

## Cardiovascular diseases and derangements of haemodynamics

1

Autopsy of a 73-year-old man who had been suffering from the coronary heart disease along with cardiac insufficiency for a long time revealed: nutmeg liver, brown induration of lungs, cyanotic induration of kidneys and spleen. What kind of circulation disorder was the cause of such effects?

- A** General chronic venous congestion
- B** Arterial hyperaemia
- C** General acute venous congestion
- D** Acute anaemia
- E** Chronic anaemia

2

A patient died under conditions of cardiovascular insufficiency. Autopsy results: postinfarction cardiosclerosis, myocardium hypertrophy and dilatation of its cavities, especially of its right ventricle. Liver is enlarged, its surface is smooth, incision revealed that it was plethoric, with dark-red specks against the background of brownish tissue. Histologically: plethora of central parts of lobules; perithelial parts around portal tracts contain hepatocytes in a state of adipose degeneration. How are these liver changes called?

- A** Nutmeg liver
- B** Pseudonutmeg liver
- C** Amyloidosis
- D** Liver cirrhosis
- E** Liver steatosis

3

Patient suffering from thrombophlebitis of the deep veins suddenly died. Autopsy has shown freely lying red friable masses with dim crimped surface in the trunk and bifurcation of the pulmonary artery. What pathologic process was revealed by morbid anatomist?

- A** Tromboembolism

**B** Thrombosis

**C** Tissue embolism

**D** Embolism with foreign body

**E** Fat embolism

4

2 hours after a skeletal extension was performed to a 27 year old patient with multiple traumas (closed injury of chest, closed fracture of right thigh) his condition abruptly became worse and the patient died from acute cardiopulmonary decompensation.

Histological examination of pulmonary and cerebral vessels stained with Sudan III revealed orange drops occluding the vessel lumen. What complication of polytrauma was developed?

**A** Fat embolism

**B** Gaseous embolism

**C** Microbial embolism

**D** Thromboembolism

**E** Air embolism

5

In course of severe respiratory viral infection there appeared clinical signs of progressing cardiac insufficiency that caused death of a patient in the 2nd week of disease. Autopsy revealed that the heart was sluggish, with significant cavity dilatation. Histological examination of myocardium revealed plethora of microvessels and diffuse infiltration of stroma by lymphocytes and histiocytes. What disease corresponds with the described picture?

**A** Myocarditis

**B** Stenocardia

**C** Acute coronary insufficiency

**D** Myocardium infarction

**E** Cardiomyopathy

6

Autopsy of a 49-year-old woman who died from chronic renal insufficiency, revealed:

kidneys were dense, reduced, multicoloured, with haemorrhagic areas. Microscopic examination revealed some hematoxylin bodies in the nuclei of the renal tubule epithelium; "wire-loop" thickening of the glomerular capillary basement membrane; here and there in the capillaries some hyaline thrombi and foci of fibrinoid necrosis were present. What is the most likely diagnosis?

- A** Systemic lupus erythematosus
- B** Rheumatism
- C** Arteriosclerotic pneumosclerosis
- D** Amyloidosis
- E** Atherosclerotic nephrosclerosis

7

Autopsy of a man who died from influenza revealed that his heart was slightly enlarged, pastous, myocardium was dull and had specks. Microscopical examination of myocardium revealed signs of parenchymatous adipose and hydropic dystrophy; stroma was edematic with poor macrophagal and lymphocytic infiltration, vessels were plethoric; perivascular analysis revealed petechial hemorrhages. What type of myocarditis was developed in this case?

- A** Serous diffuse
- B** Interstitial proliferative
- C** Serous focal
- D** Purulent
- E** Granulomatous

8

Examination of coronary arteries revealed atherosclerotic calcific plaques that close vessel lumen by 1/3. The muscle has multiple whitish layers of connective tissue. What process was revealed in myocardium?

- A** Diffuse cardiosclerosis
- B** Tiger heart
- C** Postinfarction cardiosclerosis

**D** Myocarditis

**E** Myocardium infarction

9

A 63 year old male patient who had been suffering from chronic diffuse obstructive disease, pulmonary emphysema, for 15 years died from cardiac insufficiency. Autopsy revealed nutmeg liver cirrhosis, cyanotic induration of kidneys and spleen, ascites, edemata of lower limbs. These changes of internal organs are typical for the following disease:

**A** Chronic right-ventricular insufficiency

**B** Acute right-ventricular insufficiency

**C** Chronic left-ventricular insufficiency

**D** Acute left-ventricular insufficiency

**E** General cardiac insufficiency

10

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