**1. What is the term for extravasation of water into the interstitial space:**

1. hyperemia
2. hemorrhage
3. edema
4. embolism
5. infarction

**2. Which of the following types of edema is more commonly known as ascites:**

1. hydrothorax
2. hydrocephalus
3. hydrosalpinx
4. hydropericardium
5. hydroperitoneum

**3. Which of the following are NOT parts of the Virchow thrombosis triad:**

1. abnormal blood flow
2. hypercoagulability
3. reduction of clotting factors
4. endothelial injury
5. hypocoagulability

**4. Which of the following is the most likely to cause a fat embolism:**

1. reposition of shoulder luxation
2. healing of a chemical burn
3. healing of a heat burn
4. a broken femur
5. congestive heart failure

**5. What is the most common site of origin of pulmonary thromboemboli:**

1. cavity of the left ventricle
2. deep veins of lower extremities
3. cavity of the right ventricle
4. mesenteric veins
5. superficial veins of lower extremities

**6. “Nutmeg Liver “occurs in:**

1. liver cirrhosis
2. liver necrosis
3. chronic passive congestion.
4. thrombosis of the portal vein
5. hepatitis

**7. Hyperemia is characterized by the following:**

1. increased blood flow
2. impaired blood flow
3. develops during exercises
4. it is a passive process
5. it is an active process

**8. Congestion is characterized by the following:**

1. characterizes inflammation
2. develops due to impaired blood outflow
3. it is a passive process
4. it is an active process
5. develops during exercises

**9. Coughing with blood is named:**

1. hematochezia
2. melena
3. hematuria
4. hemoptysis
5. hematemesis

**10. Thrombus is characterized by the following:**

1. it is attached to the vascular wall
2. it is friable
3. it is formed during life
4. it is elastic
5. it is made after death

**11. Cloth is characterized by the following:**

1. It is not attached to the vascular wall
2. it is friable
3. it is formed during life
4. it is elastic
5. it is made after death

**12. Consequences of thrombosis are:**

1. resorption
2. organization
3. congestion
4. thromboembolism
5. cyanosis

**13. Ischemia may lead to:**

1. myocardial infarction
2. liver congestion
3. gangrene of lower extremities
4. stroke
5. acrocyanosis

**14. Tick the ischemia causes:**

1. arterial thrombosis
2. venous thrombosis
3. embolism
4. stroke
5. infarction

**15. Systemic venous congestion is consequence of:**

1. left heart failure
2. right heart failure
3. pulmonary congestion
4. atherosclerosis
5. arteriolosclerosis

**16. A thrombus is composed of:**

1. fibrin
2. platelets
3. red blood cells
4. leukocytes
5. Willebrand factor

**17. Which of the following is chronic congestion of spleen:**

1. brown induration
2. cyanotic induration
3. nutmeg spleen
4. fatty spleen
5. sago spleen

**18. Which of the following are the microscopic changes of nutmeg liver:**

1. selective congestion in the periphery of lobule
2. selective centrilobular congestion
3. centrilobular hemorrhage
4. centrilobular necrosis of hepatocytes
5. centrilobular hypertrophy of hepatocytes

**19. Blood in stool is called:**

1. epistaxis
2. hematemesis
3. hemoptysis
4. metrorrhagia
5. melena

**20. Tick the main causes of hemorrhages:**

1. exicosis
2. vascular wall erosion
3. vascular wall rupture
4. blood stasis in the vessels
5. thrombosis

**21. Identify types of generalized edema:**

1. cardiac
2. cerebral
3. renal
4. hepatic
5. pulmonary

**22. Chronic lymphatic stasis is followed by:**

1. elephantiasis
2. tissue hypoxia
3. hemomelanosis
4. sclerosis
5. amyloidosis

**23. Identify morphological variants of interstitial hemorrhages:**

1. hematoma
2. hemorrhagic infiltration
3. echimosis
4. apoplexy
5. petechia

**24. Which of the following are the changes of brown pulmonary congestion:**

1. hemomelanosis
2. hemosiderosis
3. sclerosis
4. amyloidosis
5. petechia

**25. Consequences of hemorrhages are:**

1. suppuration
2. encapsulation
3. chylothorax
4. cysts formation
5. melena

**26. Hepatic vein obstruction leads to:**

1. hyperemia
2. liver congestion
3. nutmeg liver
4. hemochromatosis
5. amyloidosis

**27. The types of external hemorrhage are:**

1. hemoptysis
2. petechia
3. hemoperitoneum
4. melena
5. hemothorax

**28. Femoral artery obstructive thrombosis leads to:**

1. ischemia
2. congestion
3. anemia
4. gangrene
5. lymphorrhea

**29. Interstitial accumulation of edematous liquid is called:**

1. ascites
2. anasarca
3. hydrocele
4. hydropericardium
5. hydrocephalus

**30. Air embolism develops in the following cases:**

1. carotid artery injury
2. neck vein injury
3. pneumothorax
4. jugular vein injury
5. carotid artery aterosclerosis

**31. The favorable consequences of thrombosis include:**

1. aseptic autolysis
2. septic autolysis
3. thromboembolism
4. thrombo-bacterial embolism
5. organization

**32. Colliquative necrosis is found in the following organs:**

1. myocardium
2. brain
3. spleen
4. kidneys
5. spinal cord

**33.Thrombus can be:**

1. paradoxical
2. parietal
3. occlusive
4. lipidic
5. tissular

**34. Paradoxical embolism may develop in the following cases:**

1. atrial septal defect
2. ventricular septal defect
3. arteriovenous shunts
4. well-developed collateral circulation
5. aortic wall defect

**35. As regards the localization of myocardial infarction in ventricular wall is classified into:**

1. subendocardial
2. chordal
3. intramural
4. transmural
5. atrial

**36. Lower extremity veins thrombus usually is delivered to:**

1. vena cava inferior
2. jugular vein
3. portal vein
4. right atrium
5. pulmonary artery

**37. A thrombus can be:**

 **a.** white with red border

 **b.** white

 **c.** mixed

 **d.** postmortem

 **e.** red

**38. Conical shaped infarcts are usually formed in the:**

1. brain
2. intestine
3. kidneys
4. lungs
5. spleen

**39. The favorable outcomes of thrombosis include:**

1. septic autolysis
2. thromboembolism
3. recanalization
4. vascularization
5. organization

**40. Most common location of hematogenous metastasis of intestinal carcinoma is into the:**

1. lungs
2. heart
3. liver
4. spleen
5. kidneys

**41. Which of the following are bacterial embolism sources:**

purulent thrombophlebitis

1. phlebothrombosis
2. septic endocarditis
3. septic autolysis of thrombus
4. aseptic autolysis of thrombus

**42. Fatty lung embolism develops in the following cases:**

1. fatty liver degeneration
2. fracture of the tubular bone
3. subcutaneous tissue crash
4. atherosclerotic plaque ulceration
5. alimentary obesity

**43. Gas embolism develops in:**

1. vein injury
2. ammoniac intoxication
3. rapid decompression
4. carbon monoxide poisoning
5. pneumothorax

**44. Acute congestion of the pulmonary circulation develops in:**

 **a.** decompensated myocardial hypertrophy

1. cardiac defects
2. cardiosclerosis
3. myocardial infarction
4. atherosclerosis

**45. Thrombosis is caused by the followings:**

1. vascular wall injury
2. increased blood viscosity
3. slowing of blood flow
4. slowing of lymphatic flow
5. accelerating arterial flow

**46. What is the cause of oncotic edema:**

 **a.** congestive heart failure

  **b.** acute inflammation.

 **c.** neurohumoral dysregulation

 **d.** malnutrition

 **e.** renal hypoperfusion

**47. What is the cause of hydrostatic edema:**

 **a.** congestive heart failure

 **b.** acute inflammation.

  **c.** neurohumoral dysregulation

 **d.** malnutrition

  **e**. renal hypoperfusion

**48. Which kind of cells are "heart failure cells":**

 **a.** macrophages

 **b.** lymphocytes

  **c.** leukocytes

 **d.** cardiomyocytes

 **e.** histiocytes

**49. Which sign is characteristic for the left cardiac insufficiency:**

  **a.** hepatomegaly

  **b.** splenomegaly

 **c.** ascites

 **d.** inferior limbs edema

 **e.** dyspnea

**50. All the listed clinical signs are characteristic for the right cardiac insufficiency, EXCEPT for:**

  **a.** pulmonary edema

 **b.** ascites

  **c.** nutmeg liver

 **d.** chronic venous stasis of the spleen

 **e.** chronic venous stasis of kidneys

**51. Which of the pathological processes listed below usually associate with mitral insufficiency:**

 **a.** thrombosis of pulmonary veins

 **b.** thromboembolism of pulmonary artery

 **c.** pulmonary edema

  **d.** fibrinous pleuritis

 **e.** cardiac tamponade

**52. Which of the listed signs is characteristic for the infarction caused by venous occlusion:**

 **a.** it can be white or red

 **b.** it occurs only in the lungs

 **c.** it is always red (hemorrhagic)

 **d.** it is always white (ischemic)

 **e.** it is white with hemorrhagic border

**53. As a rule, the pulmonary infarction is:**

 **a.** white

  **b.** liquefied

 **c.** bilateral

 **d.** septic

 **e.** hemorrhagic

**54. What pathological process may develop in the liver during the progress of cardiac insufficiency:**

 **a.** complete recovery

 **b.** subtotal necrosis

 **c.** stasis cirrhosis

 **d.** chronic hepatitis

 **e.** biliary stasis