadenectomy on the right, is indicated. After surgery, taking into account the high probability of distant metastases, systemicchemo- and immunotherapy with the possible use of targeted drugs after immunohistochemical studies. The main mistake is removing pigmented skin formations outside a medical facility. This led to 1) insufficient radicalism of the intervention, since in beauty salons the removal of formations on the skin does not imply their wide excision along with the subcutaneous tissue to the aponeurosis, since this inevitably results in rough, cosmetically noticeable scars 2) lack of timely diagnosis of a malignant disease due to failure to perform morphological research

### Task 65.

A 35-year-old patient came to the clinic with complaints of changes in the color, shape and size of a pigmented neoplasm on the skin of the anterior abdominal wall. Upon examination, a neoplasm was revealed, 2.5 cm in size, dark brown, without vellus hair, with a rim of hyperemia around the circumference. Regional lymph nodes are not palpable. Questions: What is your diagnosis?

What diseases need differential diagnosis? Schedule an examination

When examining the patient, no data were obtained for regional and distant metastasis. Histological examination revealed the following conclusion: melanoma. Name the basic principles of treatment. Determine your tactics regarding the patient.

#### Sample answer:

In this case, it is necessary first of all to assume skin melanoma, taking into account changes in the color, shape and size of a long-existing pigmented nevus. The presence of areas of different colors and the absence of hair are also suspicious for melanoma.

Primarily with pigmented nevi of the skin, as well as with other malignant formations, such as pigmented basal cell carcinoma. Any type of nevi can imitate a tumor, since congenital nevi often have an asymmetrical shape and large size.

It is necessary to conduct an ultrasound of the axillary, supra-, subclavian, and inguinal lymph nodes, an ultrasound of the abdominal organs to exclude metastatic liver disease, and a chest x-ray to exclude metastatic lung disease. In the absence of signs of their damage, as well as the absence of data for distant metastasis, it is necessary to carry out a wide

surgical excision of an area of skin with pigment formation. The material must be sent for urgent histological examination.

The main treatment for early melanoma is surgical removal. Both for the primary tumor and for the treatment of relapses, sheath-fascial excision of the tumor is performed. The tumor is removed together with the adjacent area of apparently unchanged skin - depending on the stage at a distance of up to 2 - 3 cm, subcutaneous fat up toaponeurosis orfascia subjectmuscles (including in some cases with its removal) followed by plastic surgery. In case of metastatic damage to the lymph nodes, they are removed. A definitive diagnosis of melanoma can be made afterhistologicala study conducted after total removal of the tumor with sufficient inclusion of healthy tissue. The depth of germination is determined according to Clark, and Breslow andmitotic index.Radiation therapy- total focal dose - 40 - 45 GR.Chemotherapyused for generalization of the process, can be supplemented with immunotherapy and the use of targeted drugs. This patient needs to undergo surgical removal of the tumor. Since metastatic damage to regional lymph nodes has not been detected, we can limit ourselves to removing the tumor along with the adjacent area of apparently unchanged skin at a distance of up to 2 - 3 cm, subcutaneous fatty tissue

beforeaponeurosis orfasciasubjectmuscles. The final treatment tactics will be determined depending on the final histological conclusion on the depth of invasion according to Clark and Breslow.

#### Task 66

A 59-year-old man has had jaundice and decreased appetite for 2 months and has lost 15 kg. The examination revealed an enlarged liver, a sedentary formation was palpated in the epigastric region on the right above the navel. Over the past 2 weeks, he has been experiencing vomiting mixed with blood, nosebleeds, and hemorrhages on the torso.

#### Questions:

State the suspected diagnosis.

What additional studies need to be performed to clarify the diagnosis?

The patient's examination confirmed the diagnosis of a tumor of the head of the pancreas with obstructive jaundice syndrome. What volume of surgical intervention would be optimal at this stage?

## Sample answer:

Most likely the patient has a tumor of the head of the pancreas with compression of the common bile duct and the development of obstructive jaundice syndrome, as well as the possible development of duodenal stenosis

Ultrasound of the abdominal cavity to determine the location of the tumor, the nature of jaundice (with obstructive jaundice, dilation of the bile ducts is determined), fluoroscopy of the stomach to assess the presence of duodenal stenosis, fibrogastroduodenoscopy to assess the condition of the mucous membrane and possible biopsy of the tumor, general and biochemical blood tests, coagulogram.

It is necessary first of all to ensure the elimination of jaundice, as the most life-threatening condition. It would be optimal to perform a minimally invasive surgical operation to drain the bile ducts. It can be antegrade - percutaneous transhepatic cholangiostomy under X-ray and ultrasound control, or retrograde

- endoscopic retrograde cholangiostomy. Less preferable are methods involving laparoscopic or open surgical interventions - the formation of cholecystostomy, choledochostomy, biledigestive bypass anastomosis due to the increased risk of hemorrhagic complications.

### Task 67

Patient A. 56 years old. Complaints of weight loss, nausea, rarely vomiting, pain in the epigastric region, and jaundice of the skin has been noted over the past week. I lost 7 kg in 3 months. Objectively: peripheral lymph nodes are not enlarged, with percussion of the chest there is a clear pulmonary sound, auscultation: breathing is carried out in all parts. The abdomen is soft, accessible to palpation, and there is pain in the epigastric region. Endoscopy: the mucous membrane of the lower third of the stomach is infiltrated, bleeds during instrumental "palpation", infiltration extends to the 12th bulb. Histological conclusion: poorly differentiated adenocarcinoma. Ultrasound of the abdominal organs: in the liver in the area of the 7th segment there is a rounded formation, without clear boundaries, in the head of the pancreas a space-occupying formation of 4x3 cm is detected, the pancreas has a heterogeneous structure, is swollen, the retroperitoneal lymph nodes are not enlarged. CT scan of the abdominal organs: there is a space-occupying formation measuring 4x4 cm in the head of the pancreas, with signs of invasion of the stomach wall. Marker CA 19-9 753 U/ml.

Questions:

State the suspected diagnosis.

What are the proposed treatment options.

Sample answer:

The patient has advanced pancreatic head cancer with liver metastasis T4N1M1.

Radical surgical treatment is impossible. The operation of internal drainage of the bile ducts (possibly stenting of the bile ducts) and, due to the presence of tumor growth into the duodenum, the formation of a gastroenteroanastomosis are indicated. It is possible to perform high-frequency thermal ablation of liver metastases. After surgery, palliative multi-course chemotherapy is indicated.

Task 68.

Patient S., 60 years old. Complaints of dull pain in the upper abdomen, loss of appetite, yellowness of the skin. Over the past 4 months I have lost 5 kg. There is a history of hepatitis B. Objectively: the skin is yellow, the peripheral lymph nodes are not enlarged, the abdomen is soft and enlarged, the edge of the liver protrudes 4 cm from under the costal arch. According to an ultrasound examination of the abdominal cavity, at the border of the 4th and 5th segments of the liver, a space-occupying formation measuring 4x5 cm in diameter with unclear boundaries is determined, at the porta hepatis there are lymph nodes enlarged to 2.5 - 3.0 cm, and ascites. *Questions:* 

What studies need to be performed to clarify the diagnosis of the disease?

When examining the patient, no evidence was obtained for the presence of other tumors. The AFP marker level is 700 ng/ml. Histological conclusion after puncture biopsy: against the background of pre-cirrhotic changes, hepatocellular cancer is determined. Formulate the diagnosis and stage of the disease.

The council of the oncology clinic decided to carry out conservative therapy. What factors is it due to?

Which treatment method will be most promising for this patient? Determine

drug therapy options

Sample answer:

In a patient who has suffered from hepatitis B, a tumor is detected in the liver, taking into account damage to the lymph nodes and the presence of ascites, most likely of a malignant nature. The task of a diagnostic search is to determine the primary (liver cancer) or secondary (metastatic cancer) nature of the lesion. It is necessary to perform an X-ray computed tomography of the chest and abdominal cavity,

fibrogastroduodenoscopy, irrigoscopy or fibrocolonoscopy, determination of the level of alphafetoprotein in the blood, as well as puncture biopsy of a tumor in the liver under ultrasound guidance.

Based on histological examination data, confirmed by a high level of alpha-fetoprotein (against the background of cirrhosis, more than 400 ng/ml), the patient can be diagnosed with liver cancer. The tumor size is more than 2 cm, meets the T3 criterion. Metastatic lesions of the lymph nodes at the porta hepatis meet criterion N1. There are no distant metastases – criterion M0. Thus, the patient has stage IIIB disease.

Surgical treatment for the existing size and location of the tumor in the liver involves performing a right hemihepatectomy with removal of 70% of the organ. The presence of jaundice, ascites and signs of liver cirrhosis in this case are a contraindication to surgery.

Hepatocellular cancer is a tumor resistant to cytostatic therapy; radiation therapy is extremely risky and is rarely used. The main treatment method for liver cancer in this patient may be locoregional therapy through transarterial chemoembolization. This method is used in the 1st line of palliative treatment of liver cancer.

The only drug that significantly increases life expectancy in hepatocellular cancer is sorafenib (Nexavar), up to 800 mg/day. constantly, therapy with cytostatics is effective in no more than 20% of patients. For viral hepatitis B, treatment should be carried out with the use of antiviral drugs.

Task 69.

A 63-year-old patient complained of jaundice, pain in the epigastric region, weakness, weight loss, lack of appetite, and itchy skin. For 12 years he has been suffering from cholelithiasis, chronic cholecystitis with periodic exacerbations, manifested by attacks of pain in the right hypochondrium. She refused the proposed operation. In the last 6 months, pain has appeared in the epigastric region, weakness, and a loss of body weight of 5 kg has been noted. A month ago, jaundice appeared. During this entire period, she did not experience any attacks of pain. The chair is acholic. On examination: intense yellowness of the skin and sclera, the abdomen is soft, the liver is compacted, protrudes from under the edge of the costal arch by 6 cm, its edge is sharp. Moderate palpation pain is detected in the epigastrium and the projection of the gallbladder, which is not palpable.

## Questions:

What preliminary diagnosis can be made?

What diseases need a differential diagnosis? What preliminary examination should

be undertaken?

Ultrasound of the abdominal cavity revealed a hypoechoic formation measuring 3x3 cm in the head of the pancreas, a pronounced dilation of the extrahepatic bile ducts, and hyperbilirubinemia in the blood up to 450  $\mu$ mol/l. During FGDS, bile does not enter the duodenum. Determine the treatment tactics for this patient.

What studies need to be performed to determine further treatment tactics?

### Sample answer:

The gradual onset of the disease in a patient over 60 years old, pain in the epigastric region, weakness, weight loss, lack of appetite, and the appearance of jaundice indicate a high probability of a malignant tumor of the organs of the biliopancreaticoduodenal zone, most likely cancer of the head of the pancreas.

Due to the presence of jaundice syndrome, it is first necessary to differentiate it from cholelithiasis and choledocholithiasis, chronic diseases of the pancreas, and infectious hepatitis.

During the examination, first of all, it is necessary to establish the nature of the jaundice parenchymal or mechanical, since this is of decisive importance for determining treatment tactics. It is necessary to determine the level of bilirubin, transaminases, and alkaline phosphatase in the blood. Of the instrumental methods, the examination must begin with ultrasound, which is a screening method. An obligatory study is FGDS, during which tumors of the biliopancoatoduodenal zone of other localizations can be identified, a biopsy is performed, and the mechanical nature of jaundice is confirmed.

It is necessary to perform surgical intervention to eliminate obstructive jaundice syndrome, which is the most life-threatening for the patient. It would be optimal to perform a minimally invasive operation: either antegrade percutaneous transhepatic cholangiostomy under ultrasound and X-ray control, or retrograde transtumoral cholangiostomy.

It is necessary to perform an RCT or MRI of the abdominal cavity to clarify the extent of the pathological process, the presence of regional and distant metastases, determine the resectability of the tumor, and chest radiography. For morphological confirmation, it is necessary to perform a fine-needle biopsy of the tumor under ultrasound guidance, or, if possible, a similar study with FGDS.

Task 70.

A 72-year-old patient complains of pain in the rectal area, secretion of mucus and blood during defecation, and tenesmus. History: chronic proctitis.

Questions:

What disease can be suspected in this patient? What examination

methods should be used?

What treatment method will be the main one when confirming your diagnosis? *Sample answer:* 

An elderly patient with a long-standing chronic inflammatory disease has a clinical picture characteristic of rectal cancer.

Digital examination of the rectum (examination up to 6 - 8 cm), sigmoidoscopy (visualization up to 22 - 25 cm, possibility of biopsy), fibrocolonoscopy to exclude the primary multiple nature of the lesion, ultrasound or magnetic resonance imaging of the abdominal cavity and pelvis to clarify the prevalence tumors and determining the presence of enlarged and suspicious lymph nodes regarding their metastatic lesions, as well as possible metastases in the liver and retroperitoneal lymphatic collector, X-ray computed tomography of the chest organs. Surgical

Task 71.

A 60-year-old patient complains of weakness, loss of appetite, low-grade fever, unstable stool, and periodic pain in the right half of the abdomen. Survey data. In the mesogastrium on the right, a formation measuring 7x6 cm is palpated. It is inactive, slightly painful, and lumpy.

X-ray of the lungs without pathology.

ECG: sinus rhythm, 85 per minute, load on the right atrium. Clinical blood test:

hemoglobin - 60 g/l; erythrocytes - 4.0X1012/L; color index - 0.9; platelets -240x109/1; leukocytes - 8.2x109/l (band - 1%, segmented - 61%, eosinophils - 7%, lymphocytes - 8%, monocytes - 13%); ESR – 30 mm/h. Urinalysis: density - 1003 g/l, medium reaction - neutral, leukocytes - 0-3 in the field of view. EGDS without pathology. Ultrasound of the abdominal cavity: diffuse changes in the liver. *Questions:* What is the presumptive diagnosis? What needs to be done to clarify the diagnosis before starting treatment? What is this form of this pathology called? What is the main method of treating this pathology? Which operation will be considered minimally acceptable when choosing surgical treatment tactics? Sample answers: Cancer of the right half of the colon. Colonoscopy with biopsy Toxic-anemic form. Surgical. Right hemicolectomy.

Task 72.

Patient S., 64 years old, was taken by ambulance to the clinic with complaints of cramping abdominal pain after 15-20 minutes, repeated vomiting, and failure to pass stool and gas. Sick for 6 hours, no previous treatment. When examining decreased nutritional status, the abdomen is evenly distended, intestinal motility is increased and sonorous. A digital examination of the rectum reveals an empty ampoule. On a plain X-ray of the abdominal organs, Kloiber's cups are identified. Acute intestinal obstruction was diagnosed. Conservative therapy, including a siphon enema, had no effect. Emergency surgery performed. A tumor of the sigmoid colon measuring 6x6 cm was discovered, completely blocking its lumen, growing through the serous membrane, enlarged dense lymph nodes in the mesentery along the sigmoid artery, metastatic in appearance. The afferent segment of the colon and small intestine is sharply dilated, overflowing with intestinal contents. There is no effusion in the abdominal cavity. During the examination, no other pathology was revealed in the abdominal cavity.

Questions:

Determine the diagnosis of the disease, approximately the stage of the process. What type of surgery should be performed?

Justify the previous solution.

Sample answer:

Considering the presence of a stenosing tumor of the sigmoid colon, growing through its serous membrane, metastatic damage to regional lymph nodes, and the fact that most often distant metastases in colorectal cancer are localized in the liver, and it is not affected, a preliminary diagnosis can be made: stage III sigmoid colon cancer, T3N1-2M0 complicated by acute intestinal obstruction.

The optimal intervention against the background of acute intestinal obstruction would be to perform obstructive resection of the sigmoid colon (Hartmann operation). The efferent end of the intestine should be sutured and left in the abdominal cavity. Leading

the distended segment of the colon should be brought to the anterior abdominal wall in the form of a single-barreled anus and opened, releasing the intestinal contents. The operation of choice for sigmoid colon cancer is resection of the sigmoid colon with simultaneous formation of a colonic anastomosis. However, in the presented observation, the operation was performed against the background of acute intestinal obstruction and an overstretched adductor section of the colon. The formation of a one-stage anastomosis would be too dangerous due to the high probability of failure of the anastomosis sutures. Another option for the treatment of acute tumor obstruction in sigmoid colon cancer is the formation of a discharge colostomy to the proximal parts of the colon, however, the risk of tumor progression and its further metastasis remains. It is also possible to stent tumor stenosis with the determination of further treatment tactics after resolution of the obstruction.

### Task 73.

Patient K, 72 years old, applied to the oncology clinic with complaints of bloating and periodic attacks of cramping abdominal pain. Fibercolonoscopy with biopsy at the place of residence revealed a circular stenotic tumor of the splenic angle of the colon, histological conclusion: mucus-forming adenocarcinoma. Ultrasound of the abdominal cavity revealed 2 hyperechoic foci measuring up to 3 cm in the liver.

#### Questions:

What do you think should be the preliminary diagnosis? What additional studies need to be performed on this patient? Name the basic principles of treatment.

### Sample answer:

The patient has cancer of the splenic angle of the colon, T3-4NxM1 (liver), stage 4, complicated by chronic intestinal obstruction.

X-ray computed tomography of the chest, magnetic resonance imaging of the abdominal cavity and pelvis, to clarify the extent of the tumor in the colon and clarify the nature of liver damage, the presence of enlarged and suspicious lymph nodes in relation to their metastatic lesions, to confirm the metastatic nature of liver damage, it is desirable to perform puncture of lesions under ultrasound guidance, detection of KRAS mutations in the tumor

The patient has generalized colon cancer with potentially resectable synchronous liver metastases. If it is possible to remove metastases, an R0 operation (extended left-side hemicolectomy and liver resection) is indicated. Subsequently, adjuvant chemotherapy is required for 6 months. Perioperative and neoadjuvant chemotherapy is possible. Metastases in the liver may be influenced by other factors (cryodestruction, alcoholization, radiofrequency thermal ablation).

#### Task 74.

A 63-year-old patient was admitted to the surgical department as an emergency. Complains of cramping abdominal pain, gas retention and lack of stool for two days. There was a single vomiting. The pain appeared suddenly 4 hours ago. Before this, for 6 months, he periodically noted stool retention, and occasionally found blood in the stool. I didn't go to the doctors. There were no operations on the abdominal organs. Moderate condition. The tongue is a bit dry. The abdomen is swollen, soft on palpation, moderately painful in all parts, intestinal motility is increased. Shchetkin's symptom is negative. Pathological formations in the abdominal

the cavities cannot be palpated. On rectal examination, the ampulla is empty, the sphincter is atonic. During the siphon enema, it was possible to introduce about 700.0 ml of water into the rectum. With a survey X-ray of the abdominal cavity, Kloiber's cups are visible in the loops of the large and partially small intestine.

Questions:

What type of intestinal obstruction does the patient have and what is its most likely cause?

IN which position sick (vertical or horizontal) was carried outX-ray examination to identify Kloiber's cups?

What examination should be carried out to clarify the diagnosis and establish the localization of the process?

What conservative measures should be taken before surgery and for how long?

What surgical intervention should be performed in case of obstruction due to a tumor of the right half of the colon?

What surgical intervention should be performed in case of obstruction due to a tumor of the left half of the colon?

Sample answer:

Obstructive. Considering age, gradual development of the disease (intestinal complaints over six months), the presence of blood in the stool, constipation, the most likely cause is cancer.

In vertical. On radiographs taken in a horizontal position, Kloiber's cups are not visible.

Irrigoscopy. Colonoscopy is fraught with the risk of rupture of the altered intestinal wall during air insufflation.

The complex of decompressive measures includes siphon enemas, nasogastric decompression of the upper digestive tract, and antispasmodics. Measures are taken to combat intoxication, correct volemic disorders, normalize the functions of the cardiovascular system, liver and kidneys. If the obstruction is eliminated, there is no need for emergency surgery. If intensive therapy, carried out for 2-4, but not more than 6 hours, is ineffective, surgical intervention is performed.

In case of obstruction due to a tumor of the right half of the colon, right hemicolectomy is optimal.

In case of obstruction due to a tumor of the left half of the colon, the Hartmann operation is optimal.

Task 75.

A 55-year-old patient complains of dull pain in the right iliac region and low-grade fever. Ill for 2 months, there was no acute onset. In the iliac region there is a dense formation up to 6 cm in diameter with unclear contours. Limited mobility, painless. During irrigoscopy, there is a filling defect in the cecum.

*Questions:* Your diagnosis Treatment tactics Standard answer Cancer of the cecum. Surgical operation.

Task 75

The patient is 19 years old. Complaints of pain in the right shoulder, intense, disturbing at night, increased body temperature in the evenings to 38.5 -39.00C. Sick for

3 weeks. Objectively: the right shoulder has a normal configuration, the skin is not changed, upon palpation there is local pain in the middle third. The patient underwent radiography and radioisotope study of the skeletal bones: the tumor is located in the middle third of the humerus, extends up to 5 cm, extends beyond the cortical layer, the lesion of the periosteum is determined according to the type

"bulbous" periostitis. Increased levels of alkaline phosphatase and LDH were detected in the blood serum. An X-ray examination of the chest organs revealed multiple round shadows ranging in size from 1.5 to 3 cm in the parenchyma of the right lung.

Question: What is your preliminary diagnosis?

Answer: Based on the acute onset and rapid progression of the disease, pain syndrome, clinical picture of pronounced intoxication, the presence of radiological signs of a tumor in the diaphysis of the right shoulder, the radiological symptom of "bulbous" periostitis, determination of metastases in the right lung, increased levels of alkaline phosphatase and lactate dehydrogenase in the blood can be diagnose Ewing's sarcoma of the right shoulder with metastatic lesions of the right lung.

Question: What additional research needs to be done?

Answer: X-ray computed tomography of the chest, X-ray CT of the brain, ultrasound or magnetic resonance imaging of the abdominal cavity and pelvis, ultrasound of areas of regional metastasis, trephine biopsy or open biopsy of the tumor.

Question: What diseases need differential diagnosis? Answer: Differential diagnosis of Ewing's sarcoma is carried out between osteogenic sarcoma, eosinophilic granuloma,

osteoblastoclastoma, acute hematogenous osteomyelitis, bone forms of tuberculosis, bone metastases. The determining factors in making a diagnosis are the data of the morphological examination of the biopsy material.

Question: What stage of the disease does this patient have.

Answer: The patient has a tumor of less than 8 cm, which corresponds to the T1 criterion; in accordance with the biopsy data, there is no involvement of regional lymph nodes, which corresponds to the N0 criterion. According to RCT data, there is multiple metastatic lesions of the lungs - M1a. Thus, the patient has stage IVA (T1N0M1a).

Question: Suggest a treatment option

Answer: Ewing's sarcoma is a tumor that is sensitive to chemotherapy and radiation treatment. Modern treatment programs use preoperative and postoperative polychemotherapy, which also takes into account the histological response of the tumor to treatment, as well as<u>radial</u> therapy for the lesion in high doses (including for distant metastases). Surgical treatment involves radical removal of the tumor if possible, while surgery in combination with intensive chemotherapy and radiation therapy significantly reduces the risk of local recurrence.

A decrease in the incidence of local recurrence is observed even after non-radical operations. Preference should be given to organ-preserving operations.

PC9

# **Closed tasks**

Task 1. Instructions: Select one correct answer. Contraindication for the use of anthracyclines is

1) dissemination of the tumor process

2) cardiovascular failure

3) increase in body temperature over 37.5C

4) absence of one kidney

Response standard: 2) cardiovascular failure

Task 2. Instructions: Choose one correct answer
The main criteria for the effectiveness of treatment in oncology include
1) Karnofsky scale and ECOG index
2) duration of temporary and permanent disability
3) survival, quality of life
4) Mann-Whitney test *Response standard*: 3) survival, quality of life

Task 3. Instructions: Choose one correct answer.
An independent method of radical treatment of thyroid cancer is
1) immunotherapy
2) chemo-hormonal
3) ray
4) surgical *Response standard*: 4) surgical

Task 4. Instructions: Choose one correct answer.

Combined surgery in oncology means tumor removal

1) together with a regional lymphatic barrier and simultaneous surgery for any other nononcological disease

2) within healthy tissues along with the regional lymphatic barrier and all accessible lymph nodes and fiber in the surgical area

3) with resection (removal) of another organ involved in the tumor process

4) with resection (removal) of another organ involved in the tumor process

5) within healthy tissues along with the regional lymphatic barrier

Response standard: 3) with resection (removal) of another organ involved in the tumor process

Task 5. Instructions: Choose one correct answer.

During radiotherapy of cancer, the incidence of local radiation reactions is most influenced by: 1) elderly age

2) presence of diabetes mellitus

3) history of allergic diseases

4) irradiation regimen and dose

Response standard: 4) irradiation mode and dose

Task 6. Instructions: Choose one correct answer. In radiation

therapy for basal cell carcinoma, the following is most often used:

1) close focus x-ray therapy

2) irradiation at electron accelerators

3) photodynamic therapy

4) brachytherapy

*Response standard*: 1) close-focus radiotherapy

Task 7. Instructions: Choose one correct answer. Antitumor drugs of the antimetabolite group include: metronidazole;
 gemcitabine;
 oxaliplatin
 paclitaxel
 *Response standard*: 2) gemcitabine;

Task 8. Instructions: Choose one correct answer.
Which group of drugs used for breast cancer does tamoxifen belong to?
1) antienzyme
2) antihormonal
3) cytostatics;
4) targeted *Response standard*: 2) antihormonal

Task 9. Instructions: Choose one correct answer.

- IN case resectable tumors inferior ampullary department straight intestines, involving the sphincter is shown:
- 1) Hartmann's operation.
- 2) anterior rectal resection

3) abdominoperineal extirpation of the rectum

4) abdominoperineal extirpation of the rectum

Response standard: 4) abdominoperineal extirpation of the rectum

Task 10. Instructions: Choose one correct answer.

The indication for the use of chemotherapy as an independent method for stomach cancer is

- 1) cancer recurrence
- 2) early cancer

3) fast growing tumor

4) inoperable tumor.

Response standard: 4) inoperable tumor

Task 11. Instructions: Choose one correct answer.

When performing cytostatic therapy on an outpatient basis, it is necessary to carry out

1) weekly examination by a hematologist

- 2) regular urine tests
- 3) regular blood tests
- 4) prophylactic antibiotics

Response standard: 3) regular blood tests

Task 12. Instructions: Choose one correct answer.

According to WHO recommendations, the full effect (complete remission) is understood as 1) complete tumor resorption

2) complete disappearance of all tumor foci for a period of 4 weeks or more

3) complete resorption of the tumor for a period of at least 8 weeks

4) reduction in tumor size by more than 50%

Response standard: 2) complete disappearance of all tumor foci for a period of 4 weeks or more

Task 13. Instructions: Choose one correct answer. Identification

of hormonal receptors in tumors is important

1) for typing the histological nature of the tumor
2) to determine the level of hormones in the body

3) to determine the advisability of hormone therapy

4) to determine the feasibility of immunotherapy

Response standard: to determine the advisability of hormone therapy

Task 14. Instructions: Choose one correct answer. Radiation

reactions in the treatment of cancer include

1) fibrosis

2) radiation ulcer

3) pneumosclerosis

4) skin erythema

Response standard: 4) skin erythema

Task 15. Instructions: Choose one correct answer.

The mechanism of action of antimetabolites during cytostatic chemotherapy is

1) in DNA alkylation reaction

2) in violation of the synthesis of purines and thymidic acid

3) in suppressing the synthesis of nucleic acids at the level of the DNA matrix

4) in the denaturation of tubulin - a microtubule protein

Response standard: 2) in violation of the synthesis of purines and thymidic acid

Task 16. Instructions: Choose one correct answer. The mechanism of

action of antitumor antibiotics is

1) in DNA alkylation reaction

2) in violation of the synthesis of purines and thymidic acid

3) in suppressing the synthesis of nucleic acids at the level of the DNA matrix

4) in the denaturation of tubulin - a microtubule protein

Response standard: 3) in suppressing the synthesis of nucleic acids at the level of the DNA matrix

Task 17. Instructions: Choose one correct answer.

Most often medicinal therapy Maybe be considered independenthighly effective method for treating

1) kidney cancer

2) small cell lung cancer

3) stomach cancer

4) stomach cancer

Response standard: 2) small cell lung cancer

Task 18. Instructions: Choose one correct answer.

In chemotherapy treatment of breast cancer, the use of anthracyclines is contraindicated:

1) dissemination of the tumor process

2) cardiovascular failure

3) diabetes

4) hypercoagulability

Response standard: 2) cardiovascular failure

Task 19. Instructions: Choose one correct answer.

According to WHO recommendations, partial effect (partial remission) during chemotherapy for cancer is understood as:

1) tumor reduction, improvement of the patient's condition

2) reduction in tumor size by more than 25%

3) reduction of all tumor lesions by 50% or more in the absence of other signs of disease progression

4) reduction in tumor size by 50% or more for at least 2 months Standard answer: 3) reduction of all tumor foci by 50% or more in the absence of other signs of disease progression

Task 20. Instructions: Choose one correct answer.

The main type of toxicity of platinum drugs of the first generation is:

1) nephro- and neurotoxicity

2) cardiotoxicity

3) dermatological toxicity

4) dermatological toxicity

Response standard: 1) nephro- and neurotoxicity

Task 21. Instructions: Choose one correct answer.

The main functional indicator of anthracycline cardiotoxicity is:

1) change in the T wave on the electrocardiogram

2) increase in PQ interval on the electrocardiogram

3) sinus tachycardia

4) decrease in myocardial contractile function

Response standard: 4) decrease in myocardial contractile function

Task 22. Instructions: Choose one correct answer.

Antiandrogens are used

1) for kidney cancer

2) for skin melanoma

3) for lymphosarcoma

4) for prostate cancer

Response standard: 4) for prostate cancer

Task 23. Instructions: Choose one correct answer. Common

complications of chemotherapy do not include:

1) anorexia

2) diarrhea

3) alopecia

4) osteoporosis

Response standard: 4) osteoporosis

Task 24. Instructions: Choose one correct answer.

Chemotherapy is most effective:

1) for papillary thyroid cancer

2) for follicular thyroid cancer

3) for undifferentiated (anaplastic) thyroid cancer

4) the effectiveness of chemotherapy does not depend on the morphological structure of thyroid cancer

Response standard: 3) with undifferentiated (anaplastic) thyroid cancer

Task 25. Instructions: Choose one correct answer.

It is most effective in mono mode in the treatment of small cell lung cancer.

cyclophosphamide
methotrexate
vincristine
docetaxel
*Response standard*: 4) docetaxel

# Open type tasks

Exercise 1. should Rehabilitation sick malignant start off tumor Sample answer: from the moment of diagnosis Task 2. For early \_\_\_\_ Availability clinically cancer stomach expressed symptoms Sample answer: not typical Task 3. analgesics according to WHO recommendations for Purpose incurable cancers belong to the third stage of treatment of chronic painsyndrome Sample answer: opioid Task 4. The main operational document drawn up for a cancer patient by a doctor - the oncologist of the clinic is Reference answer: dispensary observations sick Control map withmalignant neoplasm (form No. 030-6/U) Task 5. The most commonly used targeted therapy for breast cancer is\_. Sample answer: trastuzumab (Herceptin) Task 6. The choice of treatment method for a cancer patient is determined by a council of doctors consisting of: Sample answer: a surgeon, a radiologist and a chemotherapy doctor. Task 7. Neoadjuvant therapy in the treatment of malignant tumors is the use of cytostatics in period Sample answer: preoperative Task 8. "Notification of a patient newly diagnosed with cancer or another oncological disease" must be completed the doctor who made the diagnosis Sample answer: any Task 9.

Sample answer: inoperable

Task 10.

Leukomax, filgramostin, Neupogen arecolony-stimulating for

drugs,used

Sample answer: leukopenia andagranulocytosis

### Task 11.

A patient is diagnosed with skin cancer at the clinic. The polyclinic oncologist independently prescribed treatment and determined the observation period. *Questions:* 

 $\widetilde{\text{Did}}$  the oncologist at the clinic do the right thing?

How is the treatment strategy for a cancer patient determined?

What responsibilities should a clinic oncologist have in this case?

Sample answer:

No. After verification of the disease, the patient must be sent to an oncology clinic Treatment tactics are determined by the oncology council.

The polyclinic oncologist carries out dynamic follow-up monitoring of the patient after the end of treatment.

## Task 12.

A 64-year-old man complained of dull pain in the epigastric region, retention of solid food in the esophagus at the level of the xiphoid process of the sternum, progressive weakness, weight loss, and loss of appetite. History of the disease. He has been suffering from chronic gastritis for 20 years. The disease manifested itself as heartburn, bitter belching due to an error in diet. Three months ago, for no apparent reason, a dull pain appeared in the epigastric region, occurring after eating. After a month, the pain became constant, but remained mild. I consulted a therapist. The doctor diagnosed an exacerbation of chronic gastritis and prescribed a diet and medication. There was no effect from the treatment. Two months ago, solid food began to linger in the area of the xiphoid process. The patient began to lose weight, his appetite worsened, and increasing weakness appeared. Anamnesis of life. He has been smoking since he was 15 years old. Abuses alcohol intake, often consumes marinades and home-made smoked meats. Loves salty food.

Objectively. The food is satisfactory. The abdomen is soft, upon palpation there is slight pain in the epigastric region, no tumor-like formations are palpable.

Questions:

What should the therapist do when the patient first contacts him?

What disease can be thought of based on the available clinical data? What diseases need differential diagnosis?

Which clinical group of follow-up can this patient be included in? What type of treatment is the main one?

Sample answer:

Refer the patient for endoscopic or x-ray examination Gastric cancer

Exacerbation of chronic gastritis or gastric ulcer, esophageal achalasia, gastroesophageal reflux disease (GERD), gastric polyps

Ia Surgical

#### Task 13.

A 60-year-old patient complains of a feeling of heaviness and pain in the epigastric region after eating, nausea, heartburn, periodic vomiting of food, weakness, progressive weight loss, and loss of appetite. Ill for two months. Initially, pain appeared in the epigastric region to the right of the midline, dull and aching. After 2 weeks, I began to feel a full stomach after eating, nausea, and vomiting in the afternoon, which brought relief. In the vomit I found poorly digested food eaten in the morning. Later weakness set in, appetite worsened, and I began to lose weight. Weight loss in 2 months. amounted to 10 kg. For 10 years he has been suffering from chronic gastritis, which was manifested by heartburn, bitter belching and aching diffuse pain in the epigastric region after eating. These symptoms occurred rarely and were provoked by alcohol intake and poor diet. They were controlled by diet and drinking soda. He underwent endoscopic examination twice. Conclusion: chronic atrophic gastritis. Heredity is not burdened. Objectively: Nutrition is reduced. The abdomen is painless; a splashing sound is detected in the epigastric region. The liver is not enlarged. No tumor-like formations are palpable in the abdominal cavity. *Questions* 

Based on this description, which disease seems most likely?

What minimal instrumental studies need to be ordered to establish a diagnosis? Description of the radiologist (gastroscopy): The stomach on an empty stomach contains a large amount of mucus and is hypotonic. The antrum is circularly narrowed, the contours are uneven, undermined, peristalsis is not visible, evacuation from the stomach is slow. What complication occurs in this patient, in what form of tumor growth is such an X-ray picture possible? Upon additional examination, distant metastases were discovered in the patient. To which organ does gastric cancer most often metastasize hematogenously?

What treatment does this patient need?

Sample answer:

Stomach cancer

X-ray of the esophagus and stomach, FGDS with biopsy, ultrasound or X-ray of the abdominal cavity and pelvis, X-ray of the chest organs, ultrasound of the cervical lymph nodes Subcompensated stenosis. Infiltrative form. Liver

Symptomatic surgery - formation of gastroenteroanastomosis, then palliative chemotherapy

Task 14.

Patient N., 65 years old, was admitted to the clinic with complaints of weight loss, weakness, periodic epigastric pain, change in the color of stool (occasionally black). The patient underwent an X-ray examination of the stomach and fibrogastroscopy with biopsy. On the lesser curvature of the stomach, a formation measuring 6x4 cm with ridge-like edges and a sinking central part, covered with a gray coating, was found. A biopsy was taken, and histological examination of the obtained material revealed a picture of cancer. Further examination revealed no evidence of distant metastases.

### Questions:

1. Name the macroscopic form of stomach cancer.

2. Name what height in relation to the lumen of the stomach is typical for her.

3. What histological type of cancer is most often found in this form of gastric cancer?

4. What extent of surgical intervention is indicated for the patient?

5. Where else can you look for lymphogenous metastases of stomach cancer, what is the peculiarity of lymphogenous metastasis of this tumor?

Sample answer: Infiltrative-ulcerative form of gastric cancer Endophytic growth

Adenocarcinoma

Gastrectomy

Regional lymph nodes of the II and III orders (along the celiac trunk and its branches, paraesophageal, splenic hilar nodes, parapancreatic, parapyloric, etc. A feature is ortho- and retrograde lymphogenous metastasis and the possibility of the appearance of distant retrograde lymphogenous metastases

Task 15.

In the central part of the gland, the tumor is 7x7 cm, the nipple is flattened, the areola is infiltrated, skin swelling is of the "lemon peel" type. What disease can be suspected? Determine the clinical form of the disease Determine the volume of surgical intervention Standard answer: Breast cancer Nodular form Mastectomy

Task 16.

Patient Zh., 49 years old, consulted a doctor with complaints of loss of appetite, weakness, weight loss, frequent epigastric pain, constant nausea, and periodic vomiting of undigested food. The listed symptoms gradually increase over 2 years; fibrogastroscopic examination with biopsies was performed 3 times.

Histological examination shows chronic superficial gastritis. Over the past 2 months, he has noted a progressive deterioration in his condition; he has lost up to 15 kg in weight. On examination, nutrition was reduced. The abdomen is moderately painful in the epigastric region. The liver is not enlarged. No tumor-like formations are palpable in the abdominal cavity. A dense, painless, inactive formation in the supraclavicular region on the left, 3.5 x 3 cm (lymph node), is determined. X-ray examination revealed a thickened, inextensible stomach in the form of a "skin bag".

Gastroscopy revealed thickening of the folds of the gastric mucosa in all parts; a biopsy was taken, which revealed signs of cancer.

Questions:

1. Name the macroscopic form of stomach cancer.

2. Name what height in relation to the lumen of the stomach is typical for her.

3. What histological type (or types) of cancer is most often found in this form of gastric cancer?

4. What do the changes that are found in the left supraclavicular lymph node mean?

5. What stage of the disease and why?

What treatment is indicated for the

patient? Standard answer:

Total gastric cancer, diffuse-infiltrative form (linitis plastica). Endophytic growth

Tubular adenocarcinoma or signet ring cell carcinoma

These changes are characteristic of retrograde distant lymphogenous metastasis of gastric cancer (Virchow's metastasis occurs)

Stage IV of the disease (TNM criterion – M1) Palliative chemotherapy

### Task 17

A 70-year-old woman suffered a myocardial infarction 4 years ago. During a follow-up examination with a cardiologist, she complained of a feeling of rapid satiety and a feeling of fullness in the stomach after eating small portions of food. She had no other gastric or general somatic complaints. These symptoms arose for no apparent reason 2 months ago. No dynamics were observed during this period. The doctor referred the patient for an X-ray examination and FGS.

Questions:

Is it justified to refer a patient for these studies in the presence of such mild symptoms? What minimum tests should be ordered when making a diagnosis? Does the patient need special treatment when the diagnosis of gastric cancer is confirmed?

What treatment is indicated for this patient?

Sample answer:

Justified. A feeling of rapid satiety and fullness in the stomach after eating small portions of food indicates a loss of elasticity of the stomach wall or the presence of a formation that reduces its lumen. In older people, cancer should be suspected. Low severity of clinical manifestations can be observed even with tumors of significant size. The absence of positive dynamics over 2 months is also characteristic of cancer.

X-ray of the esophagus and stomach, FGDS with biopsy, ultrasound or X-ray CT of the abdominal cavity and pelvis, X-ray of the chest organs, ultrasound of the cervical lymph nodes, blood test for tumor markers.

The patient needs special treatment.

In the absence of distant metastases, the radical method of treating stomach cancer is surgery. Old age and a previous myocardial infarction in the absence of disorders of the cardiovascular system are not an obstacle to surgery.

Task 18.

A 14-year-old girl, after an injury 4 months ago, developed swelling in the upper third of her lower leg and pain mainly at night. She received physiotherapeutic treatment. The compaction slowly increases. General condition is satisfactory. Body temperature is normal. In the upper third of the right leg there is a dense, slightly painful tumor measuring  $7 \times 6$  cm, not removed from the bone, without clear contours, the skin over it is not changed. Restricted mobility in the knee joint. Regional (inguinal) lymph nodes are not enlarged.

Questions:

1. What is the presumptive diagnosis?

2. List the examination methods and their order.

3. What are the treatment tactics?

Sample answer:

1. The clinical picture corresponds to osteogenic sarcoma of the upper third of the right tibia.

2. It is necessary to perform an x-ray of the lower leg, knee joint and thigh in 2 projections, x-ray of the lungs, general and biochemical blood tests and a blood test

for neuron-specific enolase, general clinical examination (ECG, coagulogram, general urinalysis), ultrasound of the affected area, inguinal lymph nodes and ABP, CT/MRI of the leg, trepanobiopsy of the tumor.

3. Treatment: in the absence of distant metastases - neoadjuvant polychemotherapy, then (if possible) - organ-preserving surgery with endoprosthetics

#### Task 19.

A 9-year-old child had pain in the calf muscle of the left leg 1 month after the injury. A demarcated swelling is clearly visible on the lower leg. Low-grade fever.

Post-traumatic infiltrate was diagnosed. Physiotherapy was prescribed.

## Questions:

What disease can be suspected in this case?

What studies need to be carried out to clarify the diagnosis? Have the

treatment tactics been chosen correctly?

Sample answer:

Soft tissue sarcoma of the left leg

It is necessary to perform an X-ray of the lower leg and knee joint and thigh in 2 projections, X-ray of the lungs, ultrasound of the affected area, inguinal lymph nodes and OB, CT/MRI of the lower leg, and puncture biopsy of the tumor.

No, when prescribing treatment, the doctor did not show oncological caution; in case of cancer, physical treatment can lead to very rapid progression of the disease and early and extensive metastasis

#### Task 20.

A 14-year-old boy has been complaining for two months of pain in the right knee joint, which has become intense over the past two weeks. The child does not sleep well at night due to pain, his appetite has worsened, and he has lost weight. History: the first child in the family, born full-term, grew and developed according to his age.

All vaccinations have been completed and there is no allergy history. Family history: parents are healthy, paternal grandmother died of rectal cancer. Examination: the skin is pale, the child is malnourished. Heart sounds are muffled, heart rate 100 beats/min, blood pressure 110/70 mm Hg. Breathing in the lungs is harsh, there is no wheezing. The tongue is moist, the abdomen is soft, painless on palpation, the liver is along the edge of the costal arch, the spleen is not palpable. Locally: there is swelling in the lower third of the right thigh, the volume is increased by 4 cm compared to the healthy thigh, the venous pattern is enhanced, movements in the knee joint are limited. On the radiograph: a lytic lesion in the lower third of the femur with indistinct contours, Codman's triangle and the formation of bone substance along the vessels. General blood test: Hb 75g/l, erythrocytes 3.1.1012/l, color index 0.6; leukocytes 9.8.109/l; p/o 5%; s/y 63%; e 3%; lymphocytes 21%; monocytes 8%; ESR 54mm/hour. General urine analysis: straw-yellow color, transparent, pH 6.0; specific weight 1023, protein negative, sugar negative, leukocytes 2-3 per cell, red blood cells

0. Biochemical analysis: total protein 55g/l, albumin 50%, globulins:  $\alpha 1$  3%,  $\alpha 2$  13%,  $\beta$  12%,  $\gamma$  22%; alkaline phosphatase 280 units/l, ALT 23 units, AST 28 units, amylase 30 units/l, thymol test 4 units, total bilirubin 16 µmol/l, bound 2 µmol/l, direct reaction. Ultrasound of the abdominal organs: the liver is not enlarged, the parenchyma is homogeneous, echogenicity is normal, the liver vessels are not dilated. X-ray of the lungs - pulmonary fields without focal shadows.

#### Questions:

Justify the diagnosis.

Determine the stage of the disease.

Which diagnostic method will be decisive?

Make a treatment plan.

Sample answer:

Diagnosis: osteogenic sarcoma of the distal metaphysis of the right femur, Stage IIB Trephine biopsy with histological examination

Treatment tactics: preoperative chemotherapy, surgical treatment (amputation at the level of the hip), postoperative courses of chemotherapy.

### Task 21.

A mother and her 6-month-old baby are visiting a pediatrician at a clinic. Complaints about the presence of a tumor-like formation in the chest area on the left. From the anamnesis it is known that the child has had this formation since birth and slowly increases with age. Over the past two weeks it has begun to progressively increase in size. The somatic status is not disturbed. Locally: on the anterolateral surface of the chest on the left at the level of the III-IV ribs, a tumor-like formation measuring 5.0x6.0 cm, purple-cyanotic color, grows into the skin, protrudes above it by 0.5 cm, the surface is velvety, the formation is painless on palpation, When pressed, it turns pale; when the finger is removed, the color is restored again. Blood test: red blood cells 3.8.1012/l, Hb 132g/l, leukocytes 6.8.109/l. Urinalysis: straw-yellow color, specific gravity 1016, negative sugar, negative protein, squamous epithelium, single in p/z.

Questions:

Make a diagnosis. What is

the pediatrician's tactics?

What is this disease? How is this disease

differentiated?

Provide the necessary additional research and treatment plan for this pathology.

Sample answer:

Cavernous hemangioma of the chest area on the left.

A consultation with a pediatric surgeon is necessary to decide on treatment tactics. Hemangioma is a benign vascular tumor, consisting of many cavities of different sizes and shapes, lined with a single layer of endothelial cells.

Differentiate with other types of hemangiomas (capillary, branched, combined, mixed), congenital vascular spots.

Additional research methods: chest ultrasound, hemostasis study, group and Rh affiliation. Treatment plan: surgical treatment - excision of the tumor within healthy tissue.

Task 22.

Boy, 11 years old. Complaints of pain in the right half of the chest, swelling above the right collarbone, periodic increases in temperature up to 38°C. History: after suffering from a sore throat, pain appeared in the chest, two weeks later - swelling above the collarbone. In the blood test there are inflammatory changes. Objectively: swelling without clear boundaries above the right collarbone, painful on palpation. X-rays of the chest in two projections show a large homogeneous rounded node occupying the upper third of the right hemithorax, the pulmonary pattern is enhanced under the node.

An X-ray of the chest in a direct projection shows small focal mixed destruction in the first right rib along its entire length with a linear periosteal reaction along the upper contour of the rib. *Questions:* 

What is your conclusion? Defining diagnostic method? Possible treatment options? Sample answer: Ewing's sarcoma of the first right rib. Prepanbiopsy with histological examination Treatment is multicomponent chemoradiotherapy. If possible, radical removal of the tumor (including bone and soft tissue component).

### Task 23.

Patient K., 67. complains of dull pain in the lower abdomen, periodically accompanied by bloating, rumbling in the abdomen, unstable stools, alternating constipation and diarrhea, an admixture of mucus and blood in the stool. These complaints are noted for 6 months. Recently I began to feel weakness, malaise, increased fatigue, and slight weight loss. Temperature in the evenings  $-37.2 - 37.5^{\circ}$ C.

Questions:

What disease can be suspected?

In which part of the colon can the tumor be localized?

What laboratory and instrumental studies need to be performed? Determine treatment tactics for a colon tumor without radiological signs of colonic obstruction and distant metastasis. Determine the principles of treatment after surgery.

Sample answer:

A colon tumor may be suspected.

In the sigmoid colon or rectosigmoid colon.

General blood test, general urine test, blood test for tumor markers, irrigoscopy, fibrocolonoscopy with biopsy, ultrasound or X-ray CT of the abdominal cavity and pelvis, chest radiography In the absence of data for distant metastasis, surgical treatment is indicated - resection of the sigmoid colon

Depends on the stage of the disease. In all cases T>2 and N+, adjuvant PCT is indicated; in the T2N0M0 situation, PCT is performed after the result of a genetic analysis for microsatellite instability.

### Task 24.

The patient, 49 years old, was treated in the therapeutic department for iron deficiency anemia and was discharged with some improvement. For the last 2 months, he has been experiencing headaches, severe weakness, lack of appetite, decreased performance, lost weight up to 10 kg, and periodically notices black stool. Objectively: the skin is pale, the abdomen is soft, painless on superficial palpation; on deep palpation, a tumor-like formation measuring 6x4 cm is detected in the right hypochondrium, somewhat painful, lumpy, without clear contours, moderately displaced.

There are no symptoms of peritoneal irritation.

Questions:

Make a preliminary diagnosis?

Determine the tactics of treating the patient and the expected scope of the

operation. Determine the principles of treatment after surgery?

Sample answer:

Tumor of the hepatic angle of the colon.

If there is no evidence of distant metastasis, surgical treatment is indicated - right hemicolectomy. Depends on the stage of the disease. In all cases T>2 and N+, adjuvant PCT is indicated; in the T2N0M0 situation, PCT is performed after the result of a genetic analysis for microsatellite instability.

Task 25.

Patient K., 65 years old, consulted a doctor with complaints of aching pain in the left hypochondrium and a feeling of heaviness. Recently he has noticed a decrease in appetite, over the past month he has lost about 5 kg in weight, constipation has appeared, and stool retention occurs for 2-3 days.

Periodically there is bloating. The patient has increased nutrition, the skin and visible mucous membranes are of normal color. Pulse 78 beats. per minute Blood pressure 140/80 mm Hg. Art. Vesicular breathing is observed over the pulmonary fields. The tongue is coated with a whitish coating. The abdomen is soft, moderately painful in the left hypochondrium, and on deep palpation a slow-moving tumor-like formation is not clearly visible. There are no symptoms of peritoneal irritation. During a digital examination of the rectum, the sphincter is toned, the feces on the glove are of a normal color, pathological formations are not identified. Diuresis is sufficient.

Questions:

Make a preliminary diagnosis.

What research methods should be used to make a final diagnosis?

What is the minimum extent of surgery indicated for uncomplicated cancer of the splenic angle of the colon?

Determine the principles of treatment after surgery?

Sample answer:

Cancer of the splenic angle of the colon.

General blood test, general urine test, blood test for tumor markers, irrigoscopy, fibrocolonoscopy with biopsy, ultrasound or X-ray CT of the abdominal cavity and pelvis, chest radiography Left-sided hemicolectomy.

Depends on the stage of the disease. In all cases T>2 and N+, adjuvant PCT is indicated; in the T2N0M0 situation, PCT is performed after the result of a genetic analysis for microsatellite instability.

Task 26.

Patient K., 42 years old, complains of the release of blood and mucus at the beginning of defecation, periodic constipation, followed by diarrhea. When examining per rectum at a distance of 7 - 8 cm from the anus, the lower edge of the tumor-like formation is determined to be dense, lumpy, examination is moderately painful, the tumor-like formation occupies up to 2/3 of the semicircle of the rectum. Questions:

Make a preliminary diagnosis.

What types of operations are used for this pathology?

During examination, the patient was found to have enlarged paratumorous lymph nodes in the mesorectal tissue. What should be the treatment plan?

Sample answer:

Rectal cancer

Anterior resection of the rectum (including obstructive), abdominal-anal resection of the rectum, abdominoperineal extirpation of the rectum.

In this patient, combined treatment is indicated, surgery in combination with chemoradiotherapy. It is optimal to carry out a neoadvant course of chemoradiotherapy followed by surgery and adjuvant chemotherapy for 6 months.

### Task 27.

The patient, 52 years old, has lost 7 kg over the past two months. Two weeks ago, skin itching, yellowness of the skin and sclera, and dark urine appeared. The pain syndrome is not expressed.

Objectively: yellowish skin with an earthy tint. A dense, smooth, spherical, painless formation is palpated in the right hypochondrium. The liver protrudes 3 cm from under the edge of the costal arch, its edge is smooth, its surface is even. Questions: What disease can be suspected? What complication does the patient have? What is the name of the symptom identified in the patient? Determine possible treatment option *Sample answer:* Cancer of the head of the pancreas Obstructive jaundice syndrome Courvoisier's sign External drainage of the bile ducts, preferably percutaneous transhepatic cholangiostomy under ultrasound guidance, further treatment tactics will be determined depending on the examination results.

Task 28.

Patient Ya., 59 years old, has had jaundice and decreased appetite for 2 months, and has lost 15 kg. The examination revealed an enlarged liver, a sedentary formation was palpated in the epigastric region on the right above the navel. Over the past 2 weeks, he has noted vomiting mixed with blood, nosebleeds, and the appearance of hemorrhages on the torso. *Questions:* 

What diagnosis can be made in this case?

What diseases should this pathology be differentiated from? Determine the plan for examining the patient

What should be the treatment tactics?

Sample answer:

Pancreatic head cancer

With other tumors of the biliopancreatoduodenal zone, colon and stomach cancer Ultrasound of the abdominal cavity, FGDS

The first stage of treatment should be external drainage of the bile ducts (optimally percutaneous transhepatic cholangiostomy under ultrasound guidance)

Task 29.

Patient G., 60 years old, was hospitalized at the clinic for examination due to pain in the right hypochondrium and signs of jaundice. History of viral hepatitis B, complicated by liver cirrhosis. A physical examination revealed an enlarged, painful and lumpy liver protruding from under the costal arch.

Abelev-Tatarinov's reaction is sharply positive. Ultrasound of the abdominal cavity revealed a nodular formation in the right lobe of the liver measuring 15x12 cm, involving the IV segment, 2 nodes in the left lobe of the liver measuring 3x2 and 2x2 cm, ascites up to 1L. The lymph nodes of the porta hepatis and hepatoduodenal ligament are not enlarged. Further examination did not reveal any other lesions. A liver biopsy was performed. Histological examination of the biopsy specimen reveals a tissue area consisting of small parenchymal-like cells with very large nuclei with an increased nuclear-cytoplasmic ratio (8:1). There are nuclei of irregular scalloped shape with a delicate (young) structure, containing 3-5 large nucleoli. The cells do not form intercellular contacts, lie separately, and do not form tissue structures characteristic of the liver. These cells have mitotic figures. In some areas, these cells perforate the walls of microvessels,

grow into the surrounding tissue elements, destroying them, grow into the liver capsule and infiltrate the tissues of organs adjacent to the liver.

Questions:

What is your diagnosis?

Name the manifestations of tissue and cellular atypia that occur in the histological specimen. Determine the probable stage of the disease What type of

treatment is preferable

Sample answer:

Primary liver cancer

Viral hepatitis and liver cirrhosis are optional precancerous diseases for primary liver cancer Stage IIIA (T3N0M0)

TACE followed by systemic therapy

Task 30.

A 68-year-old smoker developed a dense, painless formation on the mucous membrane of the red border of the lower lip, covered with a crust measuring 1.0 cm. A dense lymph node up to 2.0 cm in size was palpated on the left side of the neck.

Questions:

What is your preliminary diagnosis?

Schedule an examination

A histological examination of biopsy material from a tumor and a lymph node in the neck revealed the presence of keratinizing squamous cell carcinoma.

No lesions of other regional lymph nodes, as well as distant metastases, were detected.

Name the stage of the process.

What treatment should be prescribed?

Sample answer:

Lower lip cancer

It is necessary to perform a scraping or biopsy with morphological examination, puncture biopsy of an enlarged lymph node in the neck, ultrasound of regional lymph nodes (including cervical, occipital, submandibular, supraclavicular), ultrasound of the abdominal organs to exclude metastatic

liver disease, radiography of the lower jaw to assess possible tumor invasion in bone structures, chest x-ray to exclude metastatic lesions of the lungs.

Based on the size of the tumor up to 2 cm and the presence of a single metastatic lymph node, the patient has stage III disease (T1N1M0) Combined

Task 31.

Patient N., 53 years old, welder. Smokes for 30 years. Complains of choking, pain when swallowing, sensation of a foreign body in the throat, hoarseness. Ill for 3 months. On examination, the cervical lymph nodes are not enlarged. A fibrolaryngoscopy was performed: the mucous membrane of the posterior pharyngeal wall is infiltrated by a tumor, there is ulceration, it bleeds on instrumental palpation, the vocal folds are fixed. A biopsy was performed. Histological conclusion: squamous cell carcinoma with keratinization.

## Questions:

What is the preliminary diagnosis?

What additional research methods should be used for diagnosis?

An ultrasound scan of the neck revealed an enlargement of 1 paratracheal lymph node on the right. A puncture biopsy revealed the answer: metastasis of squamous cell carcinoma.

No distant metastases were detected. Determine the stage of the disease. What could be the treatment?

Sample answer:

Laryngeal cancer.

It is necessary to additionally perform an ultrasound of the neck to determine possible changes in the regional lymph nodes, an X-ray computed tomography of the neck and chest organs to clarify the extent of the pathological process and the presence of distant metastases, and an ultrasound of the abdominal cavity to exclude metastases in the liver.

### T3N1M0, stage III.

Treatment should be combined; laryngectomy in combination with excision of the cervical tissue and lymph nodes on the affected side is indicated. After surgery, radiation or chemoradiotherapy

### Task 32.

Task 1.

A 48-year-old patient came to the appointment with a complaint of bloody discharge from the nipple of the right breast. I noticed this 3 weeks ago. Upon examination, a nipple ulcer measuring 0.5x0.7 cm with bloody discharge was revealed. Large mammary glands. The axillary lymph nodes on both sides are not enlarged by palpation.

A cytological examination of an impression smear from an ulcer of the right breast revealed cancer cells. The patient wishes to preserve her breasts.

*Questions:* 

What is the probable diagnosis?

What additional research methods are needed? What should be

the scope of radical surgery?

Sample answer:

Paget's cancer

Ultrasound of the mammary glands, mammography, radiography of the lungs, ultrasound of the abdominal and pelvic organs.

If the axillary lymph nodes are clinically intact, level 1 axillary lymph node dissection can be used. It is possible to perform organ-preserving tumor removal with mandatory postoperative radiotherapy or mastectomy.

Task 33.

A 37-year-old patient noticed a lump in the left breast 2 weeks ago. Upon examination, a tumor was revealed in the upper outer quadrant of the left mammary gland, not fused with the surrounding tissues, measuring 1 cm. 1 lymph node in the left axillary region was enlarged. Cytological examination of punctate from the mass and lymph node revealed ductal adenocacinoma cells.

### *Questions:*

Your diagnosis

What additional studies need to be performed on this patient to determine the stage of the disease? When examining data for distant metastases, it was not revealed, what should be the volume of radical surgery?

Sample answer:

Left breast cancer

Ultrasound of the mammary glands, mammography, radiography of the lungs, ultrasound of the abdominal and pelvic organs.

Regardless of the extent of surgery on the mammary gland, due to the presence of 1 metastatically affected lymph node, it is necessary to perform a complete axillary lymphatic dissection

## Task 34.

A 38-year-old patient, during a medical examination, a mammography was performed, the results of which revealed that at the border of the inner quadrants of the left mammary gland there was a rounded shadow 1.3 cm in diameter with a rim of clearing. The patient makes no complaints. On examination: the mammary glands are symmetrical, the nipples are not retracted. On palpation at the border of the inner quadrants of the left mammary gland, a tumor is determined to be about 1.5 cm in diameter, soft-elastic consistency, regular round shape, displaceable, painless. Regional lymph nodes are not palpable. *Questions:* 

What is your diagnosis? Further examination tactics? Further treatment tactics? Sample answer: Solitary cyst of the left breast. Needle biopsy of a left breast mass. Once the diagnosis is confirmed, sectoral resection of the left breast is indicated.

Task 35.

A 48-year-old patient complained of swelling and tenderness of the left breast. The complaints arose two weeks ago, the symptoms gradually increased. Body temperature 36.6°C. On examination: the left mammary gland is larger than the right, the skin of the gland is diffusely swollen and hyperemic. There is an increase in local temperature. On palpation there is moderate pain, diffuse induration due to edema. Nodular formations are not identified. In the left axillary region, enlarged axillary lymph nodes are detected, of dense consistency and painless. *Questions:* 

Formulate and justify the diagnosis.

What diseases need differential diagnosis? Name the necessary additional research.

Determine the tactics and principles of treatment.

Sample answer:

Left breast cancer. Edema-infiltrative form. It should be differentiated

from non-lactation mastitis.

It is necessary to perform a mammogram and ultrasound of the mammary glands. If nodular formations are detected, puncture. If they are absent, puncture of the lymph nodes in the axillary region.

Once the diagnosis is confirmed, systemic treatment (chemotherapy, hormone therapy) is prescribed. When a pronounced therapeutic effect is achieved, it is possible to perform surgical intervention in the scope of a mastectomy.

Task 36.

A 55-year-old woman accidentally discovered a tumor in her right breast. Menopause 5 years. On examination: the mammary glands are large, the skin is not changed, the nipples are unchanged, there is no discharge from them. Upon palpation, a dense, painless, inactive formation measuring 3.0x2.2 cm is determined in the upper outer quadrant of the right mammary gland.

Questions:

What is your preliminary diagnosis?

Further examination tactics? Further treatment

tactics? Sample answer:

Breast cancer T2NXMX.

It is necessary to carry out: cytological examination of the tumor punctate, mammography, ultrasound of the mammary glands, abdominal and pelvic organs, chest radiography to determine distant and regional metastases

If there is no evidence of regional and distant metastasis, surgical treatment followed by radiation therapy or chemoradiotherapy.

Task 37.

A 50-year-old man was admitted to the therapeutic department of the hospital with complaints of weakness, cough with a small amount of sputum, and fever up to 37.5°C. History of frequent colds. Smokes. An X-ray examination of the lungs revealed darkening in the hilar zone of the right lung and a decrease in the airiness of the middle lobe.

Questions:

What disease should you think about?

What radiological sign is the main one for your diagnostic version?

What is the minimum amount of research that needs to be performed to clarify the diagnosis when confirming your diagnostic version?

The examination revealed no evidence of distant metastases, stage IIa disease, what treatment is indicated for the patient?

Sample answer:

Central lung cancer.

Decreased airiness of the middle lobe of the right lung Cytological

examination of sputum, bronchoscopy with biopsy Combined treatment

Task 38.

You work as a doctor in a therapeutic hospital. A patient has been admitted to you with a clinical picture of exacerbation of chronic bronchitis, with complaints of low-grade fever and a persistent dry cough with a small amount of sputum. X-ray of the lungs in 2 projections did not reveal any evidence of a malignant process. However, despite the treatment, the patient's condition does not improve, the temperature persists and blood streaks have appeared in the sputum.

*Questions:* What disease can be suspected in this case?

Indicate the main "alarming" symptoms that confirm your version of the diagnosis.

What research needs to be done first?

Sample answer:

A history of chronic bronchial disease, persistent dry cough, hemoptysis

Cytological examination of sputum, bronchoscopy with biopsy, X-ray computed tomography of the lungs

Task 39.

A 57-year-old woman consulted a neurologist with complaints of pain in her right shoulder. Considers himself sick for a month. The onset of the disease is associated with severe hypothermia. The doctor diagnosed plexitis and prescribed physiotherapeutic treatment. The patient's condition worsened and a fever appeared. A few days later, the doctor diagnosed the presence of Horner's triad. Despite this, he continued treatment. Questions: What disease can be assumed in this case?

What studies need to be performed to clarify the diagnosis? What does

Horner's syndrome include and what does Horner's syndrome indicate in this

situation? Analyze the actions of a neurologist.

Sample answer:

Cancer of the apex of the right lung (Pancoast cancer)

X-ray of the lungs in 2 projections, X-ray of the chest organs

The neurologist prescribed treatment without a preliminary x-ray examination; as a result, physiotherapeutic procedures led to rapid progression of the disease. The reason for this was the insufficient degree of "oncology alert" of the doctor.

Task 40.

The patient is 56 years old, worked for a long time in glass production, and is a smoker. She is seen by a therapist for chronic bronchitis; only fluorography is performed annually. After another visit to the doctor two months later, streaks of blood appeared in the sputum, he was treated on his own. His condition worsened, he developed a fever, weakness, and lost a lot of weight. When visiting a doctor, an X-ray examination of the lungs was performed and atelectasis of the lower lobe of the right lung lobe was detected.

Questions:

What disease can be assumed in this case?

What studies need to be performed to clarify the diagnosis? Analyze the doctor's actions.

Sample answer:

Central lung cancer. Endobronchoscopic examination

with biopsy

In this observation, the doctor's mistake was that an X-ray and bronchoscopic examination of the lungs was never performed, although the patient belongs to the risk group.

Task 41.

The patient is 61 years old. 3 years ago, a lobectomy was performed for central lung cancer T1N0M0. Histological conclusion – small cell carcinoma. He refused further treatment. Currently complaining of headaches.

Questions:

What treatment should be given to this patient after surgery? What pathology can be assumed in this case?

What diagnostic methods will help establish the correct diagnosis?

Sample answer:

Taking into account the histological conclusion, the patient was advised to undergo courses of adjuvant polychemotherapy

In this observation, brain metastases cannot be excluded.

It is necessary to perform RCT of the chest cavity, mediastinum, and brain.

Task 42.

A 55-year-old patient was treated for a long time by a surgeon for a trophic ulcer of the leg. There was no effect from conservative treatment; over the past 6 months the ulcers have increased in number. When examined during a regular visit to the doctor: on the skin of the anterior

on the surface of the leg there is a trophic ulcer, in the lower corner of which, in an area measuring 5x4x3 cm, the tissues are compacted, infiltrated, rise above the rest of the surface of the ulcer, there are no granulations, there is a fibrin film on the surface. Regional lymph nodes are not palpable. The doctor recommended continuing conservative treatment. *Questions:* 

What disease can be suspected in this case? What research needs to be done? Analyze the doctor's tactics. What treatment is needed? *Sample answer:* Taking into account the history, clinical picture, and the lack of effect of conservative treatment for several years, it is necessary to suspect squamous cell skin cancer. It is

necessary to perform a cytological examination of the surface of the ulcer.

The doctor's actions lack oncological alertness, which can lead to progression of the disease and generalization of the tumor process.

Combined

#### Task 43.

A 14-year-old patient consulted a dermatologist with complaints of a pigmented tumor on the skin of her left thigh. From the anamnesis: this formation has existed since birth, increasing in parallel with the growth of the patient. During the period when menstruation began, I noticed a rapid increase in it, and three months before going to the doctor, I noticed a change in color and slight vulnerability. On examination: there is a pigmented tumor on the skin measuring  $3.0 \times 2.0 \times 1.0 \text{ cm}$ , with a lumpy surface, dark brown in color. The doctor referred the patient to an oncologist.

Questions:

What disease can you think about? Specify risk

factors

Specify the symptoms of nevus activation.

What treatment method will be the main

one? Sample answer:

Melanoma of the skin.

Risk factors include: activation of congenital formation during puberty.

Symptoms of activation are tumor growth, change in its color. Surgical

Task 44.

A 23-year-old patient consulted a surgeon with complaints of a tumor in the left axillary region. On examination: in the axillary area there is a dense conglomerate, the skin over it is hyperemic and thinned. The doctor, based on these data, diagnosed lymphadenitis and performed an autopsy. In this case, no pus was obtained, and loose, slightly bleeding black masses were detected at the bottom of the wound. Despite this,

The "abscess" was drained and anti-inflammatory treatment was prescribed. *Ouestions:* 

What disease can be discussed in this observation? Name the main

mistakes of a doctor-surgeon.

Possible answers:

Melanoma, metastatic form.

In this situation, the doctor did not collect anamnesis, did not fully examine the patient, and did not perform a puncture biopsy. Even in the absence of pus and the presence of structureless

The black mass did not suspect melanoma metastasis. It was necessary to refer the patient to an oncologist.

Task 45.

A 14-year-old boy has many pigmented formations on his skin. According to the mother, they are both congenital and appeared over the past year. Three formations on the anterior abdominal wall quickly increased in size and darkened. Upon examination by a dermatologist, they were found to be in an area of constant irritation from the waist belt. The doctor recommended observation.

#### Questions:

What factors are associated with the increase in the number of pigment formations? What tactics would you recommend?

Sample answer:

With puberty

Taking into account the period of puberty, the activation of three tumors and their constant traumatization, it is necessary to remove three pigmented tumors in an oncological institution with morphological verification. For other pigmented formations, dynamic monitoring by an oncologist should be recommended.

#### Task 46.

A 15-year-old girl was diagnosed with a tumor in the left neck area. The doctor did not identify painful symptoms or any specific disease in the patient, but drew attention to the presence of an enlarged cervical lymph node posterior to the sternocleidomastoid muscle measuring 3x2 cm, elastic, moderately mobile, fixed to the skin. A puncture biopsy revealed Reed-Stenberger cells. *Questions:* 

Define the disease.

What is the next step in the diagnostic process?

An examination did not reveal enlargement of other groups of lymph nodes, liver and spleen. Determine the stage of the disease.

What should the treatment be?

Sample answer:

Lymphogranulomatosis

KLA, OAM, B/C blood test, CT scan of the neck, <u>chest and abdomen</u> IA stage Chemotherapy followed by a course of radiation therapy to the primary lesion

#### Task 47.

A 62-year-old patient was admitted with complaints of fever, night sweats, weight loss, and itching. Ill for 3 years. On examination: enlarged, mobile, not fused to the skin, dense elastic lymph nodes are palpated, merging into conglomerates in the cervical-supraclavicular region on the right. Lungs and heart without features. Liver at the costal arch. The spleen protrudes 3 cm from under the costal arch. Blood test: Hb 100, leukemia. 3.2, Eoz. 11%, p/o 4%, p/o 62%, lymph 14%, mon. 6, thrombus. 20.0, ESR 20.

Questions:

What is the most likely cause of lymphoproliferative syndrome based on blood tests? What is expected in a lymph node biopsy?

What treatment should be prescribed?

Sample answer:

Lymphogranulomatosis.

Berezovsky-Sternberg cells

Chemotherapy followed by a course of radiation therapy to the primary lesion

Task 48.

Boy N., 3 years old, was admitted with complaints of a tumor-like formation in the abdominal cavity. A month ago, the child's mother accidentally, while bathing, noticed the presence of a tumor-like formation in the left half of the abdomen. On admission the condition was of moderate severity. The skin is clean and pale. Breathing is carried out on both sides. Upon examination, the abdomen is asymmetrical: the left half bulges; upon palpation, a tumor-like formation of dense elastic consistency is determined, lumpy, inactive, emanating from the left hypochondrium, painless. Stool and urination are not impaired. CBC: Erythrocytes – 2.9x1012/l, hemoglobin 109 g/l, ESR 50 mm/hour, leukocytes 9.0x109/l TAM: straw-yellow, transparent, specific gravity 1019, protein - turbid, leukocytes 0-1-1 in the field of vision, erythrocytes 10-11-12 in the field of view. A plain X-ray of the abdominal organs reveals a homogeneous darkening occupying the left half, the intestinal loops are shifted to the right. *Questions:* 

Name the main symptoms, highlight the leading one.

Your preliminary diagnosis.

What additional research methods should be used to make a diagnosis?

How can the diagnosis be verified? What treatment

should be given?

Sample answer:

Asymmetry of the abdomen, anemia, accelerated ESR, microhematuria, the presence of a homogeneous darkening of the left half of the abdomen on a survey radiograph of the abdominal organs, the leading symptom is the presence of a palpable formation in the abdomen.

Malignant tumor of the abdominal cavity, retroperitoneal space. Ultrasound scanning of the abdominal organs, retroperitoneal space, excretory urography

Percutaneous tumor biopsy with histological examination Combined

Task 49.

The parents of a 5-month-old child, Ch., complained that the girl had a tumor in the left lateral area of her neck. The parents discovered a small tumor on the neck 2 months ago. The child was examined by a pediatrician, diagnosed with lymphadenopathy of the cervical lymph nodes, and anti-inflammatory and desensitizing therapy was prescribed. After 1 month, the size of the tumor tripled, a pediatric surgeon was consulted, and a fine-needle aspiration biopsy was performed. Cytological results: complexes of small round cells, possibly lymphocytic proliferation. For subacute simple cervical lymphadenitis, antibiotic therapy was prescribed, which had no effect. Objectively: the child is developed according to his age, active, has satisfactory nutrition. The skin is clean. Subcutaneous fatty tissue is well expressed, peripheral lymph nodes are not enlarged. Physical examination of the internal organs did not reveal any pathology. In the left lateral area of the neck, a painless tumor measuring 5x3 cm, extending under the sternocleidomastoid muscle with clear contours, is palpated, extending under the sternocleidomastoid muscle with clear contours, a limited mobility that does not invade the skin. Ultrasound showed the presence of a soft tissue tumor, consisting of two nodes merging with each other, a heterogeneous structure with areas of calcification, weakly intense intranodular blood flow adjacent to the neurovascular bundle, but not growing into its structure.

## Questions:

Which of the presented research results allows us to suspect neuroblastoma?

Determine the minimum diagnostic tests to confirm the diagnosis and establish the stage of the tumor process?

What is the treatment strategy for a child in the absence of data on the presence of distant metastases?

Sample answer:

The presence of small round cells according to the results of a cytological study, the presence of calcium inclusions in the tumor tissue according to ultrasound.

RCT of the chest organs, ultrasound of the abdominal cavity and peritoneal space, review of cytological preparations and/or repeated aspiration biopsy of the tumor, study of the level of serum catecholamines, study of bone marrow puncture and trephine biopsy of the iliac bones. The first stage of treatment is radical removal of the tumor.

Task 50.

Child Ya., 4 years old, had sharply decreased vision in his left eye over the course of several months. The parents noticed the wide "luminous" pupil of this eye. The child is not bothered by pain. When examined objectively. Visual acuity of the right eye = 1.0. The eye is healthy. Visual acuity of the left eye =  $1/\infty$  plinc. The adnexal apparatus of the eye is not changed. The eye is calm. The anterior segment is without visible changes. The pupil is round, dilated, and practically does not react to light. Optical media are transparent. Ophthalmoscopically, a prominent yellowish-golden tuberous formation is visible in the fundus.

Questions:

State your presumptive diagnosis.

Determine the necessary additional research. Determine the

main directions of treatment.

Sample answer:

The presumptive diagnosis is retinoblastoma of the left eye.

Ophthalmoscopy is performed with the pupil as dilated as possible. Ultrasound scanning complements the diagnosis of retinoblastoma, allows you to determine its size, confirm or exclude the presence of calcifications. X-ray computed tomography of the orbits and brain (or MRI) is indicated for children over 1 year of age.

Treatment is cryodestruction, laser coagulation and radiation therapy. For common forms, treatment is supplemented with polychemotherapy. In severe cases - enucleation.

Task 51.

The child is 3 years old. Complaints about the presence of a tumor-like formation in the abdomen. From the anamnesis it is known that about a month ago the mother noticed changes in the child's behavior: he became lethargic, adynamic, his appetite decreased, abdominal pain and low-grade fever were periodically noted. The second child in the family grew and developed according to age.

Vaccinations are done according to the age schedule. There is no allergic history. Family history: parents are healthy, grandmother had ovarian cancer. On examination: pronounced pallor of the skin, dark circles around the eyes. Heart sounds are clear, rhythmic, heart rate 96 per minute, blood pressure 100/60 mm Hg. The abdomen is enlarged in size, deformed due to a tumor-like formation in the left half of the abdomen, and the venous network is moderately pronounced on the abdominal wall. On palpation, the tumor has a dense consistency, a coarsely lumpy surface, dimensions 10.0 x 15.0 cm, painless, and inactive. General blood test: Hb 108g/l, erythrocytes 3.6.1012/l, color. Indicator 0.8; leukocytes 6.9.109/l; p/o 3%; s/y 63%; e 5%; lymphocytes 21%; monocytes 8%; ESR 56mm/hour. General urine analysis: straw-yellow color, transparent; pH 6.5,

specific weight 1018, leukocytes 4-6 in the field, erythrocytes 2-4 in the field, protein negative, sugar negative. Biochemical analysis: total protein 56 g/l, AST 0.13 units, AlAT 0.15 units, amylase 32 units/l, thymol test 3 units, Veltman test 6 units, bilirubin 8 µmol/l; C-reactive protein is negative, urea is 6.5 mmol/l. Excretory urography: the unchanged abdominal cavity system of the right kidney is performed, the ureter has a cystoid structure, emptying is satisfactory. On the left, the renal cavity system is not contrasted. Plain radiography of the lungs - without pathology.

Questions:

Make a diagnosis and justify it.

What additional research methods are needed to clarify the diagnosis? Suggest a treatment plan *Sample answer:* 

Tumor of the left kidney (nephroblastoma, Wilms tumor). Based on data from complaints, anamnesis, objective examination, excretory urography.

Additional research methods: ultrasound of the abdominal organs, nephroscintigraphy, abdominal angiography, computed tomography and MRI of the abdominal cavity and retroperitoneal space, puncture biopsy.

Treatment plan: preoperative chemotherapy, surgery, postoperative chemotherapy;

Task 52.

A 14-year-old patient, after an injury to the anterior surface of the right leg, notes a painful swelling at the site of the bruise. Due to the growth of the tumor, after 2 months he turned to the surgeon at the clinic, who prescribed compresses and UHF. The tumor continued to grow. He was sent to a children's surgical hospital, where the festering hematoma was opened three times, but no pus was obtained. Objectively: thickening of the middle third of the left leg. The skin over it is bluish-purple in color with an ulceration of  $4 \times 2$  cm. In the soft tissues, a compaction measuring  $8 \times 6$  cm is detected, without clear boundaries. The inguinal lymph nodes are not enlarged. The patient has low nutrition, the skin is pale in color.

Questions:

Presumable diagnosis.

What mistakes were made at the previous stages of examination and treatment of the patient? What diagnostic methods should be used to clarify the diagnosis and extent of spread of the tumor process?

4. Determine possible treatment tactics.

Sample answer:

Soft tissue sarcoma of the right leg

The clinic surgeon prescribed physical treatment, despite the fact that there was evidence of a tumor of the lower leg and its progressive increase, the hospital surgeons performed surgery 3 times (erroneously), but a biopsy was not performed.

X-ray computed tomography of the right lower limb and chest organs, ultrasound of the abdominal cavity, cytological examination of impression smears from the surface of the ulceration, tumor biopsy with histological examination.

The patient, taking into account the location and size of the tumor, is indicated for combined treatment, depending on the postoperative histological report, including radiation and chemotherapy

Task 53.

A patient came to the clinic with complaints of weakness, weight loss, and pain in the epigastric region. Considers himself sick for about 10 years. Recently the condition has worsened. The doctor ordered an endoscopic examination, in which

A callous ulcer of the lesser curvature of the stomach was identified. No biopsy was taken. After a course of conservative therapy for 6 weeks, the condition worsened, ascites appeared, with repeated FGDS, the ulcer along the lesser curvature increased in size, a biopsy revealed signet ring cell carcinoma, and an ultrasound of the liver showed signs of multiple focal liver lesions.

Questions:

What disease should the doctor think about when presenting the patient? What was the mistake during the first gastroscopy?

What stage of the disease? What

should the treatment be? Sample

answer:

It was necessary to suspect stomach cancer.

The endoscopist did not perform a biopsy and made the diagnosis based on visual examination. TxNxM1, stage IV

If the patient's condition allows (ECOG 1-2) palliative chemotherapy, with ECOG 3-4 symptomatic treatment.

Task 54.

During the next fluorography, a round tumor-like formation in the right lung measuring 2.0 x 1.5 cm was discovered in a cement plant worker. The local doctor recommended observation and a control X-ray examination after a year. Questions:

Is the doctor right?

What disease should he suspect?

Which clinical group should this patient be classified into? Suggest an

examination plan

What types of biopsy can be used to morphologically confirm the diagnosis?

What treatment is indicated?

Sample answer:

No.

Peripheral lung cancer IA

X-ray of the lungs in 2 projections, X-ray CT of the chest, ultrasound or X-ray of the abdominal cavity, bronchoscopy, tumor biopsy.

CT-guided puncture biopsy, transbronchial biopsy during endoscopy, videothoracoscopy with biopsy, diagnostic thoracotomy.

Any focal formation in the lungs is subject to surgical treatment. If the diagnosis of lung cancer is confirmed, a lobectomy is performed.

Task 55.

The patient is 53 years old. Within six months, complaints of constipation appeared; notes periodic abdominal pain and bloating. I have never seen a doctor before. Ouestions:

What disease should you think about?

Which clinical group should this patient be classified into? What is the sequence of diagnostic measures.

What treatment method will be the main one when confirming your diagnostic version? What type of surgery should be performed?

Sample answer:

Cancer of the left half of the colon. IA

Physical examination, digital rectal examination, sigmoidoscopy, irrigoscopy, colonoscopy with morphological examination of biopsy material, ultrasound of the abdominal cavity and pelvis Surgical

Depending on the location, left-sided hemicolectomy or resection of the sigmoid colon.

Task 56.

During a routine examination, a digital examination of the rectum in a 56-year-old man revealed a small tumor on a wide stalk, at a distance of 4 cm from the sphincter. During rectoscopy, a diagnosis was made of type III rectal polyp.

Its endoscopic removal was performed.

Questions:

Which clinical group should this patient be classified into? Was the correct tactic used for this patient?

Is the scope of the operation sufficient?

Sample answer:

IB

It was necessary to verify the disease during rectoscopy, and then determine treatment tactics. If the diagnosis of polyp is confirmed, the volume is sufficient. In the case of rectal cancer, the extent of treatment will depend on the histological conclusion; preference should be given to organ-preserving methods

Task 57.

A 34-year-old woman consulted an endocrinologist with complaints of an enlarged thyroid gland. An ultrasound revealed a node in the right lobe, completely occupying it. The doctor recommended hormonal treatment and observation.

Questions:

Analyze the doctor's tactics.

What disease would you suspect?

Which clinical group should this patient be classified into? What research

method will be decisive for making a diagnosis? Is the treatment chosen

correctly?

Sample answer:

Before prescribing treatment, it was necessary to obtain a conclusion that the patient did not have thyroid cancer.

Thyroid cancer IB

Puncture biopsy of a nodular formation in the thyroid gland.

Any nodular formation in the thyroid gland is subject to surgical treatment.

Task 58.

As a result of the initial examination, the patient was diagnosed with locally advanced gastric cancer with metastases to the liver.

Questions:

What stage of the disease?

What treatment is indicated for the patient?

Sample answer:

T4NxM1, stage IV

If the patient's condition allows (ECOG 1-2) palliative chemotherapy, with ECOG 3-4 symptomatic treatment.

Task 59.

As a result of the initial examination, the patient was diagnosed with locally advanced pancreatic cancer with metastases to the liver.

Questions:

What stage of the disease?

What treatment is indicated for the patient?

Sample answer:

T4NxM1, stage IV

If the patient's condition allows (ECOG 1-2) palliative chemotherapy, with ECOG 3-4 symptomatic treatment.

Task 60.

During a medical examination of a 58-year-old patient, ultrasound revealed a focal formation measuring 3x3 cm in the left lobe of the liver. The patient's general condition is quite satisfactory. Questions:

List the possible diseases hidden under the syndrome of focal liver formation.

What diagnostic measures will help clarify the diagnosis?

What are the possible treatment options depending on the established diagnosis? *Sample answer:* 

Metastasis from another organ affected by the tumor, primary benign or malignant liver tumor, parasitic cyst.

RCT with contrast enhancement, MRI with contrast enhancement, examination of organs from which metastasis occurs in the liver (stomach, colon, pancreas, spleen). Control for tumor markers. Serological reactions to parasites. Invasive methods: puncture biopsy, laparoscopy, laparotomy.

In case of metastatic liver damage, in some cases it is possible to perform a radical operation on the primary affected organ and resection of the liver segment with metastasis. In the presence of a primary liver tumor, resection of either a segment or lobe of the liver. In case of parasitic infection - segment resection or cystectomy.

Task 61.

A 69-year-old patient complained of an ulcerated skin lesion in the forehead area. According to the patient, the formation has existed for several years. Notes the slow growth of education. 4 months ago a small ulcer appeared in the area of the formation, which is gradually increasing. On examination: In the frontal region there is a superficial formation 1.5x2.5 cm, protruding above the surface of the skin with ulceration in the center.

The cervical lymph nodes are not enlarged.

Questions:

Formulate and justify the presumptive diagnosis.

What diseases need differential diagnosis? Name the necessary additional research.

Tell us about the principles of treatment.

Determine your tactics regarding the patient

Sample answer:

Taking into account the long history of the disease, the slow growth of the tumor, the characteristic macroscopic picture - the presence of a formation in the form of a papule with ulceration

(nodular-ulcerative form), the absence of metastatic lesions of the lymph nodes, one can assume basal cell cancer of the skin of the forehead.

Differential diagnosis should be carried out with other skin diseases. Nodular-ulcerative form with keratoacanthoma, due to a very similar macroscopic picture. Flat superficial basal cell carcinoma must be differentiated from lupus erythematosus, lichen planus, seborrheic keratosis, and Bowen's disease. The pigmented form should be differentiated from melanoma, sclerodermiform tumor from scleroderma and psoriasis. It is necessary to differentiate from squamous cell skin cancer.

Dermatoscopy to obtain a clearer macroscopic picture of the tumor, scraping from the surface of the tumor with cytological examination.

The main treatment method for basal cell carcinoma is surgery. It is necessary to excise the tumor, retreating 5 mm from the visible edge. In case of difficulties caused mainly by the location of the tumor (face, bridge of the nose, eyelids, etc.), an alternative may be cryodestruction, laser destruction, photodynamic therapy. Radiation treatment (short-focus X-ray or DHT) is used as part of a combination treatment for advanced forms of the disease, as well as in the adjuvant mode to prevent relapses

Taking into account the localization and size of the process and the possibility of simultaneous excision of the tumor, as well as the presence of ulceration, which is a relative contraindication to radiation treatment, the patient may be offered surgical treatment.

Task 62.

A 71-year-old patient complained of skin formation in the area of the right shoulder and pain when raising the right upper limb. From the anamnesis it is known that education in this area has existed for 3 years. Appeared in the area of a burn received 10 years ago. In the last year, I have noticed a thickening of the formation and an increase in its size. On examination: on the skin of the right shoulder there is a 4x3 cm formation, slightly protruding above the surface of the skin, with the presence of hyperkeratosis along its periphery. There was a significant increase in the axillary lymph nodes on the right, which merged into a conglomerate up to 5 cm in diameter. On palpation they have a dense elastic consistency. Painless. Ouestions:

Formulate and justify the presumptive diagnosis. Name the

necessary additional research.

Determine your tactics regarding the patient

Sample answer:

The patient probably has squamous cell carcinoma of the skin of the right shoulder with metastases to the axillary lymph nodes. This is indicated by anamnesis data indicating the slow growth of the tumor, its appearance against the background of a skin post-burn scar, the presence of enlarged regional lymph nodes similar to metastatic ones

Scraping from the surface of the tumor, ultrasound of the axillary, cervical and supraclavicular lymph nodes, puncture biopsy of enlarged axillary lymph nodes with cytological and histological examination. Ultrasound of the abdominal cavity, radiography of the OGK.

Considering that the patient has stage 3 squamous cell skin cancer, T2N2M0, treatment should be combined. The patient needs to undergo surgical treatment in the form of excision of the skin tumor of the right shoulder and right axillary lymphadenectomy. After healing of the skin wound, adjuvant radiation therapy is indicated.

Task 63.

Examination of a 37-year-old patient revealed enlargement of the inguinal lymph nodes on the left. Upon examination, on the skin of the anterior surface of the left leg there is a pigmented formation of irregular shape up to 12 mm, with an uneven surface and heterogeneous color. From the anamnesis: The patient notes the presence of this formation since childhood, but over the past six months he has noted an increase in size and a change in shape. Ouestions:

Formulate and justify the presumptive diagnosis. Name the necessary additional research.

Tell us about the principles of treating the disease in this patient.

Sample answer:

Considering the presence of a pigmented formation on the skin of the anterior surface of the left leg, its increase in size and change in shape over the past 6 months, it can be assumed that the patient has melanoma of the skin of the left leg with possible metastases to the inguinal lymph nodes on the left.

Dermatoscopy, ultrasound of regional lymph nodes, abdominal cavity, chest x-ray, puncture biopsy of inguinal lymph nodes. Preoperative<u>biopsy</u> primary tumor with a needle or partial removal is contraindicated, in order to avoid the spread of melanoma. To identify distant metastases, X-ray is indicated.<u>computer</u>

tomography, MRI and PET - CT. To identify possible bone metastases, a<u>scintigraphy</u> with isotope<u>phosphorus</u>.

In the absence of distant metastases, excision of the melanoma of the skin of the left leg, Duquesne's operation on the left (inguinal lymphadenectomy), is indicated. Additional treatment may include immunotherapy, chemotherapy with the inclusion of targeted drugs in the treatment regimen

Task 64.

A 38-year-old patient had a pigmented formation on his right forearm removed in a cosmetology clinic 4 months ago. Currently, a compaction with black pigmentation measuring 4 mm has appeared in the area of the postoperative scar. Also in the axillary region on the right, axillary lymph nodes are identified, enlarged to 1.5 cm, with a dense elastic consistency. *Ouestions:* 

Formulate and justify the presumptive diagnosis. Name the necessary additional research.

Determine your tactics in relation to the patient, what

mistakes were made at the stages of treatment.

Standard answer:

Based on the appearance of a recurrence of a pigmented formation a short time after its removal, as well as the appearance of dense enlarged regional lymph nodes, one can think that the patient has a malignant pigmented formation - melanoma of the skin of the right forearm, a relapse after non-radical surgery and metastases to the axillary lymph nodes on the right. Ultrasound of regional lymph nodes (including sub- and supraclavicular, as well as scapular), ultrasound of the abdominal organs to exclude metastatic lesions of the liver, chest radiography to exclude metastatic lesions of the lungs, puncture biopsy of regional lymph nodes.

In the absence of distant metastases, wide excision of the tumor recurrence along with the postoperative scar, in combination with axillary lymphadenectomy on the right, is indicated. After surgery, taking into account the high probability of distant metastases

systemic<u>chemo- and immunotherapy</u> with the possible use of targeted drugs after immunohistochemical examination.

The main mistake is removing pigmented skin formations outside a medical facility. This led to 1) insufficient radicalism of the intervention, since in beauty salons the removal of formations on the skin does not imply their wide excision along with the subcutaneous tissue to the aponeurosis, since this inevitably results in rough, cosmetically noticeable scars 2) lack of timely diagnosis of a malignant disease due to failure to perform morphological research

#### Task 65.

A 35-year-old patient came to the clinic with complaints of changes in the color, shape and size of a pigmented neoplasm on the skin of the anterior abdominal wall. Upon examination, a neoplasm was revealed, 2.5 cm in size, dark brown, without vellus hair, with a rim of hyperemia around the circumference. Regional lymph nodes are not palpable. Questions: What is your diagnosis?

What diseases need differential diagnosis? Schedule an examination

When examining the patient, no data were obtained for regional and distant metastasis. Histological examination revealed the following conclusion: melanoma. Name the basic principles of treatment. Determine your tactics regarding the patient.

#### Sample answer:

In this case, it is necessary first of all to assume skin melanoma, taking into account changes in the color, shape and size of a long-existing pigmented nevus. The presence of areas of different colors and the absence of hair are also suspicious for melanoma.

Primarily with pigmented nevi of the skin, as well as with other malignant formations, such as pigmented basal cell carcinoma. Any type of nevi can imitate a tumor, since congenital nevi often have an asymmetrical shape and large size.

It is necessary to conduct an ultrasound of the axillary, supra-, subclavian, and inguinal lymph nodes, an ultrasound of the abdominal organs to exclude metastatic liver disease, and a chest xray to exclude metastatic lung disease. In the absence of signs of their damage, as well as the absence of data for distant metastasis, it is necessary to perform a wide surgical excision of the skin area with pigment formation. The material must be sent for urgent histological examination. The main treatment for early melanoma is surgical removal. Both for the primary tumor and for the treatment of relapses, sheath-fascial excision of the tumor is performed. The tumor is removed together with the adjacent area of apparently unchanged skin - depending on the stage at a distance of up to 2 - 3 cm, subcutaneous fat up toaponeurosis or fascia subject muscles (including in some cases with its removal) followed by plastic surgery. In case of metastatic damage to the lymph nodes, they are removed. A definitive diagnosis of melanoma can be made afterhistological a study conducted after total removal of the tumor with sufficient inclusion of healthy tissue. The depth of germination is determined according to Clark, and Breslow and<u>mitotic index.Radiation therapy</u> - total focal dose - 40 - 45 GR.<u>Chemotherapy</u> used for generalization of the process, can be supplemented with immunotherapy and the use of targeted drugs

This patient requires surgical removal of the tumor. Since metastatic damage to regional lymph nodes has not been detected, we can limit ourselves to removing the tumor along with the adjacent area of apparently unchanged skin at a distance of up to 2 - 3 cm, subcutaneous fatty tissue

before<u>aponeurosis</u> or<u>fascia</u> subject<u>muscles</u>. The final treatment strategy will be</u>determined depending on the final histological conclusion about the depth of invasion according to Clark and Breslow.

#### Task 66

A 59-year-old man has had jaundice and decreased appetite for 2 months and has lost 15 kg. The examination revealed an enlarged liver, a sedentary formation was palpated in the epigastric region on the right above the navel. Over the past 2 weeks, he has been experiencing vomiting mixed with blood, nosebleeds, and hemorrhages on the torso.

#### Questions:

State the suspected diagnosis.

What additional studies need to be performed to clarify the diagnosis?

The patient's examination confirmed the diagnosis of a tumor of the head of the pancreas with obstructive jaundice syndrome. What volume of surgical intervention would be optimal at this stage?

#### Sample answer:

Most likely the patient has a tumor of the head of the pancreas with compression of the common bile duct and the development of obstructive jaundice syndrome, as well as the possible development of duodenal stenosis

Ultrasound of the abdominal cavity to determine the location of the tumor, the nature of jaundice (with obstructive jaundice, dilation of the bile ducts is determined), fluoroscopy of the stomach to assess the presence of duodenal stenosis, fibrogastroduodenoscopy to assess the condition of the mucous membrane and possible biopsy of the tumor, general and biochemical blood tests, coagulogram.

It is necessary first of all to ensure the elimination of jaundice, as the most life-threatening condition. It would be optimal to perform a minimally invasive surgical operation to drain the bile ducts. It can be antegrade - percutaneous transhepatic cholangiostomy under X-ray and ultrasound control, or retrograde

- endoscopic retrograde cholangiostomy. Less preferable are methods involving laparoscopic or open surgical interventions - the formation of cholecystostomy, choledochostomy, biledigestive bypass anastomosis due to the increased risk of hemorrhagic complications.

### Task 67

Patient A. 56 years old. Complaints of weight loss, nausea, rarely vomiting, pain in the epigastric region, and jaundice of the skin has been noted over the past week. I lost 7 kg in 3 months. Objectively: peripheral lymph nodes are not enlarged, with percussion of the chest there is a clear pulmonary sound, auscultation: breathing is carried out in all parts. The abdomen is soft, accessible to palpation, and there is pain in the epigastric region. Endoscopy: the mucous membrane of the lower third of the stomach is infiltrated, bleeds during instrumental "palpation", infiltration extends to the 12th bulb. Histological conclusion: poorly differentiated adenocarcinoma. Ultrasound of the abdominal organs: in the liver in the area of the 7th segment there is a rounded formation, without clear boundaries, in the head of the pancreas a space-occupying formation of 4x3 cm is detected, the pancreas has a heterogeneous structure, is swollen, the retroperitoneal lymph nodes are not enlarged. RCT of the abdominal organs: volume is noted

formation measuring 4x4 cm in the head of the pancreas, with signs of germination of the stomach wall. Marker CA 19-9 753 U/ml.

Questions:

State the suspected diagnosis.

What are the proposed treatment options.

Sample answer:

The patient has advanced pancreatic head cancer with liver metastasis T4N1M1.

Radical surgical treatment is impossible. The operation of internal drainage of the bile ducts (possibly stenting of the bile ducts) and, due to the presence of tumor growth into the duodenum, the formation of a gastroenteroanastomosis are indicated. It is possible to perform high-frequency thermal ablation of liver metastases. After surgery, palliative multi-course chemotherapy is indicated.

Task 68.

Patient S., 60 years old. Complaints of dull pain in the upper abdomen, loss of appetite, yellowness of the skin. Over the past 4 months I have lost 5 kg. There is a history of hepatitis B. Objectively: the skin is yellow, the peripheral lymph nodes are not enlarged, the abdomen is soft and enlarged, the edge of the liver protrudes 4 cm from under the costal arch. According to an ultrasound examination of the abdominal cavity, at the border of the 4th and 5th segments of the liver, a space-occupying formation measuring 4x5 cm in diameter with unclear boundaries is determined, at the porta hepatis there are lymph nodes enlarged to 2.5 - 3.0 cm, and ascites. *Questions:* 

What studies need to be performed to clarify the diagnosis of the disease?

When examining the patient, no evidence was obtained for the presence of other tumors. The AFP marker level is 700 ng/ml. Histological conclusion after puncture biopsy: against the background of pre-cirrhotic changes, hepatocellular cancer is determined. Formulate the diagnosis and stage of the disease.

The council of the oncology clinic decided to carry out conservative therapy. What factors is it due to?

Which treatment method will be most promising for this patient? Determine

drug therapy options

Sample answer:

In a patient who has suffered from hepatitis B, a tumor is detected in the liver, taking into account damage to the lymph nodes and the presence of ascites, most likely of a malignant nature. The task of a diagnostic search is to determine the primary (liver cancer) or secondary (metastatic cancer) nature of the lesion. It is necessary to perform an X-ray computed tomography of the chest and abdominal cavity, fibrogastroduodenoscopy, irrigoscopy or fibrocolonoscopy, determine the level of alpha-fetoprotein in the blood, as well as a puncture biopsy of a tumor in the liver under ultrasound guidance.

Based on histological examination data, confirmed by a high level of alpha-fetoprotein (against the background of cirrhosis, more than 400 ng/ml), the patient can be diagnosed with liver cancer. The tumor size is more than 2 cm, meets the T3 criterion. Metastatic lesions of the lymph nodes at the porta hepatis meet criterion N1. There are no distant metastases – criterion M0. Thus, the patient has stage IIIB disease.

Surgical treatment for the existing size and location of the tumor in the liver involves performing a right hemihepatectomy with removal of 70% of the organ. The presence of jaundice, ascites and signs of liver cirrhosis in this case are a contraindication to surgery.

Hepatocellular cancer is a tumor resistant to cytostatic therapy; radiation therapy is extremely risky and is rarely used. The main treatment method for liver cancer in this patient may be locoregional therapy through transarterial chemoembolization. This method is used in the 1st line of palliative treatment of liver cancer.

The only drug that significantly increases life expectancy in hepatocellular cancer is sorafenib (Nexavar), up to 800 mg/day. constantly, therapy with cytostatics is effective in no more than 20% of patients. For viral hepatitis B, treatment should be carried out with the use of antiviral drugs.

Task 69.

A 63-year-old patient complained of jaundice, pain in the epigastric region, weakness, weight loss, lack of appetite, and itchy skin. For 12 years he has been suffering from cholelithiasis, chronic cholecystitis with periodic exacerbations, manifested by attacks of pain in the right hypochondrium. She refused the proposed operation. In the last 6 months, pain has appeared in the epigastric region, weakness, and a loss of body weight of 5 kg has been noted. A month ago, jaundice appeared. During this entire period, she did not experience any attacks of pain. The chair is acholic. On examination: intense yellowness of the skin and sclera, the abdomen is soft, the liver is compacted, protrudes from under the edge of the costal arch by 6 cm, its edge is sharp. Moderate palpation pain is detected in the epigastrium and the projection of the gallbladder, which is not palpable.

Questions:

What preliminary diagnosis can be made?

What diseases need a differential diagnosis? What preliminary examination should be undertaken?

Ultrasound of the abdominal cavity revealed a hypoechoic formation measuring 3x3 cm in the head of the pancreas, a pronounced dilation of the extrahepatic bile ducts, and hyperbilirubinemia in the blood up to 450  $\mu$ mol/l. During FGDS, bile does not enter the duodenum. Determine the treatment tactics for this patient.

What studies need to be performed to determine further treatment tactics?

Sample answer:

The gradual onset of the disease in a patient over 60 years old, pain in the epigastric region, weakness, weight loss, lack of appetite, and the appearance of jaundice indicate a high probability of a malignant tumor of the organs of the biliopancreaticoduodenal zone, most likely cancer of the head of the pancreas.

Due to the presence of jaundice syndrome, it is first necessary to differentiate it from cholelithiasis and choledocholithiasis, chronic diseases of the pancreas, and infectious hepatitis.

During the examination, first of all, it is necessary to establish the nature of the jaundice parenchymal or mechanical, since this is of decisive importance for determining treatment tactics. It is necessary to determine the level of bilirubin, transaminases, and alkaline phosphatase in the blood. Of the instrumental methods, the examination must begin with ultrasound, which is a screening method. An obligatory study is FGDS, during which tumors of the biliopancoatoduodenal zone of other localizations can be identified, a biopsy is performed, and the mechanical nature of jaundice is confirmed.

It is necessary to perform surgical intervention to eliminate obstructive jaundice syndrome, which is the most life-threatening for the patient. It would be optimal to perform a minimally invasive operation: or antegrade percutaneous

transhepatic cholangiostomy under ultrasound and X-ray control, or retrograde transtumoral cholangiostomy.

It is necessary to perform an RCT or MRI of the abdominal cavity to clarify the extent of the pathological process, the presence of regional and distant metastases, determine the resectability of the tumor, and chest radiography. For morphological confirmation, it is necessary to perform a fine-needle biopsy of the tumor under ultrasound guidance, or, if possible, a similar study with FGDS.

Task 70.

A 72-year-old patient complains of pain in the rectal area, secretion of mucus and blood during defecation, and tenesmus. History: chronic proctitis.

Questions:

What disease can be suspected in this patient? What examination

methods should be used?

What treatment method will be the main one when confirming your diagnosis? *Sample answer:* 

An elderly patient with a long-standing chronic inflammatory disease has a clinical picture characteristic of rectal cancer.

Digital examination of the rectum (examination up to 6 - 8 cm), sigmoidoscopy (visualization up to 22 - 25 cm, possibility of biopsy), fibrocolonoscopy to exclude the primary multiple nature of the lesion, ultrasound or magnetic resonance imaging of the abdominal cavity and pelvis to clarify the prevalence tumors and determining the presence of enlarged and suspicious lymph nodes regarding their metastatic lesions, as well as possible metastases in the liver and retroperitoneal lymphatic collector, X-ray computed tomography of the chest organs. Surgical

Task 71.

A 60-year-old patient complains of weakness, loss of appetite, low-grade fever, unstable stool, and periodic pain in the right half of the abdomen. Survey data. In the mesogastrium on the right, a formation measuring 7x6 cm is palpated. It is inactive, slightly painful, and lumpy.

X-ray of the lungs without pathology.

ECG: sinus rhythm, 85 per minute, load on the right atrium. Clinical blood test: hemoglobin - 60 g/l; erythrocytes - 4.0X1012/L; color index - 0.9; platelets -240x109/l; leukocytes - 8.2x109/l (band - 1%, segmented - 61%, eosinophils - 7%, lymphocytes - 8%, monocytes - 13%); ESR - 30 mm/h. Urinalysis: density - 1003 g/l, medium reaction - neutral, leukocytes - 0-3 in the field of view. EGDS without pathology. Ultrasound of the abdominal cavity: diffuse changes in the liver. *Questions:* What is the presumptive diagnosis? What needs to be done to clarify the diagnosis before starting treatment? What is this form of this pathology called? What is the main

method of treating this pathology?

Which operation will be considered minimally acceptable when choosing surgical treatment tactics?

Sample answers:

Cancer of the right half of the colon. Colonoscopy

with biopsy

Toxic-anemic form. Surgical.

Right hemicolectomy.

Task 72.

Patient S., 64 years old, was taken by ambulance to the clinic with complaints of cramping abdominal pain after 15-20 minutes, repeated vomiting, and failure to pass stool and gas. Sick for 6 hours, no previous treatment. When examining decreased nutritional status, the abdomen is evenly distended, intestinal motility is increased and sonorous. A digital examination of the rectum reveals an empty ampoule. On a plain X-ray of the abdominal organs, Kloiber's cups are identified. Acute intestinal obstruction was diagnosed. Conservative therapy, including a siphon enema, had no effect. Emergency surgery performed. A tumor of the sigmoid colon measuring 6x6 cm was discovered, completely blocking its lumen, growing through the serous membrane, enlarged dense lymph nodes in the mesentery along the sigmoid artery, metastatic in appearance. The afferent segment of the colon and small intestine is sharply dilated, overflowing with intestinal contents. There is no effusion in the abdominal cavity. During the examination, no other pathology was revealed in the abdominal cavity.

Questions:

Determine the diagnosis of the disease, approximately the stage of the

process. What type of surgery should be performed?

Justify the previous solution.

Sample answer:

Considering the presence of a stenosing tumor of the sigmoid colon, growing through its serous membrane, metastatic damage to regional lymph nodes, and the fact that most often distant metastases in colorectal cancer are localized in the liver, and it is not affected, a preliminary diagnosis can be made: stage III sigmoid colon cancer, T3N1-2M0 complicated by acute intestinal obstruction.

The optimal intervention against the background of acute intestinal obstruction would be to perform obstructive resection of the sigmoid colon (Hartmann operation). The efferent end of the intestine should be sutured and left in the abdominal cavity. The adducting distended segment of the colon should be brought to the anterior abdominal wall in the form of a single-barreled anus and opened, releasing the intestinal contents.

The operation of choice for sigmoid colon cancer is resection of the sigmoid colon with simultaneous formation of a colonic anastomosis. However, in the presented observation, the operation was performed against the background of acute intestinal obstruction and an overstretched adductor section of the colon. The formation of a one-stage anastomosis would be too dangerous due to the high probability of failure of the anastomosis sutures. Another option for the treatment of acute tumor obstruction in sigmoid colon cancer is the formation of a discharge colostomy to the proximal parts of the colon, however, the risk of tumor progression and its further metastasis remains. It is also possible to stent tumor stenosis with the determination of further treatment tactics after resolution of the obstruction.

Task 73.

Patient K, 72 years old, applied to the oncology clinic with complaints of bloating and periodic attacks of cramping abdominal pain. Fibercolonoscopy with biopsy at the place of residence revealed a circular stenotic tumor of the splenic angle of the colon, histological conclusion: mucus-forming adenocarcinoma. Ultrasound of the abdominal cavity revealed 2 hyperechoic foci measuring up to 3 cm in the liver.

Questions:

What do you think should be the preliminary diagnosis? What additional studies need to be performed on this patient? Name the basic principles of treatment.

Sample answer:

The patient has cancer of the splenic angle of the colon, T3-4NxM1 (liver), stage 4, complicated by chronic intestinal obstruction.

X-ray computed tomography of the chest, magnetic resonance imaging of the abdominal cavity and pelvis, to clarify the extent of the tumor in the colon and clarify the nature of liver damage, the presence of enlarged and suspicious lymph nodes in relation to their metastatic lesions, to confirm the metastatic nature of liver damage, it is desirable to perform puncture of lesions under ultrasound guidance, detection of KRAS mutations in the tumor

The patient has generalized colon cancer with potentially resectable synchronous liver metastases. If it is possible to remove metastases, an R0 operation (extended left-side hemicolectomy and liver resection) is indicated. Subsequently, adjuvant chemotherapy is required for 6 months. Perioperative and neoadjuvant chemotherapy is possible. Metastases in the liver may be influenced by other factors (cryodestruction, alcoholization, radiofrequency thermal ablation).

Task 74.

A 63-year-old patient was admitted to the surgical department as an emergency. Complains of cramping abdominal pain, gas retention and lack of stool for two days. There was a single vomiting. The pain appeared suddenly 4 hours ago. Before this, for 6 months, he periodically noted stool retention, and occasionally found blood in the stool. I didn't go to the doctors. There were no operations on the abdominal organs. Moderate condition. The tongue is a bit dry. The abdomen is swollen, soft on palpation, moderately painful in all parts, intestinal motility is increased. Shchetkin's symptom is negative. Pathological formations in the abdominal cavity cannot be palpated. On rectal examination, the ampulla is empty, the sphincter is atonic. During the siphon enema, it was possible to introduce about 700.0 ml of water into the rectum. With a survey X-ray of the abdominal cavity, Kloiber's cups are visible in the loops of the large and partially small intestine.

Questions:

What type of intestinal obstruction does the patient have and what is its most likely cause?

IN which position sick (vertical or horizontal) was carried outX-ray examination to identify Kloiber's cups?

What examination should be carried out to clarify the diagnosis and establish the localization of the process?

What conservative measures should be taken before surgery and for how long?

What surgical intervention should be performed in case of obstruction due to a tumor of the right half of the colon?

What surgical intervention should be performed in case of obstruction due to a tumor of the left half of the colon?

Sample answer:

Obstructive. Considering age, gradual development of the disease (intestinal complaints over six months), the presence of blood in the stool, constipation, the most likely cause is cancer.

In vertical. On radiographs taken in a horizontal position, Kloiber's cups are not visible.

Irrigoscopy. Colonoscopy is fraught with the risk of rupture of the altered intestinal wall during air insufflation.

The complex of decompressive measures includes siphon enemas, nasogastric decompression of the upper digestive tract, and antispasmodics. Measures are taken to combat intoxication, correct volemic disorders, normalize the functions of the cardiovascular system, liver and kidneys. If the obstruction is eliminated, there is no need for emergency surgery. If intensive therapy, carried out for 2-4, but not more than 6 hours, is ineffective, surgical intervention is performed.

In case of obstruction due to a tumor of the right half of the colon, right hemicolectomy is optimal.

In case of obstruction due to a tumor of the left half of the colon, the Hartmann operation is optimal.

Task 75

The patient is 19 years old. Complaints of pain in the right shoulder, intense, disturbing at night, increased body temperature in the evenings to 38.5 -39.00C. Sick for

3 weeks. Objectively: the right shoulder has a normal configuration, the skin is not changed, upon palpation there is local pain in the middle third. The patient underwent radiography and radioisotope study of the skeletal bones: the tumor is located in the middle third of the humerus, extends up to 5 cm, extends beyond the cortical layer, the lesion of the periosteum is determined according to the type

"bulbous" periostitis. Increased levels of alkaline phosphatase and LDH were detected in the blood serum. An X-ray examination of the chest organs revealed multiple round shadows ranging in size from 1.5 to 3 cm in the parenchyma of the right lung.

Questions:

What is your preliminary diagnosis?

What additional research needs to be done?

What diseases need differential diagnosis? What stage of the disease does this patient

have?

Suggest a treatment option

Sample answer:

Based on the acute onset and rapid progression of the disease, pain syndrome, clinical picture of severe intoxication, the presence of radiological signs of a tumor in the diaphysis of the right shoulder, the radiological symptom of "bulbous" periostitis, determination of metastases in the right lung, increased levels of alkaline phosphatase and lactate dehydrogenase in the blood, a diagnosis can be made Ewing's sarcoma of the right shoulder with metastatic lesions of the right lung.

X-ray computed tomography of the chest, CT scan of the brain, ultrasound or magnetic resonance imaging of the abdominal cavity and

pelvis, ultrasound of areas of regional metastasis, trephine biopsy or open tumor biopsy.

The differential diagnosis of Ewing's sarcoma is made between osteogenic sarcoma, eosinophilic granuloma, osteoblastoclastoma, acute hematogenous osteomyelitis, bone forms of tuberculosis, bone metastases. The determining factors in making a diagnosis are the data of the morphological examination of the biopsy material.

The patient has a tumor of less than 8 cm, which corresponds to the T1 criterion; in accordance with the biopsy data, there is no involvement of regional lymph nodes, which corresponds to the N0 criterion. According to RCT data, there is multiple metastatic lesions of the lungs - M1a. Thus, the patient has stage IVA (T1N0M1a).

Ewing's sarcoma is a tumor that is sensitive to chemotherapy and radiation treatment. Modern treatment programs use preoperative and postoperative polychemotherapy, which also takes into account the histological response of the tumor to treatment, as well asradial therapy for the lesion in high doses (including for distant metastases). Surgical treatment involves, if possible, radical removal of the tumor, while surgery in combination with intensive chemotherapy and radiation therapy significantly reduces the risk of local recurrence. A decrease in the incidence of local recurrence is observed even after non-radical operations. Preference should be given to organ-preserving operations.

Grade "unsatisfactory"(not accepted) or absence competence development	Grade "satisfactorily"(passed) or satisfactory (threshold) level of competence development	Rating "good" (passed) or sufficient level of mastery competencies	"Excellent" grade (passed) or high level of development competencies
The student's inability to independently demonstrateknowledge when solving tasks, lack of independence in using skills. The lack of confirmation of the development of competence indicates negative results in mastering the academic discipline.	The student demonstrate sindependence in applying knowledge, skills and abilities to solving educational tasks in full accordance with the model given by the teacher, for tasks the solution of which was shown by the teacher, it should be assumed that competenc eformed on	The student demonstrates independen tapplication of knowledge, skills and abilities in solving tasks similar to samples, which confirms the presence of formed competence at a higher level. Availability such competence is sufficient	The student demonstratesthe ability to be completely independent in choosing a way to solve non-standard tasks within the discipline using the knowledge, skills and abilities acquired both during the course of mastering this discipline and related
	satisfactory level.	levelindicates a firmly established practical skill	disciplines, competence should be considered formed at a high level.

## CRITERIA for assessing competencies and rating scales
percentage of correct answers	Marks
91-100	Great
81-90	Fine
70-80	satisfactorily
Less than 70	unsatisfactory

When grading tasks with multiple correct answers, one error is allowed.

## Criteria for assessing situational tasks:

	Descriptors			
Mark	understandin g the problem	analysis of the situation	situation solving skills	professional thinking
Great	full understandin gProblems. All requirements for the task have been met	high ability to analyze the situation,draw conclusions	high abilitychoose a problem solving method, confident solving skills situations	high level of professional thinking
Fine	full understandin gProblems. All requirements for the task completed	ability to analyze a situation,draw conclusions	abilitychoose a method to solve a problem, confident solving skills situations	sufficient level of professional thinking. One or two inaccuracies in the answer are allowed
satisfactory	partial understanding of the problem. Most of the requirement srequired for task completed	satisfactorystrong ability to analyze a situation and draw conclusions	satisfactor yadvanced skills in solving a situation, difficulties in choosing a method for solving a problem	sufficient level of professional thinking. More than two inaccuracies in the answer or an error in the sequence are allowed solutions
unsatisfactory	misunderstanding of the problem. Many requirement srequirements for the task were not completed. No answer. Did not have	low ability to analyze the situation	insufficien tsituation solving skills	absent
	attempts to solve the problem			