

«Fundamental issues of surgery»

A 67-year-old patient with a history of atrial fibrillation suddenly developed burning pain in her left leg and foot. Objectively: the shin and foot are pale, cold to the touch. Pulsation over the popliteal artery and arteries of the foot - no.

- 1) What is the most likely diagnosis?
- 2) What are the tactics of a surgeon after consulting this patient?
- 3) Should a surgeon prescribe additional diagnostic methods the next day?
- 4) What are the tactics of treatment of this patient?
- 5) What awaits the patient if he does not receive proper treatment in time?

A patient was admitted to the surgical department with complaints of pain in the left mammary gland. Sick for 6 days. Breastfeed. The child is 12 days from birth. The skin of a woman is pale.

In the upper outer quadrant of the left mammary gland, a painful formation with a diameter of up to 6–7 cm with softening in the center is determined.

- 1) What is the diagnosis of the patient?
- 2) Clinical forms of the disease?
- 3) With what diseases it is necessary to carry out differential diagnosis?
- 4) Therapeutic and diagnostic tactics?

The hospital was visited by the parents of boy G., 3 years old. Complaints of periodic abdominal pain, stool delay up to 4–5 days, irritability of the child in the act of defecation. The mother makes cleaning enemas every 3–4 days. The boy is behind his peers in physical development.

From the history of life is known to be born from the first pregnancy, pregnancy without complications, physiological birth at 38 weeks, on a scale of Apgar 8 points for 3 minutes, weight at birth 3224 g, height 49 cm.

The overall condition of the child was satisfactory. Skin pale, clean. Subcutaneous fatty tissue is underdeveloped. Heart tones are rhythmic, pulse is 131 per minute. Breath 36 per minute, purylic, symmetrical. The stomach is soft, slightly swollen, the child reacts to palpation calmly. Symptoms of peritoneal irritation are negative. Liver's not enlarged. Urine's yellow. Chair every 3-4 days after enema, feces of normal color, type I–II according to the Bristol scale of chair assessment.

A per rectum study found perianal hematomas, rectum ampoule filled with dense feces. The sphincter tone was elevated.

Hemoglobin – 94 g/l; Er. – $3.1 \times 10^{12}/l$; colour index – 0.86; Leukocytes – $12.2 \times 10^9/l$; Platelets – $230 \times 10^9/l$; ESR – 16 mm/hour; pH 7.39; chloride – 99 mmol/l; bicarbonate – 28 mmol/l; potassium – 3.7 mmol/l.

X-ray view of the Abdominal ultrasound in vertical position: dilated intestinal loops without horizontal fluid levels.

No pathology was found on the ultrasound of the Abdominal ultrasound, retroperitoneal space, heart, and brain.

Contrast irihography in forward and lateral projection: the distal part of rectum is narrow with tunnel-podibular transit zone, passes into dilatovan bowel; recto-sigmaid index – 0.9.

1. What is the most probable diagnosis?
2. What is the etiology and classification of this disease?
3. With what diseases should a differential diagnosis be made?
4. Which additional special examinations should be conducted to clarify the diagnosis?
5. What is the treatment tactics?

Patient with small cell lung cancer suffering from swelling of the face and neck, cyanosis of the skin of the face and neck, swelling of the veins of the neck and upper limbs, and a network of dilated veins on the front surface of the chest became

noticeable. At the same time, the patient complains of shortness of breath, cough, chest pain, hoarseness.

question:

- 1) What is the most likely complication in the patient?
- 2) What is the volume of medical care in order to correct the revealed violations?

The boy is 12 years old for a week of abdominal pain, body temperature increase to 38,5 °C, in urine analysis - leukocytosis, proteinuria. On ultrasound – expansion of the calyx and lumbar system of the left kidney.

- 1) Your diagnosis?
- 2) What additional methods of examination are needed to clarify the diagnosis?
- 3) The main causes of the disease.
- 4) Clinical manifestations.
- 5) Treatment plan.

A 22-year-old patient complains on pain in her right breast in 17 day after childbirth, and her body temperature rose to 38.5 °C. Objectively, the skin in the upper outer quadrant of the right breast is hyperemic, hot to the touch, swollen, on palpation the patient notes increasing pain. Axillar lymph nodes are enlarged, painful.

- 1) What is the probable diagnosis of the patient?
- 2) What laboratory and instrumental methods of examination will allow correctly determine the diagnosis?
- 3) With which diseases of the breast firstly it is necessary to make a differential diagnosis?
- 4) What are the treatment tactics?

Boy V., 2 years old, got a burn in everyday life 30 minutes ago when he accidentally turned over a cup of hot tea. Parents immediately delivered the child to the burn department on their own. On examination: in the areas of the face, neck, front and back surfaces of the trunk, right shoulder and forearm, there are multiple blisters filled with transparent, light yellow contents, when removed, pink, sharply painful burn wounds are exposed. The doctor determined the lesion area of 12% p.t.

- 1) Set the degree of damage. Describe the degree of damage.
- 2) Define the basic principles of first aid.
- 3) Stages and phases of the wound burn process.
- 4) Describe the principles of local treatment.

A 43 aged woman presented with an 18-year history of a slow-growing neck mass. She denied any compressive symptoms previously, but the last 2 months such signs as dysphagia, dyspnea, hoarseness had appeared. On physical examination of the thyroid, the patient had a right-sided soft, elastic nodule larger than 10 mm.

Lab Tests: TSH-2,1 (reference range, 0.4 mU/L to 4.0 mU/L), T4free – 13 mmol/l and thyroid antibodies were negative.

Imaging Studies: CT scan of the neck indicated a solitary dominant nodule of the right thyroid lobe measuring 140×78×84 mm without invasion of adjacent structures. A

minor compression and tracheal deviation to the left were also reported. Thyroid ultrasound indicated a large, heterogeneous nodule, solid with some cystic component, without well-defined contours, occupying the entire right lobe of the thyroid gland. The left lobe also had a 0.8 cm solid nodule. FNAB of left lobe nodule was benign, of right lobe nodule - cytologically follicular malignant neoplasm.

1) What kind of surgical procedures is preferable: hemithyroidectomy, subtotal or total thyroidectomy?

2) Is the prescribing of radioactive iodine I ¹³¹ justified? What principles of suppressive therapy by L-thyroxin?

3) How are thyroid cancers classified? How is the stage of thyroid cancers determined according to the TNM classification?

4) How do Follicular thyroid cancers metastasis differ from Papillary thyroid metastasis: clinical aspects and prognosis for life

The boy is 6 months old. Parents noticed that the child has no left testicle. When examining the child and genitalia, physical development corresponds to age. The right testicle in the scrotum, the left half of the scrotum is underdeveloped, the testicle is absent, a rounded formation of 1.2x1.0 cm is palpated along the groin canal.

1) What is your diagnosis?

2) What diagnostic measures will you perform to confirm the diagnosis?

3) What diseases should a differential diagnosis be made with?

4) What treatment method will you prescribe and when will you perform it?

55-year-old patient has change in bowel habits, such as constipation, or narrowing of the stool, that lasts for more than a few days, feeling that you need to have a bowel movement that is not relieved by doing so, rectal bleeding.

What methods are used to screen people for colorectal cancer?

34 year-old-male, admitted to the clinic with sudden onset left-sided neck swelling with pain and redness. There was no history of chronic disease, recently upper respiratory tract infection, or trauma. A painful nodule was palpated on the left lobe of his thyroid gland. There were monocytosis $1.011 \times 10^3 \mu\text{l}$ ($0.00-0.900 \times 10^3$), increased sedimentation rate; 52 mm/h (<20 mm/h) and C- reactive protein (CRP) level – 14.2 mg/dl (0–0.5). Thyroid hormones were in normal limits. Neck ultrasonography revealed 6×5 mm high-density cystic complex nodule, increased vascularity of left lobe, and reactive lymph nodes localized at the left jugular area.

1) Make a differential diagnosis between Subacute thyroiditis de Quervain and Acute suppurative thyroiditis.

2) Point out signs that could serve as a diagnostic criterion in making appropriate diagnose.

3) What kind of surgical procedures should be performed? Describe the treatment algorithm.

4) Based on what method can microbiological identification be provided in this case?

The 68-year-old patient undergoing a prostatectomy five days ago. In anamnesis coronary heart disease, hypertension, varicose veins of the lower extremities. Sudden onset of depression pain in the left half of the chest with spread

to the left shoulder, shortness of breath, whooping cough. On the ECG – signs of overload of the right part of heart.

- 1) What is the most likely complication in a patient?
- 2) With what diseases it is necessary to carry out differential diagnostics?
- 3) What instrumental research methods will confirm the diagnosis?
- 4) What is the doctor's tactics after consulting this patient?
- 5) What is the prevention of this complication?

In order to quickly restore blood loss, the patient received 1000 ml of the same group Rhesus-compatible donor blood, preserved with sodium citrate. By the end of the blood transfusion, the patient developed agitation, pale skin, tachycardia, convulsions.

- 1) What complication did the patient develop?
- 2) Prevention of complications.
- 3) Treatment of complications.

A 12-year-old boy was taken to a pediatric surgeon with complaints of fever up to 39 °C, general weakness, severe pain in the lower extremity. From the anamnesis it is known that the pain appeared after the injury and intensified after 5 days. He is under dispensary supervision for chronic tonsillitis and has untreated carious teeth. On examination: the left lower extremity occupies a forced position, active and passive movements are limited and sharply painful, the upper and middle third of the left leg is enlarged, the skin is swollen, hyperemic, hot to the touch. Percussion of the left tibia is sharply painful. Blood test: L- $28 \times 10^9 / l$, ESR-34mm/g, CRP-98mg/l. Establish the most likely diagnosis in the child.

A 42-year-old woman, who has been periodically seen by mammologist for 10 years, complains of pain, feeling of fullness in the mammary glands before menstruation, periodic appearance of white discharge from the nipple. After menstruation she found a tumor-like formation in the right breast. Objectively: the skin of the right breast is not changed, mobile, without clear contours, moderately painful, dense area of tissue up to 4 cm in diameter, in the upper outer quadrant. Axillar lymphatic nodes are not changed.

- 1) Establish a possible diagnosis.
- 2) What are the appropriate additional diagnostic methods?
- 3) Prescribe treatment tactics?
- 4) With which diseases of the breast firstly it is necessary to make a differential diagnosis?

The pediatric surgeon was called to the newborn due to severe vomiting with bile, which began 10 hours after birth. From the anamnesis: the child was born at 38 weeks of pregnancy. Polyhydramnios was detected by intrauterine ultrasound during the third trimester. On examination: the abdomen is enlarged due to the epigastrium, stretched, soft. Meconium discharge was not observed. Establish the most likely diagnosis in the child.

Patient M., 53 years old, complains of pain in the lumbar spine, which worries about 6 months. When examining a patient in an oncology clinic 2 months ago, he was diagnosed with cancer of the right kidney and underwent surgical treatment – right-sided nephrectomy. After the operation, no pronounced negative neurological dynamics were noted, the pain gradually increased. An X-ray of the spine revealed an extensive lesion in the vertebral body L4.

- 1) What is the most likely diagnosis in a patient?
- 2) What are the therapeutic tactics and the volume of medical care in order to alleviate the condition of the patient?

Patient N., 34 years old, came to the burn department with complaints of skin lesions of both hands, sharp pain and burning sensation in them. According to the patient, about 2 hours ago, an unknown liquid was spilled on her hands when she clean the sewer pipes. On examination: the skin of both hands is moderately swollen, moist, gray in color, with limited hyperemia around.

- 1) What type of lesion can be suspected in a patient?
- 2) Characterization and classification of this type of lesion.
- 3) First aid for this type of lesion.
- 4) Tactics of surgical treatment of this type of lesion.

The woman, 57-year-old, has been suffering from diabetes for more than 10 years. She complains of an ulcer in the heel of the right lower extremity and a decrease in the sensitivity of the right foot. The pulsation over the femoral and popliteal arteries is satisfactory, over the arteries of the foot - weakened.

- 1) What is the syndrome has this patient?
- 2) Do the patient need to consult a vascular surgeon?
- 3) What instrumental examination methods should be prescribed to the patient to decide the tactics of treatment?
- 4) What are the tactics of treatment of this patient?
- 5) What complication can this patient have if he does not receive necessary medical care?

Patient K., 26 years old, complains of pain in the right hand for 4 days. The pain first appeared in the area of the callus on the palmar surface at the base of the II and III fingers. Subsequently, the swelling of the back of the wrist began to increase rapidly, and the second and third fingers were half-bent at the interphalangeal joints. The brush looks like a "rake".

- 1) What is your diagnosis?
- 2) Clinical forms of the disease?
- 3) Therapeutic tactics?
- 4) Possible complications of this disease?