

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY

Faculty : International
Department of surgery №3

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The head of the department, professor



V. G. Bondar

Case scenarios

1. A 25-year-old woman presents to the emergency room complaining of redness and pain in her right foot up to the level of the midcalf. She reports that her right leg has been swollen for at least 15 years, but her left leg has been normal. On physical examination she has a temperature of 39°C (102.2°F). The left leg is normal. The right leg is not tender, but it is swollen from the inguinal ligament down and there is an obvious cellulites of the right foot. The patient's underlying problem is

1. Popliteal entrapment syndrome
2. Acute arterial insufficiency
3. Primary lymphoedema
4. Deep venous thrombosis
5. None of the above

2. A 60-year-old man is admitted to the coronary care unit with a large anterior wall myocardial infarction. On his second hospital day he begins to complain of the sudden onset of numbness in his right foot and an inability to move his right foot. On physical examination, the right femoral, popliteal, and pedal pulses are no longer palpable. Vascular consultation is obtained. Diagnosis of acute arterial embolus is made. Which of the following statements concerning this condition is true?

1. Appropriate management would be embolectomy of the right femoral artery under general anesthesia
2. Noninvasive haemodynamic testing is required
3. Prophylactic exploration of the contralateral femoral artery should be done despite the presence of a normal pulse
4. The source of the embolus is most likely the left ventricle
5. Arteriography is mandatory prior to operative intervention

3. In a 56-year-old woman who is inpatient of cardiological department for endocarditis, a strong pain under the knee joint has appeared 5 hours ago. The extremity is pale and cold. Pulsation is being defined only at the upper third of the thigh. Active movements are absent, passive ones are in full amplitude. Calf muscles are tender to palpation. Establish initial diagnosis.

1. Acute embolism of the femoro-popliteal segment, the IIIrd stage.
2. Endarteritis obliterans, the II-nd stage.
3. Raynaud's disease, the II-nd stage.
4. Acute embolism in the femoropopliteal segment, the II-nd stage.
5. Lerish's syndrome, the III-rd stage.

4. A 56-year-old woman suffers from mitral rheumatic heart defect and ciliary arrhythmia within 15 years. She has noted sudden sharp pains and difficulty in active movements in the lower extremities 2 hours

ago. On survey the lower extremities are cyanotic and cold, active movements are absent. Pulsation on femoral arteries of both limbs is absent. Initial diagnosis.

1. Thromboembolism of the abdominal aorta
2. Thrombosis in the cava vein inferior
3. Thrombosis in the common iliac vein
4. Thromboembolism in Adamkevich's artery
5. Acute radiculoneuritis

5. In a 38-year-old man severe pain in the left foot and leg has appeared two hours ago. The extremity became cold and pale. He is ill with mitral stenosis. Objectively: the skin of the right foot and leg is pale and cold; pulsation on the foot and popliteal arteries is absent. Tactile and temperature sensitivity are reduced. The most probable diagnosis.

1. Lumbosacral radiculitis
2. Acute thrombosis in the popliteal artery
3. Neuritis of sciatic nerve
4. Acute thrombosis in the popliteal vein
5. Embolism in the popliteal artery

6. In a 38-year-old woman embolism in the right popliteal artery has been diagnosed. Duration of the embolism is one hour. What kind of the first pre-hospital aid should be?

1. Analgesics, antispasmodic drugs, to apply an ice pack
2. Hot compress, immobilization
3. Immobilization, analgesics, hot compress
4. To apply an ice pack on the extremity; immobilization, analgesics, antispasmodic drugs
5. Antispasmodic drugs, analgesics, immobilization

7. A 49-year-old man was transported from a cardiologic hospital in 5 hours after the onset of the disease with complaints to a pain in the left leg and foot, numbness sensation and absence of movements in the ankle joint. He was treated for myocardial infarction within previous two weeks. On survey the patient's general state is heavy. P: 86/min, is arrhythmic. BP: 140/30 mm Hg. On auscultation cardiac sounds are arrhythmic and muffle. The skin of the left lower extremity and at the middle third of the thigh has got pale-cyanotic specks. The foot and leg are cold up to the middle third of the thigh. Movements in the ankle joint and toes are absent. Dermal sensitivity is absent up to the knee joint site. Pulsation on arteries is only being defined on the femoral artery under inguinal ligament, lower it is absent. On the right lower extremity pulsation on all peripheral arteries is satisfactory. What diagnosis the most probable?

1. Nonspecific aortoarteritis
2. Acute thrombosis in the left femoral artery.
3. Atherosclerosis obliterans of the lower extremities.
4. Endarteritis obliterans of the lower extremities.
5. Embolism in the left femoral artery.

8. A 58-year-old man is inpatient with embolism of small branches of pulmonary artery confirmed by angiography. The patient underwent prostatectomy 4 days ago. The treatment of choice will be:

1. Heparin therapy
2. Thrombolytic therapy
3. Indirect anticoagulants
4. Thrombectomy out of pulmonary artery
5. Venotonics introduction

9. A 65-year-old man complains of acute abdominal pain and giddiness. Objectively: the skin is pale; P: 120/min; BP: 70/40 mm Hg. The abdomen is soft, is moderately painful in mesogastrium where pulsating tuberos formation with unclear contours is being defined. ECG reveals ischemia of the myocardium in all parts of the heart. Initial diagnosis.

1. Aneurysm of the abdominal aorta
2. Aneurysm of the thoracic aorta

3. Aneurysm of the thoracoabdominal aorta
4. Aneurysm of the ascending aorta
5. Aneurysm of the descending aorta

10. A patient with a massive gastrointestinal bleeding and clinical presentations of haemorrhagic shock the packed red cells transfusion and the frozen plasma through a system without filter has been started. During transfusion the patient become restless; an acute pain in the right half of the thoracic cage, dyspnoea, cough with foamy sputum and blood has appeared. What complication has developed in the patient?

1. Thrombembolism of brain vessels
2. Syndrome of massive haemotransfusion
3. Thromboembolism of pulmonary artery branches
4. Stagnation in the pulmonary circulation
5. Acute heart failure

11. A 40-year-old man complains of dyspnoea, dry cough, and general weakness. On objective inspection acrocyanosis is being defined; on palpation a “cat’s purr” symptom is being detected in the projection of the heart apex. Auscultation reveals a strengthening of 1st sound; the sound of mitral valve opening is audible on the apex. Establish initial diagnosis.

1. Aorta valve insufficiency
2. Mitral insufficiency
3. Aorta valve stenosis
4. Mitral stenosis
5. Endocarditis

12. In a patient during operation due to mitral stenosis an expressed fibrous changes in shutters and calcification of mitral valve has not been revealed. What type of operation is indicated for the patient?

1. Closed mitral commissurotomy
2. Prosthetic repair of the valve
3. Aortocoronary shunt
4. Endocardiac electrocardiostimulation
5. Partial removal of the valve

13. A 52-year-old woman complains of dyspnoea and palpitation during physical exertion. Auscultation reveals the 1st sound weakened; the 3rd sound and systolic bruit is audible on the apex of the heart. The X-ray research reveals a rounding of arch on the left contour of the heart on the anterior-posterior projection. Establish initial diagnosis.

1. Aortal insufficiency
2. Mitral stenosis
3. Mitral insufficiency
4. Aortal stenosis
5. Endocarditis

14. A 52- year-old man complains of dyspnoea, palpitation, irregularities in the heart, dizziness and periodic faints. Systolic arterial pressure is increased; a rough systolic bruit spreading to carotids is audible in a projection of the aortal valve. Establish initial diagnosis.

1. Mitral insufficiency
2. Aorta valve stenosis
3. Mitral stenosis
4. Aorta valve insufficiency
5. Ischemic heart illness

15. During operation for aortal stenosis the shutter of the aortal valve is changed insignificantly .What type of operation is indicated for the patient?

1. Partial removal of the valve
2. Prosthetic repair of the valve
3. Aortocoronary shunt
4. Endocardial electrostimulation
5. Division of adherent shutters along commissures

16. A 68-year-old man complains of a retrosternal pain which is temporarily arrested after validolum intake. Auscultation reveals weakened heart sounds; any bruits are not audible. Establish initial diagnosis.

1. Mitral stenosis
2. Aorta valve stenosis
3. Ischemic heart illness
4. Mitral insufficiency
5. Endocarditis

17. During operation for ischemic heart illness a segmental narrowing of the coronary arteries was being revealed. What type of operation was indicated for the patient?

1. Division of adherent shutters along commissures
2. Endocardial electrostimulation
3. Partial removal of the valve
4. Aortocoronary shunt
5. Endocardial electrostimulation

18. In a 45-year-old man a general weakness, hypotension, cyanosis of the upper trunk, vein dilatation on the neck developed after blunt trauma of the thorax with fracture of the breastbone. Pleural puncture failed reveal any contents. P: 120/min, is rhythmical and of poor volume. What diagnosis the most likely?

1. Heart tamponade
2. Thromboembolism of the lung artery
3. Concussion of the heart
4. Myocardial infarction
5. Clotted haemopericardium

19. A 54-year-old man was admitted to the hospital with expressed acrosyanosis, dilated cervical veins, enlarged liver and ascites. Boundary lines of the heart are expanded. Heart sounds are not audible; the apical jerk is not being defined. BP: 100/50mmHg. The X-ray of the thorax reveals the shadow of the heart like a trapeze. Which pathology can explain the specified symptoms in the patient?

1. Heart tamponade
2. Exudate pleurisy.
3. The combined heart defect.
4. Acute cardiac insufficiency.
5. Hiatus hernia.

20. Which actions for prevention thromboembolism of pulmonary artery are to be carried out in a 34-year-old woman with acute thrombosis of the right ileac segment?

1. To ligature of the ileac vein.
2. Temporary cava-filter installation.
3. Indirect anticoagulants administration.
4. Implantation of the constant cava-filter.
5. Administration of the direct anticoagulants

21. A 53-year-old man has been admitted to the hospital with complaints to a strong pain in the right leg. It takes place oedema in the foot and leg; convulsive spasm of the calf muscles; increase of body temperature to 38,5°C. She is ill for 3 days. On survey the right leg and foot with skin hyperaemia, is intense and glanced. A circle of the right leg is 5 cm more than left one. Movements are possible, but they are very

painful. On palpation tenderness of the extremities along vascular bundle, in particular in the popliteal fossa is being defined. Pulsation on foot arteries is satisfactory. Establish initial diagnosis.

Varicose expansion of superficial veins in the leg.

1. Acute thrombosis of the big subcutaneous vein in the thigh
2. Acute thrombosis in the popliteal vein.
3. Lericq's syndrome, IIIrd stage.
4. Paget-Schretter's syndrome.

22. A 36-year-old man marks moderate pains and small oedema in the right leg within 3 days. Pains and oedema all over the right leg and foot with expressed cyanosis have suddenly appeared in the upper third of the thigh five hours ago. Objectively: on palpation a sharp tenderness in the upper third of the thigh and infiltration along vascular bundle is being revealed. Establish initial diagnosis.

1. Acute thrombophlebitis of deep veins of the right leg
2. Acute iliofemoral thrombosis on the right
3. Acute thrombophlebitis in the right femoral vein
4. Acute thrombosis of the femoral artery on the right
5. Thromboembolism in the right femoral artery

23. In a patient acute thrombosis in the left iliac vein has developed on the 7th day after operation due to malignant tumour of sigmoid colon. 2 hours has passed after onset of thrombosis. Where and how the patient is to be treated?

1. In the vascular surgery department, operation - thromboectomy
2. Bed regime, anticoagulant therapy
3. In the vascular surgery department, shunting
4. Physiotherapy, anticoagulative therapy in the same department
5. To leave in the same department, antispasmodic drugs, anticoagulants

24. A patient who suffers from heart disease and ciliary arrhythmia a sharp pain in the left leg and foot has suddenly appeared. The foot and the lower third of the leg are pale and cold. Palpation of the leg is painful; tactile sensitivity is reduced; movements are limited; pulsation on the foot arteries is not being defined. Establish initial diagnosis.

1. Acute thrombophlebitis
2. Thrombosis of the femoral artery
3. Acute phlebitis
4. Erysipelatous inflammation
5. Gangrene

25. A two children's Mother complains of softly - elastic nodes on the external surface of the left thigh with transition to the leg and oedema on the foot at the end of a day. After night rest oedema disappears. The onset of illness she links with pregnancy and childbirth. She wears elastic stockings. Establish the initial diagnosis.

1. Varicose dilatation of subcutaneous veins in the left leg
2. Acute thrombophlebitis of deep veins in the left leg
3. Acute thrombophlebitis of superficial veins in the left leg
4. Endarteritis obliterans of the left lower limb
5. Elephantiasis of the left lower limb

26. A 35-year-old woman complains of oedema in the base of toes and in the dorsum of the left foot. She does not mark any pain. Oedema disappears after night sleep. Superficial veins are not dilated. Establish initial diagnosis.

1. Thrombophlebitis of deep veins
2. Lymphostasis, the 2nd stage
3. Thrombophlebitis of superficial veins
4. Lymphostasis, the 1st stage

5. Post-thrombotic syndrome

27. A 28-year-old woman complains of oedema in the right ankle joint area. Oedema is soft, painless and disappears after bed rest; on the skin above oedematous tissues it is easy to form a skin fold. Establish initial diagnosis.

1. Thrombophlebitis
2. Lymphostasis
3. Post-thrombotic syndrome
4. Acute thrombosis
5. Arterial embolism

28. A 50-year-old woman complains of oedema in the right lower extremity which does not disappear in prolonged horizontal position. Palpation of the extremities is painless. Subcutaneous veins are not dilated. The skin is dense; a fold is not being formed. Establish initial diagnosis.

1. Arterial embolism
2. Lymphostasis
3. Thrombophlebitis
4. Acute thrombosis
5. Post-thrombotic syndrome

29. A 53-year-old woman complains of oedema of both lower extremities not disappearing after night sleep. She is ill within 6 years. On objective inspection the lower extremities are thickened; hyperkeratosis and hyperpigmentation of the skin are being defined. Palpation of the extremities is painless. Establish initial diagnosis.

1. Post-thrombotic syndrome
2. Arterial embolism
3. Thrombophlebitis
4. Acute thrombosis
5. Lymphostasis

30. A 48-year-old woman has seen to the doctor with complaints to oedema on the right lower extremity which has increased after prolonged standing and heaviness feeling in the affected extremity. She is ill for 7 years. On survey a hyperpigmentation of the skin with warty growths pays attention to itself. Subcutaneous veins are not being defined. Establish initial diagnosis.

1. Lymphostasis, the 1st stage
2. Lymphostasis, the 2nd stage
3. Thrombophlebitis of superficial veins
4. Thrombophlebitis of deep veins
5. Post-thrombotic syndrome

31. A 43-year-old woman complains of oedema of both lower extremities. Oedema is dense, is not disappearing after night sleep. She is ill for 10 years. On survey the cracks and ulcerations on legs are being defined from which whitish fluid without smell in a small amount is being discharged. The expressed hyperpigmentation of the skin of both extremities is being marked. Establish initial diagnosis.

1. Thrombophlebitis
2. Arterial embolism
3. Lymphostasis
4. Acute thrombosis
5. Post-thrombotic syndrome

32. In a 27-year-old woman the diagnosis of lymphostasis of the left lower extremity of the 1st stage was established. On inspection an authentic organic changes in the lower extremities are not being revealed. What kind of treatment is indicated to the given patient?

1. Radiation therapy
2. Surgical

3. Treatment is not indicated
4. Conservative
5. Prophylactic measures

33. In a 27-year-old woman diagnosis of lymphostasis of the left lower extremity of the 2nd stage was established. What type of surgical treatment is the most effective for given patient?

1. Operation by Felder
2. Full removal of subcutaneous fat
3. Ligation of perforating veins
4. Operation by Narat
5. Straight line lymphovenous anastomosis

34. In a 25-year-old woman elephantiasis of both lower extremities was suspected. What kind of instrumental research the most informative in the given pathology?

1. Venography
2. Lymphography
3. Computer tomography
4. Plain X-ray
5. Radioisotope scanning

35. A 42-year-old lady has a 2cm. firm mass in her right breast, which has been present for three months, and is steadily growing. Establish presumable diagnosis.

1. Lipoma
2. Fibroadenoma.
3. Cyst.
4. Mastopathy
5. Cancer

36. A 19-year-old woman noted a lump in her right breast yesterday during a self-exam. She denies any nipple discharge, pain, or skin changes. She has no family history of breast cancer. Menstrual history is unremarkable. The patient is not currently sexually active, and the only medication she takes regularly is birth control pills, which she started 2 months ago. Her right breast has a well circumscribed, 2-cm, rubbery, and mobile mass in the lower outer quadrant of the breast. There are no changes in the skin, nor is there is evidence of nipple discharge or retraction. The remainder of the exam is unremarkable, and lymphadenopathy is appreciated. T: 36,6⁰C ; BP: 120/70; RR: 16/min; P: 66/min. Tests: HB: 140 g/L; WBC's: 7400/μL; Platelet count: 190,000/μL. Establish diagnosis.

1. Cystic mastopathy of the right mammary gland
2. Fibroadenoma
3. Cyst in the right mammary gland.
4. Cancer in the right mammary gland.
5. Galactocele

37. A 58-year-old woman is troubled by skin changes on her right breast. She says the skin around her right nipple become red and "crusty" over the past few months. The patient does not perform self-breast exam, but says she has not noticed any lumps in her breast. The woman has no children. Her menstrual history is unremarkable. She mentions that she has two sisters and an aunt who died of breast cancer. The patient's chest is clear to auscultation. Her right nipple has an eczematoid, scaly appearance with some crusting. You palpate a fairly firm, 1,5-cm mass with somewhat irregular margins in the upper, outer quadrant of the right breast. The mass is not fixed to the chest wall. There are no palpable axillary lymph nodes. T: 36,6⁰C; BP: 150/90; RR: 14/min; P: 72/min. Tests: HB: 150 g/L; WBC's: 6600/μL; AST: 0,5 mmol/L; Right breast mammogram: see figure. Establish diagnosis.



1. Mastitis
2. Cyst
3. Cancer
4. Nodular mastopathy
5. Fibroadenoma

38. A 22-year-old woman presents with a chief complaint of lumps in her breast and breast pain and tenderness. She says her breasts have been lumpy and uncomfortable for several years now. However, the symptoms went away during her recent pregnancy and subsequent breast-feeding of her daughter, which she stopped 4 months ago. The patient says the breast pain and tenderness, as well as some swelling, occur every month at the same time as her other premenstrual symptoms, which include bloating and irritability. Symptoms then resolve during menses. The patient denies nipple discharge or skin changes. Both breasts have a lumpy, nodular consistency; however, no dominant masses are identified. The breasts are fairly symmetric and slightly tender to palpation. There are no changes in the skin. No lymphadenopathy is appreciated. T: 36,6⁰C; BP: 120/70; RR: 14/min; P: 70/min. Tests: HB: 130 g/L; WBC's: 7000/ μ L; Platelet count: 220,000/ μ L. Establish diagnosis.

1. Fibrocystic mastopathy
2. Breast cancer
3. Milk cyst
4. Chronic mastitis
5. Tuberculosis of the mammary gland

39. A 42-year-old lady has a 2cm. firm mass in her right breast, which has been present for three months, and is steadily growing. The presumable diagnosis of breast cancer is established. Administer management.

1. Chemo-radiation treatment
2. Fine - fractional TGT + Hallstead's operation
3. Mammogram to identify other lesions if present.
4. Hallstead's operation + chemotherapy.
5. Urban-Holding's operation.

40. Incisional biopsy of a breast mass in a 35-year-old woman demonstrates a hypercellular fibroadenoma (cystosarcoma phylloides) at the time of frozen section. Appropriate management of this lesion could include

1. Wide local excision with a rim of normal tissue
2. Lumpectomy and axillary lymphadenectomy
3. Modified radical mastectomy
4. Excision and postoperative radiotherapy
5. Excision, postoperative radiotherapy, and systemic chemotherapy

41. A 47-year-old woman is troubled by skin changes on her left breast. She says the skin around her left nipple become red and "crusty" over the past few months. The left nipple is unaffected. The patient does not perform self-breast exam, but says she has not noticed any lumps in her breast. The woman has no children. Her menstrual history is unremarkable, other than the fact that she just went through menopause earlier this year. The patient's chest is clear to auscultation. Her right nipple has an eczematoid, scaly appearance with some crusting. You palpate a fairly firm, 2-cm mass with somewhat irregular margins in the upper, outer quadrant of the left breast. The mass is not fixed to the chest wall. There are no palpable axillary lymph nodes. The rest of exam is normal. T: 36,6⁰C; BP: 130/90; RR: 16/min; P: 78/min. Tests: HB: 140 g/L; WBC's: 7500/ μ L; AST: 0,4 mmol/L; left breast mammogram: see figure. The diagnosis of Paget's disease is established. Which treatment will be the most effective?

1. Chemo-radiation treatment

2. Fractional TGT + Hallstead's operation
3. Lumpectomy with axillary node dissection + radiation.
4. Hallstead's operation + chemotherapy.
5. Urban-Holding's operation.

42. A 40-year-old woman is found to have a 1- to 2-cm, slightly tender cystic mass in her breast; she has no perceptible axillary adenopathy. What course would you follow?

1. Reassurance and reexamination in the immediate postmenstrual period
2. Immediate excisional biopsy
3. Aspiration of the mass with cytologic analysis
4. Fluoroscopically guided needle localization biopsy
5. Mammography and reevaluation of options with new information

43. A 21-year-old woman noted a lump in her left breast during a self-exam. She denies any nipple discharge, pain, or skin changes. She has no family history of breast cancer. Menstrual history is unremarkable. The patient is not currently sexually active, and the only medication she takes regularly is birth control pills, which she started 2 months ago. Her left breast has a well circumscribed, 1.5-cm, rubbery, and mobile mass in the lower outer quadrant of the breast. There are no changes in the skin, nor is there is evidence of nipple discharge or retraction. The remainder of the exam is unremarkable, and lymphadenopathy is appreciated. T: 36,6⁰C; BP: 120/60; RR:18/min; P: 78/min. Tests: HB: 150 g/L; WBC's: 6000/ μ L; Platelet count: 200,000/ μ L. The diagnosis of fibroadenoma of the left breast is established. Which treatment will be the most effective?

1. Chemo-radiation treatment
2. Fractional TGT + Hallstead's operation
3. Urban-Holding's operation.
4. Hallstead's operation + chemotherapy.
5. Lumpectomy.

44. A 35-year-old woman undergoes her first screening mammogram. Which of the following mammographic findings would require a breast biopsy?

1. Breast calcifications larger than 2 mm in diameter
2. Five or more clustered breast microcalcifications per square centimeter
3. A density that effaces with compression
4. Saucer-shaped microcalcifications
5. Multiple round well-circumscribed breast densities

45. A 32-year-old woman presents with a chief complaint of difficulty swallowing. Her dysphagia has become gradually worse over the last 6 months and is equal for solids and liquids. She also mentions bouts of severe chest pain when drinking ice water. She denies heartburn, fever, exertional chest pain, and dyspnoea, but does admit to a 5-pound weight loss during the last 6 month, primarily due to eating less because of the difficulty and chest pain she has when attempting to eat. She also mentions occasional regurgitation of undigested food when she lies down to go to sleep at night. The physical exam is unremarkable. T: 36,6⁰C; BP: 110/70; RR: 12/min; P: 62/min. Tests: HB: 140g/L; WBC's: 7300/ μ L; ESR: 8 mm/h; EKG: normal sinus rhythm with no abnormalities. Barium swallow: see figure. Establish diagnosis.



1. Achalasia of the oesophagus
2. Diverticulum of the oesophagus
3. Chhalasia of the oesophagus
4. Cancer of the oesophagus
5. Foreign body in the oesophagus

46. A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An oesophagram reveals a “bird’s beak” deformity. Which of the following statements is true about this condition?

1. Chest pain is common in the advanced stages of this disease
2. More patients are improved by forceful dilation than by surgical intervention
3. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
4. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
5. Patients with this disease are at no increased risk for the development of carcinoma

47. A 62-year-old African-American man reports progressive dysphagia that started three months ago with difficulty swallowing meat, and progressed to inability to swallow other solid foods, then soft foods and now liquids. He has lost over 25 lbs. during that time. He has a history of heavy smoking and drinking. Establish initial diagnosis.

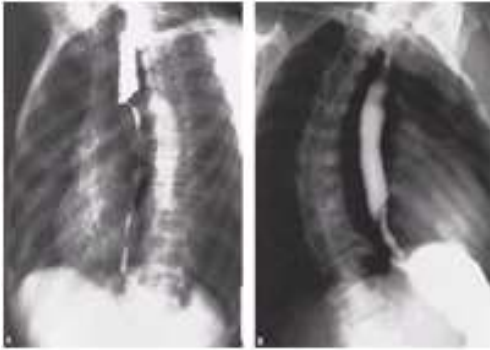
1. Achalasia of the oesophagus
2. Diverticulum of the oesophagus
3. Chhalasia of the oesophagus
4. Tumour of the oesophagus
5. Foreign body in the oesophagus

48. A stockbroker in his midforties consults you with complaints of episodes of severe, often incapacitating chest pain on swallowing. The diagnostic studies on the esophagus you have ordered yield the following: endoscopic examination and biopsy—mild inflammation distally; manometry —prolonged high-amplitude contractions from the arch of the aorta distally, lower esophageal sphincter (LES) pressure 20 mm Hg with relaxation on swallowing; barium swallow—2-cm epiphrenic diverticulum. You would recommend

1. Myotomy from level of aortic arch to distal sphincter; no disruption of LES
2. Diverticulectomy, myotomy from level of aortic arch to fundus, fundoplication
3. Diverticulectomy, cardiomyotomy of distal 3 cm of esophagus and proximal 2 cm of stomach with antireflux fundoplication
4. A trial of calcium channel blockers
5. Pneumatic dilation of LES

49. A 62-year-old black man is experiencing difficulty swallowing. He says that problem began with solid foods a few months ago, but now he has trouble with liquids as well. He also admits to poor appetite, fatigue, and 15-kg weight loss over the last few months, and mentions that his voice recently became hoarse. The patient has not seen a doctor in several years, but denies any medical problems. Social history includes a 60-pack-year tobacco history and daily alcohol consumption. The man is cachectic and has slightly icteric sclerae. No adenopathy is appreciated. Heart and lungs

are normal. Abdominal exam is remarkable for loose-appearing skin on the abdominal wall and an enlarged liver with a palpable liver edge 4 cm below the costal margin. Rectal exam reveals haeme-positive stool. T: 36,6⁰C; BP: 118/68; RR: 18/min; P: 94/min. Tests: Hb: 90 g/L; WBC's: 6900/ μ L. Barium oesophagram: see figure. Establish initial diagnosis.



1. Achalasia of the oesophagus
2. Diverticulum of the oesophagus
3. Chalkasia of the oesophagus
4. Cancer of the oesophagus
5. Foreign body in the oesophagus

50. Several days following oesophagectomy a patient complains of dyspnea and chest tightness. A large pleural effusion is noted on chest radiograph and thoracentesis yields milky fluid consistent with chyle. Initial management of this patient consists of which of the following procedures?

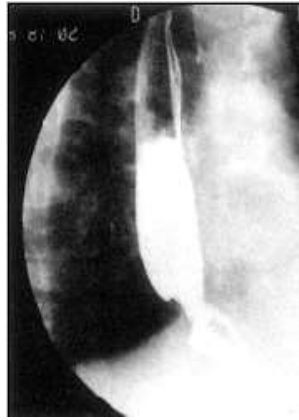
1. Immediate operation to repair the thoracic duct
2. Immediate operation to ligate the thoracic duct
3. Tube thoracostomy and low-fat diet
4. Observation and low-fat diet
5. Observation and antibiotics

51. A 42-year-old man presents with a chief complaint of difficulty swallowing. His dysphagia has become gradually worse over the last 3 months and is equal for solids and liquids. He also mentions bouts of severe chest pain when drinking ice water, and occasional regurgitation of undigested food when he lies down to go to sleep at night. The physical exam is unremarkable. T: 36,6⁰C; BP: 120/70; RR: 16/min; P: 78/min. Tests: HB: 130g/L; WBC's: 8300/ μ L; ESR: 7 mm/h; EKG: normal sinus rhythm with no abnormalities. Barium swallow: see figure. The diagnosis of achalasia of the oesophagus is established. Choose the most rational management.



1. Cardiodilatation by Shtark's rigid dilatator
2. Operation of extramucosal oesophagocardiomyotomy with plasty by the gastric fundus.
3. Cardiodilatation with balloon dilatator.
4. Barium swallow first, then endoscopy and biopsies, eventually CT scan to determine operability.
5. Cardioresection with oesophagogastric anastomosis.

52. A 57-year-old black man is experiencing difficulty swallowing. He says that problem began with solid foods a few months ago, but now he has trouble with liquids as well. He also admits to poor appetite, fatigue, and 20-kg weight loss over the last few months, and mentions that his voice recently became hoarse. Social history includes a 40-pack-year tobacco history and daily alcohol consumption. The man is cachectic and has slightly icteric sclerae. Abdominal exam is remarkable for loose-appearing skin on the abdominal wall and an enlarged liver with a palpable liver edge 5 cm below the costal margin. Rectal exam reveals heme-positive stool. T: 36,6⁰C; BP: 120/70; RR: 22/min; P: 96/min. Tests: HB: 72 g/L; WBC's: 7900/ μ L. Barium oesophagram: see figure. The diagnosis of esophageal cancer is established. What is the most effective treatment for this patient?



1. Cardiodilatation by Shtark's rigid dilatator
2. Operation of extramucosal oesophagocardiomyotomy with plasty by the gastric fundus.
3. Cardioresection with oesophagogastric anastomosis
4. Operation of oesophagofundus anastomosis by Gairovskiy.
5. Cardiodilatation with balloon dilatator.

53. A 40-year-old man complains of dyspnoea, dry cough, and general weakness. On objective inspection acrocyanosis is being defined; on palpation a “cat’s purr” symptom is being detected in the projection of the heart apex. Auscultation reveals a strengthening of 1st sound; the sound of mitral valve opening is audible on the apex. Establish initial diagnosis.

1. Aorta valve insufficiency
2. Mitral insufficiency
3. Aorta valve stenosis
4. Mitral stenosis
5. Endocarditis

54. In a patient during operation due to mitral stenosis an expressed fibrous changes in shutters and calcification of mitral valve has not been revealed. What type of operation is indicated for the patient?

1. Closed mitral commissurotomy
2. Prosthetic repair of the valve
3. Aortocoronary shunt
4. Endocardiac electrocardiostimulation
5. Partial removal of the valve

55. A 52-year-old woman complains of dyspnoea and palpitation during physical exertion. Auscultation reveals the 1st sound weakened; the 3rd sound and systolic bruit is audible on the apex of the heart. The X-ray research reveals a rounding of arch on the left contour of the heart on the anterior-posterior projection. Establish initial diagnosis.

1. Aortal insufficiency
2. Mitral stenosis
3. Mitral insufficiency
4. Aortal stenosis
5. Endocarditis

56. A 52-year-old man complains of dyspnoea, palpitation, irregularities in the heart, dizziness and periodic faints. Systolic arterial pressure is increased; a rough systolic bruit spreading to carotids is audible in a projection of the aortal valve. Establish initial diagnosis.

1. Mitral insufficiency
2. Aorta valve stenosis
3. Mitral stenosis
4. Aorta valve insufficiency
5. Ischemic heart illness

57. During operation for aortal stenosis the shutter of the aortal valve is changed insignificantly .What type of operation is indicated for the patient?

1. Partial removal of the valve
2. Prosthetic repair of the valve
3. Aortocoronary shunt
4. Endocardial electrostimulation
5. Division of adherent shutters along commissures

58. A 68-year-old man complains of a retrosternal pain which is temporarily arrested after validolum intake. Auscultation reveals weakened heart sounds; any bruits are not audible. Establish initial diagnosis.

1. Mitral stenosis
2. Aorta valve stenosis
3. Ischemic heart illness
4. Mitral insufficiency
5. Endocarditis

59. During operation for ischemic heart illness a segmental narrowing of the coronary arteries was being revealed .What type of operation was indicated for the patient?

1. Division of adherent shutters along commissures
2. Endocardial electrostimulation
3. Partial removal of the valve
4. Aortocoronary shunt
5. Endocardial electrostimulation

60. In a 45-year-old man a general weakness, hypotension, cyanosis of the upper trunk, vein dilatation on the neck developed after blunt trauma of the thorax with fracture of the breastbone. Pleural puncture failed reveal any contents. P: 120/min, is rhythmical and of poor volume. What diagnosis the most likely?

1. Heart tamponade
2. Thromboembolism of the lung artery
3. Concussion of the heart
4. Myocardial infarction
5. Clotted haemopericardium

61. A 54-year-old man was admitted to the hospital with expressed acrosyanosis, dilated cervical veins, enlarged liver and ascites. Boundary lines of the heart are expanded. Heart sounds are not audible; the apical jerk is not being defined. BP: 100/50mmHg. The X-ray of the thorax reveals the shadow of the heart like a trapeze. Which pathology can explain the specified symptoms in the patient?

1. Heart tamponade
2. Exudate pleurisy.
3. The combined heart defect.
4. Acute cardiac insufficiency.
5. Hiatus hernia.

62. Which of the following statements is true concerning aortocoronary bypass grafting?

1. It is indicated for crescendo (preinfarction) angina
2. It is indicated for congestive heart failure
3. It is not indicated for chronic disabling angina
4. It is associated with a 10% operative mortality
5. It is only indicated if significant triple vessel disease is documented angiographically

63. A 67-year-old woman with peripheral vascular disease, bilateral leg claudication, and hypertension comes to the clinic because of nausea and severe, diffuse abdominal pain that she rates as 7/10 in intensity

for the past 2 days. The pain is related to meals, particularly lunch. She has smoked a pack of cigarettes per day for the past 30 years. The patient has a temperature of 36.1 C/(97 F) with a pulse of 80/min and a blood pressure of 120/80 mm Hg. Abdominal examination demonstrates normal bowel sounds, no tenderness, and no hepatosplenomegaly. Laboratory studies reveal a leukocyte count of 4,000/mm³ and a hematocrit of 47%. You should be immediately suspicious of:

1. acute appendicitis
2. acute cholecystitis
3. malingering
4. mesenteric ischemia
5. ulcerative colitis

64. A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is:



1. Staphylococcal enterocolitis
2. Diverticulitis
3. Bleeding AV malformation
4. Ischemia of the left colon
5. Bleeding colonic carcinoma

65. A 67-year-old woman with peripheral vascular disease, bilateral leg claudication, and hypertension comes to the clinic because of nausea and severe, diffuse abdominal pain that she rates as 7/10 in intensity for the past 2 days. The pain is related to meals, particularly lunch. She has smoked a pack of cigarettes per day for the past 30 years. The patient has a temperature of 36.1 C/(97 F) with a pulse of 80/min and a blood pressure of 120/80 mm Hg. Abdominal examination demonstrates normal bowel sounds, no tenderness, and no hepatosplenomegaly. Laboratory studies reveal a leukocyte count of 4,000/mm³ and a haematocrit of 47%. You should be immediately suspicious of

1. acute appendicitis
2. acute cholecystitis
3. malingering
4. mesenteric ischemia
5. ulcerative colitis

66. A 63-year-old car salesman is having difficulty doing his job. He works at a large, suburban used-car lot which is about 3 blocks long. When he walks about 1/2 a block, he gets severe cramping pain in his right calf, and must stop and rest for the pain to go away. As soon as he has walked another 1/2 block, pain recurs. He is the sole supporter of his family and he is about to be fired. He does not smoke. Establish the initial diagnosis.

1. Deep vein thrombosis
2. Protruded intervertebral disk.
3. Arthritis.
4. Intermittent claudication, from vascular disease.
5. Lerish's syndrome.

67. A 25-year-old man is troubled by a periodic pain in legs. Objectively: on legs and thighs there are numerous cyanotic stains with phenomena of inflammation, local oedema which partly passes to the

necrotic sites. Pulsation on the main arteries is saved. Ht: 45 %, prothrombin : 90 %, Fibrinogen A : 5,33 g/l, Fibrinogen B : ++. What from listed diagnoses is the most probable?

1. Thrombangitis obliterans
2. Atherosclerosis obliterans
3. Endarteritis obliterans
4. Raynaud's disease
5. Nodulated periarteritis

68. A 39-year-old man has been admitted with complaints to fast fatigability, cold sensation in the lower extremities and occurrence of a pain in the leg muscles at walking 300 m. The patient considers that he has been ill for 6 years and associates the onset of the illness with general overcooling. The patient's general state is satisfactory. P: 72 /min, is rhythmical. BP: 115/70 mmHg. Cardiac sounds are rhythmical. Skin of the lower extremities on the feet and on the lower third of the leg is with pale shade, is cold at touch, with poor hair growth on the leg; the skin is thin and dry. Pulsation on the arteries of the lower extremity is being defined on the femoral artery, on popliteal one it is weakened, on the feet arteries it is absent. Pulsation on the right femoral and popliteal arteries is satisfactory; on the foot arteries it is absent. What initial diagnosis is the most probable?

1. Nonspecific aorto-arteritis.
2. Atherosclerosis obliterans of the lower extremities.
3. Raynaud's disease.
4. Endarteritis obliterans of the lower extremities.
5. Diabetic angiopathy.

69. A 57-year-old man called the doctor of the ambulance at home because of acute pain, numbness, skin pallor, snap of the left limb suddenly appeared 40 minutes ago. Patient connects pain appearance with physical exertion (during digging in the kitchen garden). From the anamnesis it was found out, that he has been already marking difficult walking (a sign of «intermitting claudication») within 4 years. The doctor diagnosed acute arterial occlusion of the extremity. What is the cause of the disease in the patient?

1. Atherosclerosis obliterans of the extremity
2. Endarteritis obliterans
3. Deforming arthroso-arthritis of the extremity
4. Osteochondrosis of the lumbar compartment of the backbone
5. Chronic venous failure of the extremity

70. A 35-year-old man, a smoker, complains of periodic pains in fingers and toes after general overcooling of extremities that aggravate at excitement and during the cold year period. Objectively: the fingers and toes have cyanotic colour with insignificant oedema. Pulsation on the main arteries is saved. Blood glucose: 5,5 mmol/l. Establish the initial diagnosis.

1. Endarteritis obliterans
2. Thrombangiitis obliterans
3. Raynaud's disease
4. Atherosclerosis obliterans
5. Nodulated periarteritis

71. A 65-year-old woman who is ill for 30 years complains of periodic pains in the legs intensifying at walking, in particular during the cold year period. Objectively: the toes have got a cyanotic colour, feet and legs are cold, skin on them is thin, and pulsation on the femoral and popliteal arteries is sharply weakened. The most probable diagnosis:

1. Thrombangiitis obliterans
2. Atherosclerosis obliterans
3. Endarteritis obliterans
4. Raynaud's disease

5. Nodulated periarteritis

72. A 59-year-old man is having difficulty doing his job. He works at a large, suburban used-car lot which is about 3 blocks long. When he walks about 1/2 a block, he gets severe cramping pain in his right calf, and must stop and rest for the pain to go away. As soon as he has walked another 1/2 block, pain recurs. The diagnosis of intermittent claudication, from vascular disease is established. Choose the most rational management.

1. Angioplasty and stenting
2. Popliteal-leg autovenous shunting
3. Implantation of the femoro-popliteal prosthesis
4. Conservative treatment
5. Sympathectomy

73. A 60-year-old man complains of a pain in the right limb which arises at walking; without stopping he can walk about 150m. He marks cold and numbness sensation in the right foot. Objectively: the skin of toes of the right foot is pale, its temperature is decreased. Pulsation on the femoral arteries is satisfactory; on the right popliteal one it is absent. What is the most probable diagnosis?

1. Lericq's syndrome
2. Acute thrombophlebitis of subcutaneous vein on the right
3. Thrombangeitis obliterans
4. Atherosclerosis obliterans of vessels of the lower extremities, an occlusion of the popliteal-femoral segment on the right
5. Endarteritis obliterans

74. A 28-year-old man complains of nodulose dilatation of the subcutaneous veins on the back surface of the right foot, on the anterior-internal surface of the right leg and thigh, heaviness in the right leg at the end of a day, cramps in the calf muscles at night. Objectively: frank dilatation of the subcutaneous veins in vertical position which empty in horizontal position and completely empty in elevated position of the right limb is being noted. Establish initial diagnosis.

1. Parks-Weber's syndrome
2. Varicose illness, chronic venous failure in the stage of subcompensation
3. Klippel-Trenaubner's syndrome
4. Acute thrombophlebitis
5. Post-thrombotic syndrome

75. A 62-year-old man complains of severe pains, a feeling of numbness and cold in the left lower extremity appeared suddenly three hours ago. Within one year he has been marking a hypersensitivity to cooling and pains in this extremity during walking. Left foot and leg have got a marble discoloration, the subcutaneous veins are emptied. The foot is cold, active movements in the foot and toes are in full amplitude. Pulse is only being palpated on the femoral artery. Above it a rough systolic bruit is being listened. Establish the initial diagnosis.

1. Acute iliofemoral arterial thrombosis
2. Endarteritis obliterans.
3. Stenosis of the left popliteal artery.
4. Acute thrombophlebitis
5. Arteritis of the left femoral artery

76. A 53-year-old woman has been admitted to the surgical department with complaints to oedema of the left lower extremity which has appeared 2 weeks ago after physical exertion. From the anamnesis: she has been suffering from varicose phlebectasia of the lower extremities for 20 years. On survey the left lower extremity is oedematous: the thigh is thickened to 10 cm, the leg is done to 7cm; active movements and sensitivity are saved. Doppler ultrasound reveals thrombosis in the common femoral vein with the phenomena of flotation. What kind of medical tactics is the most expedient?

1. Endovascular cava-filter implantation
2. Urgent thrombectomy
3. Conservative treatment
4. Elective thrombectomy
5. Palma's operation

77. A patient complains of oedema of the right foot and leg. The disease began from sudden pains and oedema in the leg 1,5 month ago. The cause of his applying to the doctor was varicose veins and pigmentation on the internal surface of the leg. Establish the initial diagnosis.

1. Ileo-femoral phlebothrombosis
2. Acute thrombophlebitis of the superficial veins
3. Post-thrombotic syndrome of the right leg
4. Varicose illness of the right lower extremity.
5. Arteriovenous dysplasia.

78. A 36-year-old woman complains of a pain in the left leg, its enlargement in size, more in evenings. She underwent deep vein thrombosis of this extremity 5 years ago. On inspection: the extremity is enlarged; a brown pigmentation is being noted. There is a trophic ulcer 2 cm in diameter on the internal surface of the leg. Your variant of operative treatment.

1. Venectomy by Narat
2. Palma's operation.
3. Ligation of the superficial veins by Shede-Kocher.
4. Linton's operation.
5. Venectomy by Madelung.

79. A 35-year-old man suffers from post-thrombotic syndrome of the left lower extremity. There is varicose dilatation of subcutaneous veins in the left leg and in the thigh. The extremity is painful and oedematous. Phlebography reveals occlusion in the femoral vein. Management.

1. Conservative treatment
2. Linton's operation.
3. Ligation of the superficial veins by Shede-Kocher.
4. Hjusney's operation.
5. Venectomy by Madelung.

80. A 47-year-old woman underwent acute deep vein thrombosis in the ileac segment on the right 3 years ago. Sometimes a pain, heaviness, frank oedema in the right lower extremity troubles her. Inspection reveals frank oedema on the thigh and on the leg, brown pigmentation and induration of skin on the lower third of the leg and varicose dilated superficial veins on the leg. Your variant of surgery.

1. Palma's operation.
2. Linton's operation
3. Ligation of the superficial veins by Shede-Kocher.
4. Venectomy by Narat.
5. Venectomy by Madelung.

81. A 30-year-old woman is troubled by strong pains in the left lower extremity and its fast fatigability, in particular in vertical position. About one year ago varicose dilatation of the superficial veins of the left leg, which shortly began to accompany by mentioned signs, has appeared. Inspection reveals failure of valves of the superficial and perforating veins. Your variant of treatment.

1. Venectomy by Narat
2. Operation by Troyanov - Trendelenburg.
3. Venectomy by Babcock.
4. Operation by Kokett.

5. All listed methods of treatment.

82. In a 64-year-old man carcinoma of the stomach has been diagnosed. She is being prepared for radical operation. It takes place post-thrombotic syndrome, oedematous-pain form as accompanying pathology; there was thromboembolism of pulmonary artery 3 years ago in the past. Indicate the most effective method of prophylaxis of recurrent thromboembolism of pulmonary artery after radical operation on the stomach.

1. Application elastic bandaging on extremities in the postoperative period
2. Heparin therapy in the postoperative period
3. Applying Unn's zincum-gelatinous bandage in the preoperative period
4. Administration the indirect anticoagulants in the pre-and postoperative period
5. Implantation of the cava-filter in the preoperative period

83. On the seventh post-operative day after pinning of a broken hip, a 72-year-old lady develops sudden, sever chest pain and shortness of breath. The pain is accentuated by deep breathing. She is anxious, diaphoretic and tachycardic, and she has prominent, visibly distended veins in her neck and forehead.

Diagnosis:

1. Pulmonary embolus
2. Atelectasis
3. Pulmonary edema
4. Pneumonia
5. Myocardial infarction

84. On the seventh post-operative day after pinning of a broken hip, a 72-year-old lady develops sudden; sever chest pain and shortness of breath. The pain is accentuated by deep breathing. She is anxious, diaphoretic and tachycardic, and she has prominent, visibly distended veins in her neck and forehead.

Diagnosis is pulmonary embolism. Management.

1. Pulmonary angiography
2. Plain X-ray
3. Ultrasound
4. CT scan
5. Contrast X-ray of the oesophagus

85. A 65-year-old woman has a life-threatening pulmonary embolus 5 days following removal of a uterine malignancy. She is immediately heparinized and maintained in good therapeutic range for the next 3 days, then passes gross blood from her vagina and develops tachycardia, hypotension, and oliguria. Following resuscitation, an abdominal CT scan reveals a major retroperitoneal haematoma. You should now

1. Immediately reverse heparin by a calculated dose of protamine and place a vena cava filter (e.g., a Greenfield filter)
2. Reverse heparin with protamine, explore and evacuate the hematoma, and ligate the vena cava below the renal veins
3. Switch to low-dose heparin
4. Stop heparin and observe closely
5. Stop heparin, give fresh frozen plasma (FFP), and begin warfarin therapy

86. Prophylactic regimens of documented benefit in decreasing the risk of postoperative thromboembolism include

1. Early ambulation
2. External pneumatic compression devices placed on the upper extremities
3. Elastic stockings
4. Leg elevation for 24 h postoperatively
5. Dipyridamole therapy for 48 h postoperatively

87. An obese 50-year-old woman undergoes a laparoscopic cholecystectomy. In the recovery room she is found to be hypotensive and tachycardic. Her arterial blood gases reveal a pH of 7.29, partial pressure of oxygen of 60 kPa, and partial pressure of CO₂ of 54 kPa. The most likely cause of this woman's problem is Acute pulmonary embolism

1. CO₂ absorption from induced pneumoperitoneum
2. Alveolar hypoventilation
3. Pulmonary edema
4. Atelectasis from high diaphragm

88. If a patient suffered a pulmonary arterial air embolism during an open thoracotomy, the anesthesiologist's most likely observation would be

1. Unexpected systemic hypertension
2. Rising right atrial filling pressures
3. Reduced systemic arterial oxygen saturation
4. Rising systemic CO₂ partial pressures
5. E Falling end-tidal CO₂

89. The etiologic factor implicated in the development of pulmonary insufficiency following major nonthoracic trauma is

1. Aspiration
2. Atelectasis
3. Fat embolism syndrome
4. Fluid overload
5. Pneumonia

90. An abnormal ventilation/perfusion ratio (Qs/Qr) in the postoperative patient has been associated with

1. Pulmonary thromboembolism
2. Lower abdominal surgery
3. Starvation
4. The upright position
5. Increased cardiac output

91. Indications for placement of the device pictured in the abdominal x-ray shown below include



1. Recurrent pulmonary embolus despite adequate anticoagulation therapy
2. Axillary vein thrombosis
3. Pulmonary embolus in a patient with a perforated duodenal ulcer
4. Pulmonary embolus due to deep vein thrombosis of the lower extremity that occurs 2 wk postoperatively
5. Pulmonary embolus in a patient with metastatic pancreatic carcinoma

92. In a 9-months-old child with destructive pneumonia his general state has suddenly worsened: breathlessness increased, an anxiety appeared; the body temperature increased to $38,4^{\circ}\text{C}$. The X-ray of the thorax reveals a homogeneous shadow up to the third rib on the left; mediastinal organs are displaced to the right. The most probable diagnosis.
1. Pneumonia
 2. Tension Pyopneumothorax
 3. Pyothorax
 4. Diaphragmatic hernia
 5. Lung atelectasis
93. A 45-year-old man with acute abscess in the left lung complains of strong pains in the chest, breathlessness and palpitation during coughing. The X-ray reveals collapse of the left lung and air in the left pleural cavity with horizontal fluid level. What is the mechanism of development of the given complication?
1. Bulla rupture of the left lung
 2. Abscess rupture into the pleural cavity
 3. Transition of inflammation to the visceral pleura
 4. Atelectasis of the left lung
 5. Acute cardiac-pulmonary insufficiency
94. A 37-year-old man has been admitted with complaints to cough with discharge of purulent sputum to 150 ml/day, pains in the right half of the chest and an increase of body temperature up to 38°C . He is ill for 2 weeks. One day before his admission 300 of ml purulent sputum with unpleasant smell had discharged during attack of coughing. On survey: a shortness of percussive pulmonary sound is being revealed under the right scapula; there is reduced vesicular breathing in the same place. Establish initial diagnosis:
1. Acute lung abscess
 2. Acute bronchitis
 3. Chronic abscess
 4. Bronchiectasias
 5. Empyema of pleura
95. A 42-year-old man has been transported into the surgery department from the therapeutic one where he was being treated for acute abscess in the upper lobe of the right lung for two months. He was treated with intramuscular introduction of antibiotics, sulphonamides. Alleviation is insignificant. There is a cough with 80-100 ml/day purulent sputum discharge with unpleasant smell; the body temperature has increased ($37,6^{\circ}\text{C}$). Establish initial diagnosis.
1. Suppurative polycystosis
 2. Acute abscess in the right lung
 3. Tubercular cavity
 4. Hollow form of lung cancer
 5. Chronic lung abscess
96. A 39-year-old man has fell ill sharply; after overcooling the body temperature has increased to 40°C ; pains in the right half of the thorax, vomiting with sputum discharge with putrefactive smell have appeared. He abuses smoking and alcohol. Objectively: the general state is heavy; body temperature of 39°C and signs of purulent intoxication and respiratory insufficiency are

expressed. The X-ray reveals cavities of different sizes with horizontal fluid levels on the background of a massive shadow in the upper and middle lobe. Establish initial diagnosis

1. Empyema of pleura
2. Lung abscess
3. Hollow form of cancer
4. Lung gangrene
5. Tubercular cavities

97. A 45-year-old man complains of breathlessness and cough with purulent sputum discharge, amount of which has increased up to 100-120 ml/day after flu that he had 2,5 weeks ago. The body temperature increased to 38°C. Yesterday there were strong pains in the right half of the chest and expressed breathlessness. P: 112/min, BP: 90/55 mmHg. Expressed acrocyanosis is being marked. RR: 42/min. On survey a diminishing chest wall movement on the right during breathing is present. Percussion reveals dullness of percussion sound. On auscultation breathing above the right lung is not being listened. Which of the listed diagnoses correspond to given clinical presentation?

1. Pneumonia associated lung abscess
2. Lung fever.
3. Pyopneumothorax.
4. Acute lung abscess.
5. Lung gangrene.

98. A patient who has been ill with chronic abscess in the right lung for 6 months complains of a sharp sudden pain in the right half of the chest and breathlessness that has developed two hours ago. He has been brought by the ambulance. The general state is heavy. The patient is in compelled sitting position. The skin is cyanotic. RR: 44/min; P: 108/min, BP: 90/55mmHg. A diminishing chest wall movement on the right during breathing is being noticed. On percussion a dullness of pulmonary sound is being defined up to 4th rib. On auscultation respiratory sounds above the right lung are not being listened. The most probable pathology.

1. Pyopneumothorax
2. Empyema of pleura
3. Abscess.
4. Pneumothorax
5. Lung gangrene.

99. A 40-year-old man slept within 4-5 hours in the street after alcohol intake. 2 days later his body temperature gradually increased to 39°C and pains appeared in the chest. Over 2 weeks 200 ml of pus with unpleasant smell suddenly discharged during cough. Establish initial diagnosis.

1. Acute lung abscess
2. Bronchiectasia
3. Pleurisy
4. Exacerbation of chronic bronchitis
5. Lung cancer with pneumonitis development

100. A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an air-fluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is

1. Placement of a left chest tube
2. Immediate thoracotomy
3. Immediate laparotomy
4. Esophagogastrosocopy
5. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

101. A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side. The first step in managing the patient should be to

1. Take a chest x-ray
2. Draw arterial blood for blood gas determination
3. Decompress the right pleural space
4. Perform pericardiocentesis
5. Administer intravenous fluids

102. 31-year-old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or haemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

1. Tracheostomy, mechanical ventilation, and positive end-expiratory pressure
2. Stabilization of the chest wall with sandbags
3. Stabilization with towel clips
4. Immediate operative stabilization
5. No treatment unless signs of respiratory distress develop

103. A 36-year-old woman, 20 wk pregnant, presents with a 1.5-cm right thyroid mass. Fine-needle aspiration is consistent with a papillary neoplasm. The mass is “cold” by scan and solid by ultrasound. Which method of treatment would be contraindicated?

1. Right thyroid lobectomy
2. Subtotal thyroidectomy
3. Total thyroidectomy
4. Total thyroidectomy with lymph node dissection
5. ¹³¹I radioactive ablation

104. 4. A 62-year-old man is experiencing hoarseness that developed over the last few weeks. The patient denies pain, fever, and recent sick contacts. His past medical history includes hypertension, arthritis, and benign prostatic hypertrophy. He also mentions that as an adolescent he had had acne on his face and neck, for which he was treated with radiation therapy. The patient’s voice is hoarse sounding. Neck exam reveals a single, stony-hard, 2cm nodule in the thyroid gland. The patient mentions that he first noticed the lump a month ago while buttoning up his shirt and that is grown fairly quickly to its current size. You also discern fixed, hard lymphadenopathy in the neck adjacent to the thyroid gland. The rest of the physical exam is unremarkable. T: 36,6⁰C; BP: 140/80; RR: 16/min; P: 74/min. Tests: Hb: 140 g/L; WBC’s: 6900/μL; platelet count: 270, 000/μL; Thyroid-stimulating hormone: 2,1μU/mL (normal 0,5-5,0); thyroxine, total: 7μg/dL (normal 4-12). Nuclear I¹²³ thyroid scan: see figure. Establish diagnosis.

1. Endemic goiter
2. Diffuse toxic goiter, light thyrotoxicosis.
3. Autoimmune thyroiditis, hypothyroidism.
4. Diffuse toxic goiter, moderate thyrotoxicosis
5. Thyroid cancer



105. A 23-year-old woman undergoes total thyroidectomy for carcinoma of the thyroid gland. On the second postoperative day, she begins to complain of tingling sensation in her hands. She appears quite anxious and later complains of muscle cramps. Initial therapy should consist of

1. 10 mL of 10% magnesium sulfate intravenously
2. Oral vitamin D
3. 100 µg of oral Synthroid
4. Continuous infusion of calcium gluconate
5. Oral calcium gluconate

106. A 32-year-old lady has a solitary, 2cm firm mass in the right lobe of her thyroid gland. The mass has been present for at least three years, and is growing very slowly. Her thyroid function tests are normal. Diagnosis

1. Endemic goiter
2. Diffuse toxic goiter, light thyrotoxicosis.
3. Autoimmune thyroiditis, hypothyroidism.
4. Diffuse toxic goiter, moderate thyrotoxicosis
5. Thyroid cancer

107. A 25-year-old lady has a solitary, 2cm firm mass in the right lobe of her thyroid gland. The mass has been present for at least two years, and is growing very slowly. Her thyroid function tests are normal. The diagnosis of nodular goiter is established. What kind of research methods will allow to choose correct medical tactics for the patient?

1. Biopsy of the formation with morphological research
2. Indicator method
3. Scintiscan with tumourotropic radiopharmaceutical
4. Electronic-emission tomography
5. Thermography of the thyroid gland

108. A 50-year-old woman is experiencing hoarseness that developed over the last few weeks. The patient denies pain, fever, and recent sick contacts. His past medical history includes hypertension and arthritis. The patient's voice is hoarse sounding. Neck exam reveals a single, stony-hard, 3cm nodule in the thyroid gland. The patient mentions that he first noticed the lump a month ago You also discern fixed, hard lymphadenopathy in the neck adjacent to the thyroid gland. T: 36,6⁰C; BP: 160/90; RR: 18/min; P: 78/min. Tests: Hb: 150 g/L; WBC's: 5900/µL; platelet count: 270, 000/µL; Thyroid-stimulating hormone: 4,1µU/mL (normal 0,5-5,0); thyroxine, total: 10µg/dL (normal 4-12). The diagnosis of thyroid cancer is established. What management do you offer to the patient?

1. Iodine therapy in microdoses (1-2 mkg)
2. Use food, riches with tyrosine
3. Refusal of smoking
4. Thyroidectomy
5. Regular surveys by the doctor

109. A 78- years -old man suffers from thrombophlebitis of superficial veins of the right thigh. He is ill within 3 days. All this time he has been noting a progressing inflammation from the lower to the upper third of the thigh. On survey a painful cord is being defined on the internal surface of the right thigh; the skin above it is hyperaemic. What kind of operative intervention is indicated for the patient?
1. Troyanov's operation
 2. Babcock's operation
 3. Muller's operation
 4. Hjusney's operation
 5. Palma's operation
110. Two children's Mother complains of softly-elastic nodes on the external surface of the left thigh with spread to the leg and oedema on the foot at the end of a day. After night sleep oedema disappears. The beginning of illness she links with pregnancy and childbirth. She wears elastic stockings. Establish the initial diagnosis.
1. Acute thrombophlebitis of deep veins of the left leg
 2. Varicose dilatation of subcutaneous veins of the left leg
 3. Acute thrombophlebitis of superficial veins of the left leg
 4. Endarteritis obliterans of the left lower extremity
 5. Elephantiasis of the left lower extremity
111. A 30- years- old woman is troubled by a strong pain in the left lower extremity, its fast fatigue, in particular in a vertical position. A varicose dilatation of the superficial veins on the left leg appeared about one year ago. On inspection an insufficiency of valves of superficial and perforating veins has been revealed. Your variant of treatment.
1. Venectomy by Narat
 2. Operation by Troyanov - Trendelenburg.
 3. Venectomy by Babcock.
 4. Operation by Kocket.
 5. All listed methods of treatment.
112. In a 46 years old with varicose illness of the lower extremities profuse bleeding from varicose node in the lower third of the leg in trophic ulcer zone was diagnosed. What kind of first aid is the most correct?
1. Arterial tourniquet proximally of the ulcer
 2. Tourniquet distally of the ulcer, a bandage
 3. Tourniquet proximally of the ulcer, a bandage
 4. A bandage, manual pressing of varicose node
 5. Elevated position of the extremity, aseptic compression bandage
113. In a 42-year-old woman primary varicose dilatation of the right big saphena vein with valve insufficiency was diagnosed. What kind of operation is the most rational?
1. Troyanov – Trendelenburg's, Babcock's, Narat's operation,
 2. Troyanov – Trendelenburg's operation
 3. Madelung's operation
 4. Madelung's, Troyanov – Trendelenburg's operation
 5. Linton's, Kocket's, Narat's operation
114. A 65-year-old woman is ill with varicose illness of subcutaneous veins of the lower extremities within 25 years. On clinical examination a trophic ulcer covered by fibrin without

signs of infection has been revealed on the middle third of the right leg. Which method of treatment is to be applied?

1. Bandages with Furacilinum solution
2. Local application of "Levomicol" ointment
3. Saphenoectomy
4. Elastic bandaging
5. Autodermoplasty

115. A 47-year-old woman complains of heaviness sensation in the lower extremities, fast fatigue in them at standing and walking which disappears in horizontal position. Objectively: dilatation of superficial veins on the left leg and the thigh with pigmentation and skin trophic changes is being defined. What kind of functional test of examination is to be begun in the patient with?

1. Troyanov – Trendelenburg's
2. Prat - 2
3. Prat - 1
4. Three-tourniquet test
5. Delbe-Pertes' test

116. In a 60 years old who suffers from varicose veins of the lower extremities a pain and oedema has appeared in the left leg in a day later after insignificant trauma of the leg. The body temperature increased to 37,5°C . Along the big subcutaneous vein on the leg a hyperaemia and a painful cordlike site of induration is being defined. Establish diagnosis.

1. Haematoma
2. Acute phlebitis
3. Lymphangitis
4. Acute thrombophlebitis
5. Erysipelas inflammation

117. The Delbe-Pertes' test allows to define:

1. Passability of deep veins
2. Impairment of ostial valve function in the big saphena vein
3. Passability_of perforating veins
4. Passability_of subcutaneous veins
5. A degree of ischemia of examined segment

118. A patient has been admitted to the surgical hospital with the diagnosis of strangulated left-sided femoral hernia. The patient complained of a strong pain under inguinal ligament where a painful induration was being defined. On inspection the varicose veins in the left leg were revealed. There is a thrombophlebitis in the past. What is your diagnosis and tactics of treatment?

1. Acute thrombosis of varicose node of the big saphena vein. Surgical treatment.
2. Acute thrombosis of varicose node of the big saphena_vein. Conservative treatment.
3. Strangulated femoral hernia. Surgical treatment.
4. Inguinal lymphadenitis. Surgical treatment.
5. Inguinal lymphadenitis. Conservative treatment.

119. The correlation between pulmonary capillary wedge pressure (PCWP) and left ventricular end diastolic pressure (LVEDP) as measured by pulmonary artery catheterization may be adversely affected by Aortic stenosis

1. Aortic regurgitation
2. Coronary artery disease
3. Positive-pressure ventilation with positive end-expiratory pressure/ continuous positive airway pressure (PEEP/CPAP)
4. Bronchospasm

120. A 72-year-old man undergoes resection of an abdominal aneurysm. He arrives in the ICU with a core temperature of 33°C (91.4°F) and shivering. The physiologic consequence of the shivering is

1. Rising mixed venous oxygen saturation
2. Increased production of carbon dioxide
3. Decreased consumption of oxygen
4. Rising base excess
5. Decreased minute ventilation

121. Central venous pressure (CVP) may be decreased by

1. Pulmonary embolism
2. Hypervolemia
3. Positive-pressure ventilation
4. Pneumothorax
5. Gram-negative sepsis

122. The etiologic factor implicated in the development of pulmonary insufficiency following major nonthoracic trauma is

1. Aspiration
2. Atelectasis
3. Fat embolism syndrome
4. Fluid overload
5. Pneumonia

123. A noncyanotic 2-day-old child has a systolic murmur along the left sternal border; the examination is otherwise normal. Chest x-ray and electrocardiogram are normal. These findings are most closely associated with which of the following congenital cardiac anomalies?

1. Tetralogy of Fallot
2. Ventricular septal defect
3. Tricuspid atresia
4. Transposition of the great vessels
5. Patent ductus arteriosus

124. A 3-year-old child with congenital cyanosis is most probably suffering from

1. Tetralogy of Fallot
2. Ventricular septal defect
3. Tricuspid atresia
4. Transposition of the great vessels
5. Patent ductus arteriosus

125. A 56-year-old woman was treated for 3 years for wheezing on exertion, which was diagnosed as asthma. The chest radiograph below is obtained, which reveals a midline mass compressing the trachea. The most likely diagnosis is



1. Lymphoma
2. Neurogenic tumor
3. Lung carcinoma
4. Goiter
5. Pericardial cyst

126. Which of the following statements is true concerning aortocoronary bypass grafting?

1. It is indicated for crescendo (preinfarction) angina
2. It is indicated for congestive heart failure
3. It is not indicated for chronic disabling angina
4. It is associated with a 10% operative mortality
5. It is only indicated if significant triple vessel disease is documented angiographically

127. Which of the following statements is true regarding the thoracic outlet syndrome?

1. It is associated with cervical spine disk disease
2. It is reliably diagnosed by positional obliteration of the radial pulse
3. If conservative measures fail, it is best treated by surgical decompression of the brachial plexus
4. It most commonly affects the median nerve
5. It can be reliably ruled out by angiography

128. For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

1. Renal scan
2. Aortogram
3. Left heart preload pressures
4. Urinary sodium concentration
5. Creatinine clearance

129. A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is



1. Staphylococcal enterocolitis
2. Diverticulitis
3. Bleeding AV malformation
4. Ischemia of the left colon
5. Bleeding colonic carcinoma

130. During evaluation for the repair of an expanding abdominal aortic aneurysm, a patient is discovered to have a horseshoe kidney. The optimum surgical approach would be

1. Midline abdominal incision, preservation of the renal isthmus
2. Midline abdominal incision, division of the renal isthmus
3. Retroperitoneal approach, implantation of anomalous renal arteries
4. Nephrectomy, repair of aneurysm, chronic dialysis
5. Repair of aneurysm after autotransplantation of the kidney into the iliac fossa

131. A 67-year-old woman with peripheral vascular disease, bilateral leg claudication, and hypertension comes to the clinic because of nausea and severe, diffuse abdominal pain that she rates as 7/10 in intensity for the past 2 days. The pain is related to meals, particularly lunch. She has smoked a pack of cigarettes per day for the past 30 years. The patient has a temperature of 36.1 C/(97 F) with a pulse of 80/min and a blood pressure of 120/80 mm Hg. Abdominal examination demonstrates normal bowel sounds, no tenderness, and no hepatosplenomegaly. Laboratory studies reveal a leukocyte count of 4,000/mm³ and a hematocrit of 47%. You should be immediately suspicious of

1. acute appendicitis
2. acute cholecystitis
3. malingering
4. mesenteric ischemia
5. ulcerative colitis