

VOLGOGRAD STATE
MEDICAL UNIVERSITY
Department of Pathological Anatomy

Blood circulation disorders. Stasis. Thrombosis. Embolism. Shock. Ischemia.

Volgograd, 2020

Lesson plan.

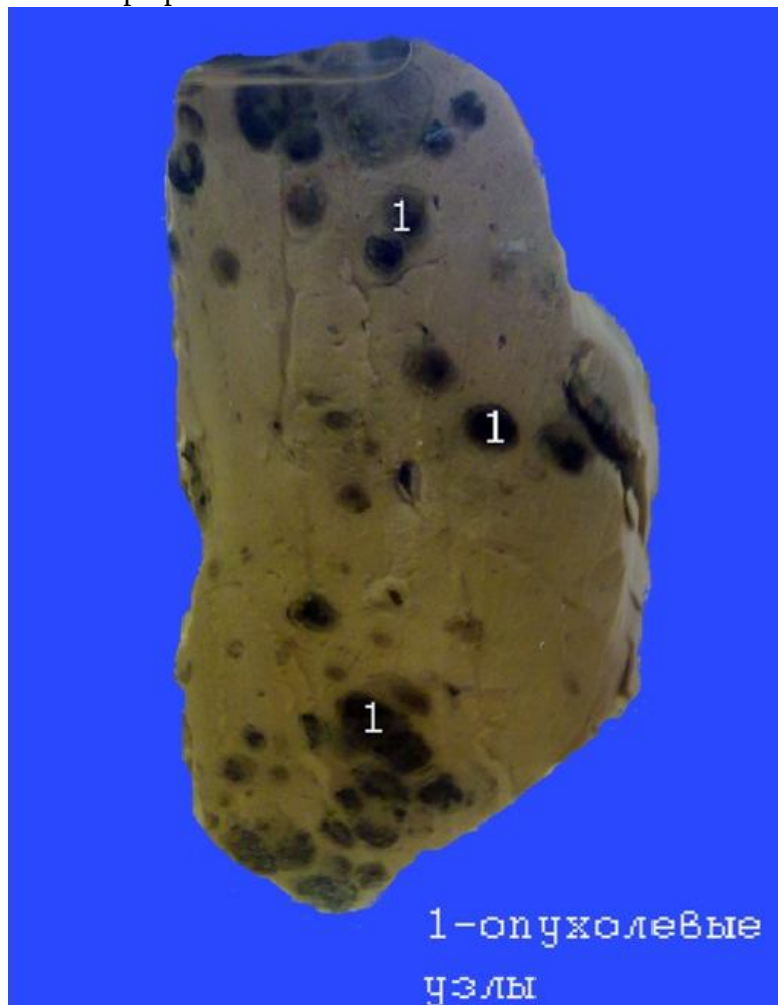
Explore and describe:

1. Macropreparation "Mixed obstructing thrombus in the aorta."



Examine the mixed thrombus in the aorta on a macroscopic picture. Describe the macro-preparation "Mixed obstructing thrombus in the aorta". Mark the color, characterize the surface of the thrombus. Determine its relation to the lumen of the vessel and intima.

2. Macropreparation "Metastasis of melanoma in the liver".



Examine tissue embolism in the liver by a macroscopic picture. To describe the macro-preparation "Metastasis of melanoma in the liver". Reveal the presence and number of metastases. Mark the color, shape, size of the nodes. Describe the cut surface.

3. Additionally. Macropreparation "Myocardial infarction with rupture".



To study myocardial infarction on a macroscopic picture. Describe the macropreparation "Ruptured myocardial infarction." Determine the zone of infarction by the characteristic macroscopic features. Identify signs of myocardial rupture and cardiac tamponade.

4. Macropreparation "Pulmonary embolism".



To study pulmonary thromboembolism according to the macroscopic picture. Describe the macropreparation "Pulmonary embolism". Mark the color, size, characterize the surface of the thromboembolus. Determine its relation to the lumen of the vessel and intima.

5. Macropreparation "Hemorrhagic pulmonary infarction".



To study hemorrhagic pulmonary infarction according to the macroscopic picture. To describe the macro-preparation "Hemorrhagic pulmonary infarction". Determine the shape, color, relation to the pleura of the infarction zone.

6. Additionally: Macropreparation "Ischemic spleen infarction".

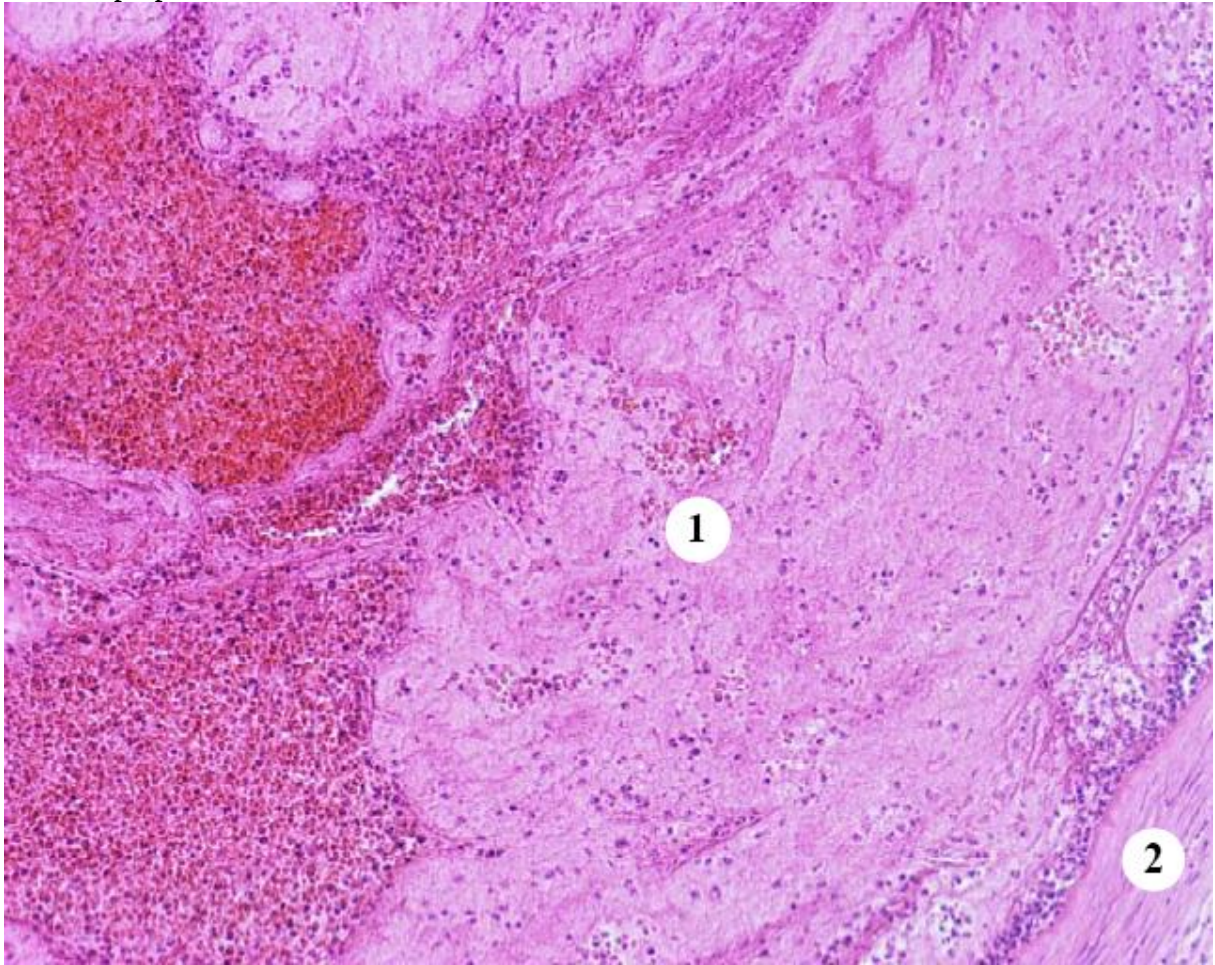


To study ischemic spleen infarction according to the macroscopic picture. To describe the macropreparation "Ischemic spleen infarction". Determine the shape, color, relation to the capsule of the infarction zone.

Micropreparations:

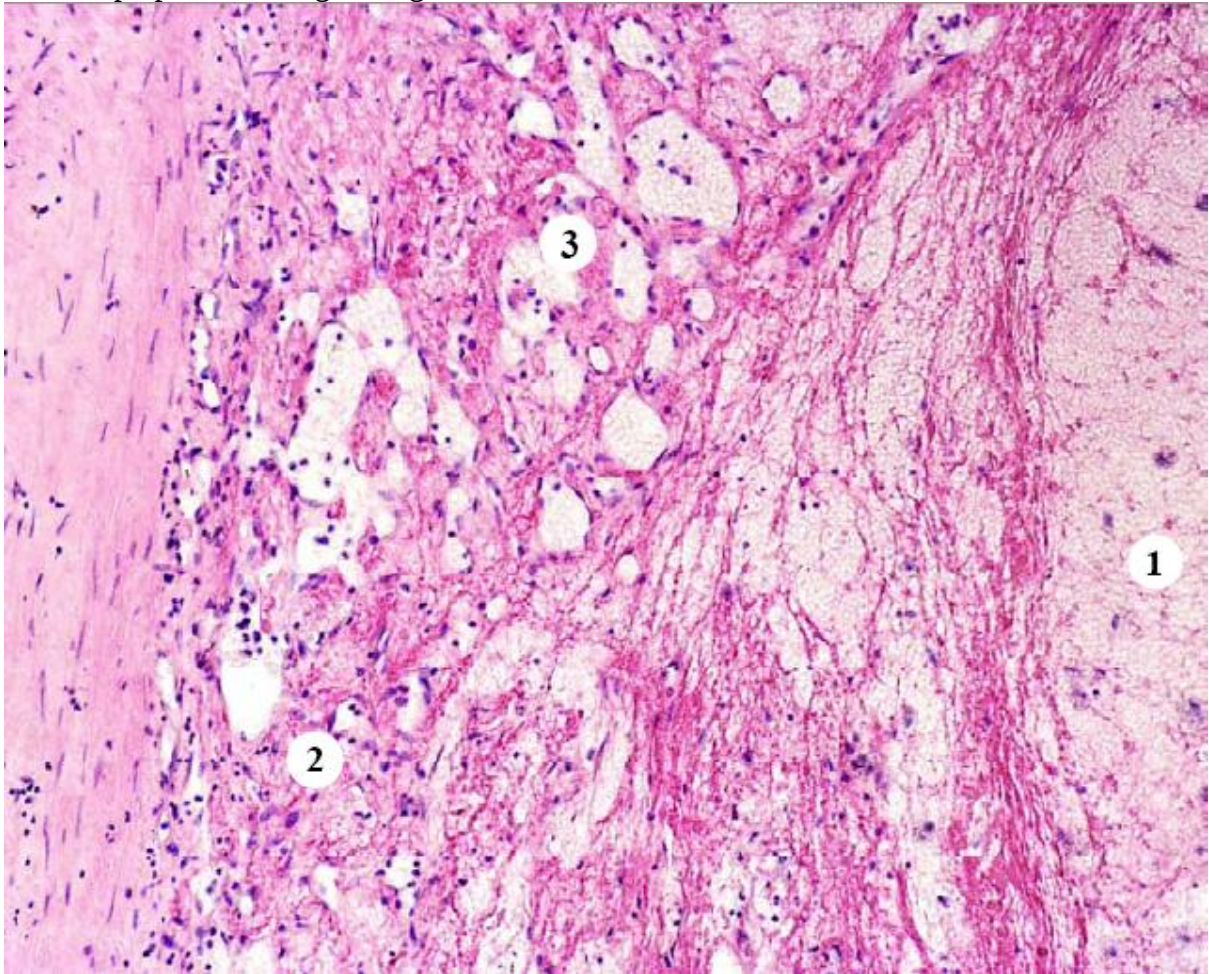
Explore and draw:

1. Micropreparation "Mixed thrombus in a vessel."



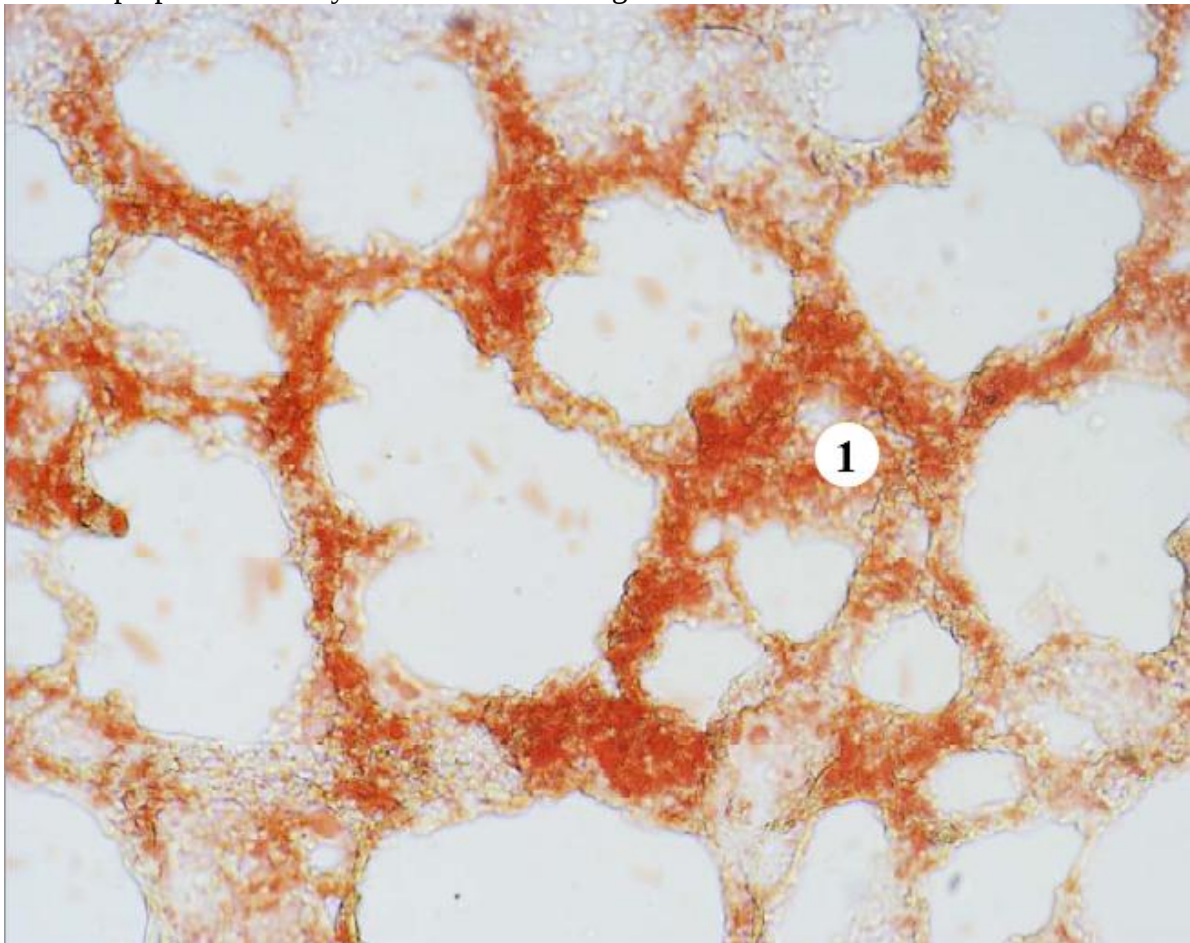
Examine a mixed blood clot in a vessel using a microscopic picture. Describe the micropreparation "Mixed thrombus in a vessel" (staining with hematoxylin and eosin). Pay attention to the state of the vessel lumen, the structure of the thrombus, the presence of fibrin, platelets, erythrocytes, leukocytes, the site of endothelial damage.

2. Micropreparation "Organizing blood clot".



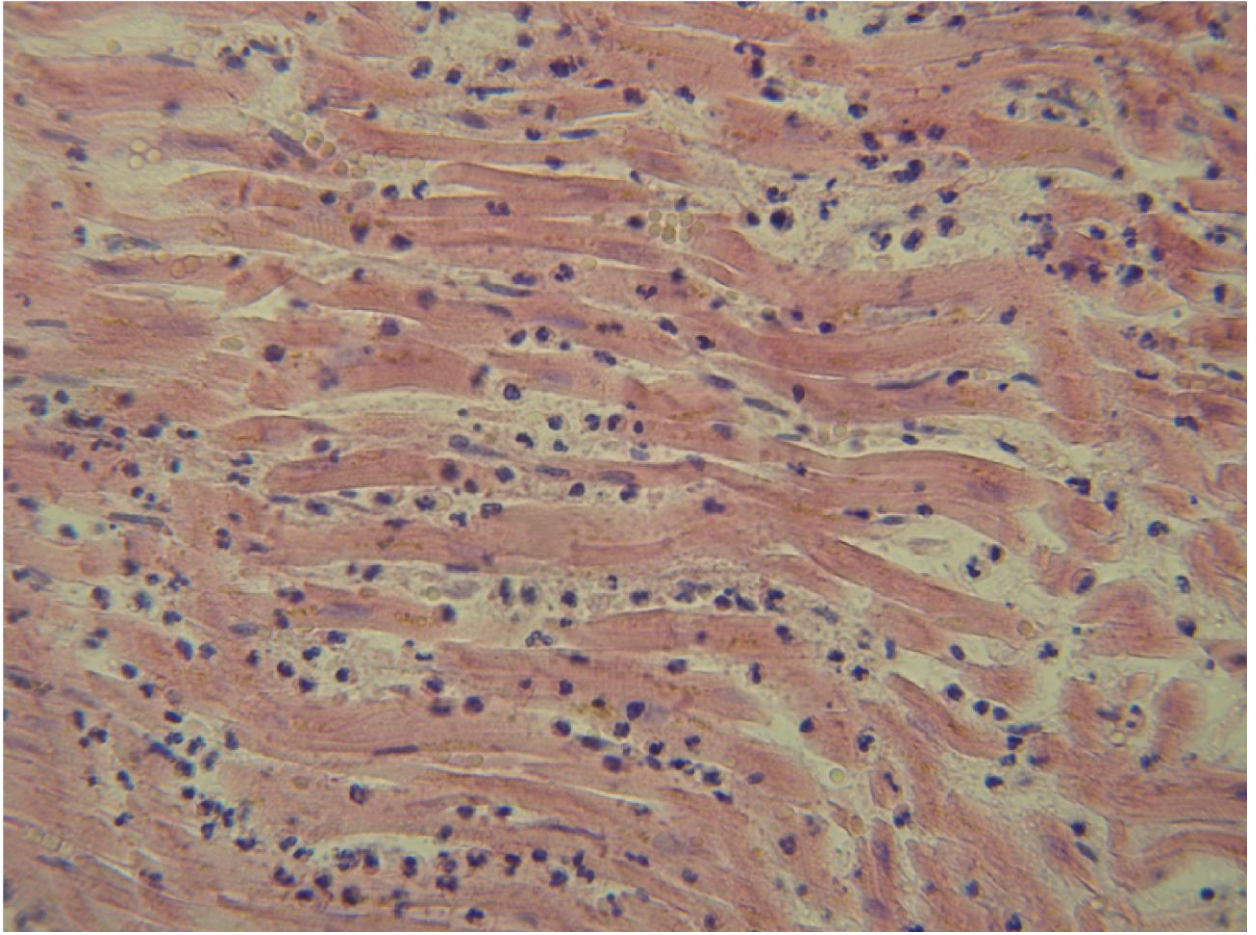
To study the organization of a blood clot in a vessel using a microscopic picture. Describe the micropreparation "Organizing thrombus" (staining with hematoxylin and eosin). Pay attention to the state of the vessel lumen, the structure of the thrombus, the presence of fibrin, platelets, erythrocytes, leukocytes, the area of endothelial damage, as well as the growth of connective tissue in the thrombus (the presence of fibroblasts and collagen fibers), the formation of new vessels - vascularization.

3. Micropreparation "Fatty embolism of the lung."



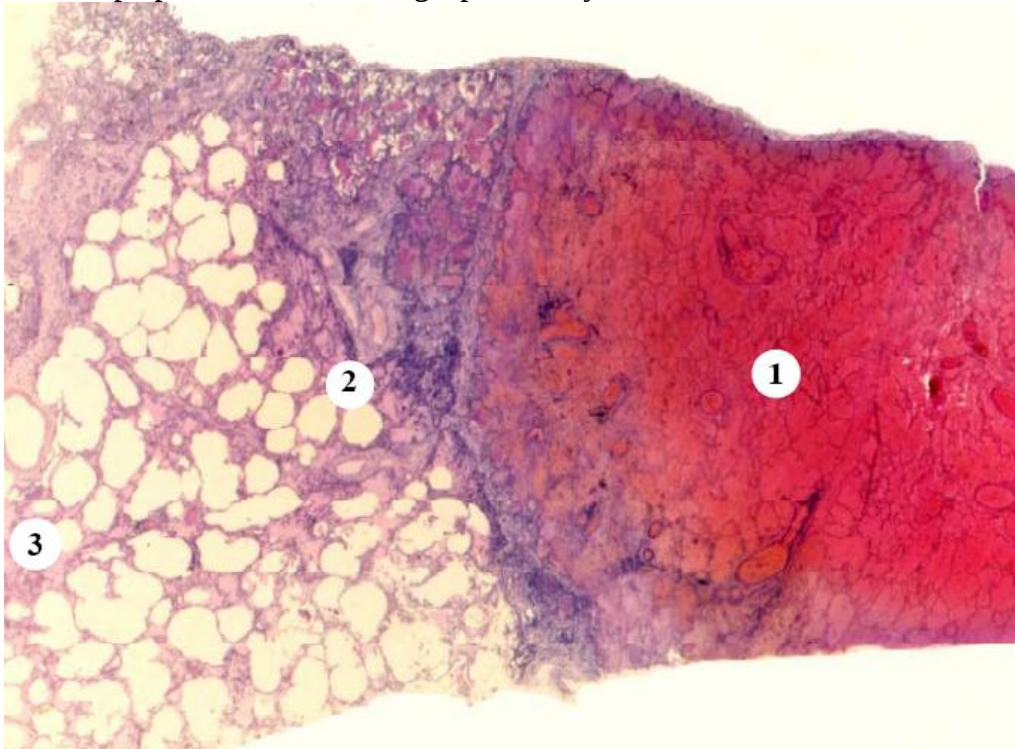
To study fatty pulmonary embolism in a microscopic picture. Describe the micropreparation "Fatty embolism of the lung" (coloring Sudan III). Pay attention to the state of the vessel lumen, the color of the emboli in an orange-yellow color.

4. Additionally: Micropreparation "Myocardial infarction".



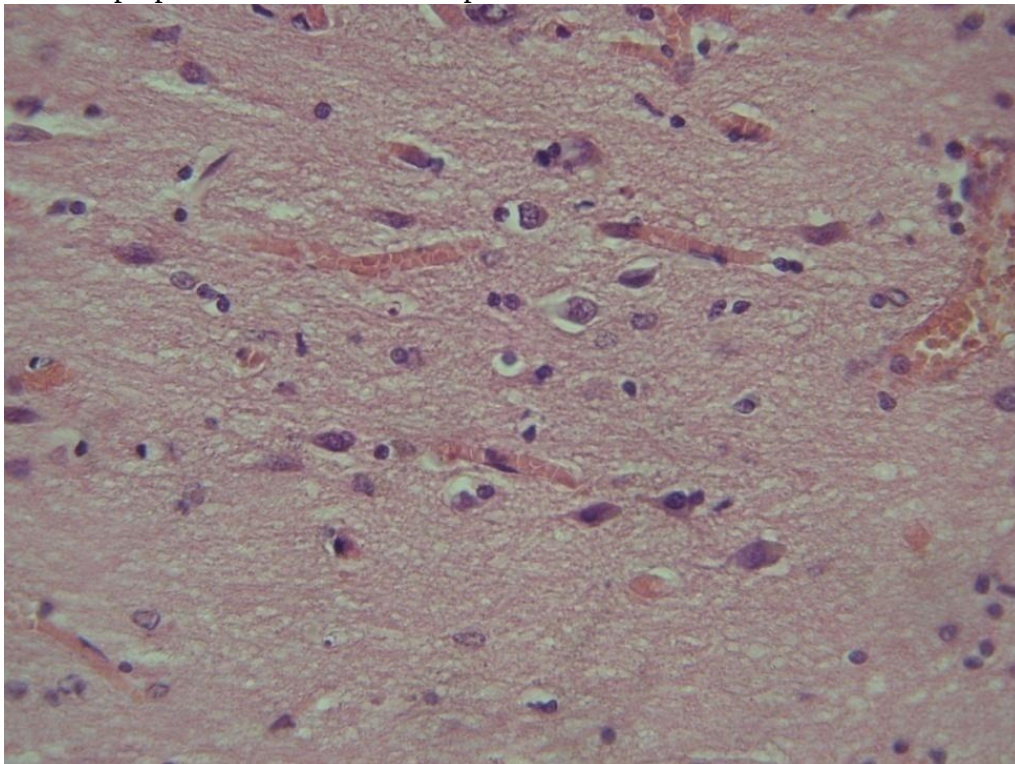
To study myocardial infarction on a microscopic picture. Describe the micropreparation "Myocardial infarction" (staining with hematoxylin and eosin). Pay attention to the state of cardiomyocytes, karyolysis, the presence of a zone of demarcation inflammation with neutrophilic infiltration.

5. Micropreparation «Hemorrhagic pulmonary infarction».



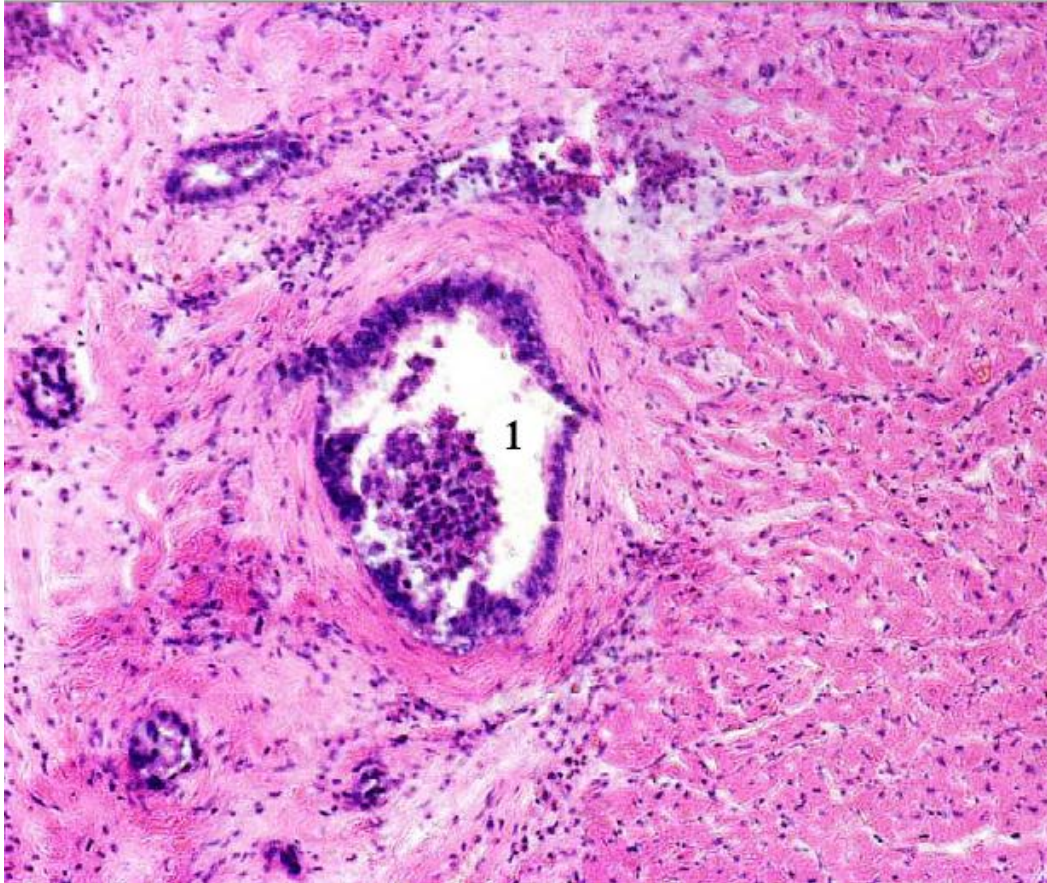
To study hemorrhagic pulmonary infarction on a microscopic picture. Describe the micropreparation "Hemorrhagic pulmonary infarction" (staining with hematoxylin and eosin). Pay attention to the state of the interalveolar septa, karyolysis, the presence of a large number of erythrocytes in the lumen of the alveoli.

6. Micropreparation "Stasis in the capillaries of the brain."



Examine blood stasis using a microscopic picture. Describe the micropreparation "Stasis in the capillaries of the brain" (staining with hematoxylin and eosin). Pay attention to the state of the lumen of the capillaries, sludge of erythrocytes, edema of the brain tissue.

7. Micropreparation "Tumor emboli in a vessel".



Examine tumor emboli in a vessel using a microscopic picture. Describe the micropreparation "Tumor emboli in a vessel" (staining with hematoxylin and eosin). Pay attention to the state of the vessel lumen, to the presence of tumor cells in the lumen, to the infiltration of the vessel wall by tumor cells.

List of recommended literature:

Basic literature:

1. "Basic pathology" Vinay Kumar, Ramzi S. Cotran, Stanley L. Robbins, 1997.

Additional literature:

1. "Pathology. Quick Review and MCQs" Harsh Mohan, 2004.
2. "Textbook of Pathology" Harsh Mohan, 2002.
3. "General and Systemic Pathology" Joseph Hunter, 2002.
4. "General and Systematic Pathology" Ed. J.C.E. Underwood – Edinburgh: Churchill Livingstone, 1996 (2th).
5. "Histology for Pathologist" Ed. S.S.Sternberg – Philadelphia: Lippincott Raven Publ, 1997 (2th).
6. "Histopathology. A Color Atlas and Textbook" Damjanov I., McCue P.A. – Baltimore, Philadelphia, London, Paris etc.: Williams and Wilkins, A Waverly Co., 1996.
7. "Muir's Textbook of Pathology" Eds. R.N.M. MacSween, K. Whaley London: ELBS, 1994 (14th).
8. "Pathology" Eds. Rubin, J.L. Farber – Philadelphia: Lippincott Raven Publ, 1998 (3th).

9. "Pathology Illustrated" Govan A.D.T., Macfarlane P.S., Callander R. – Edinburgh: Churchill Livingstone, 1995 (4th).
10. "Robbins Pathologic Basic of Disease" Eds. R.S.Cotran, V.Kumar, T.Collins – Philadelphia, London, Toronto, Montreal, Sydney, Tokyo: W.B.Saunders Co., 1998 (6th).
11. "Wheater's Basic Histopathology. A Color Atlas and Text" Burkitt H.G., Stevens A.J.S.L., Young B. – Edinburgh: Churchill Livingstone, 1996 (3th).
12. "Color Atlas of Anatomical Pathology" Cooke R.A., Steward B. – Edinburgh: Churchill Livingstone, 1995 (10th).
13. "General Pathology " Walter J.B., Talbot I.C. – Edinburgh: Churchill Livingstone, 1996 (7th).
14. "Concise Pathology" Parakrama Chandrasoma, Glive R. Taylor.
15. "Pathology" Virginia A. LiVolsi, Maria J. Merino, John S. J. Brooks, Scott H. Saul, John E. Tomaszewski, 1994.
16. "Short lectures on pathology" Zagoroulko A., 2002
17. "Robbins pathologic basis of diseases" Cotran R., Kumar V., Collins T.
18. "General pathology" Dr. Fatma Hafez, 1979.
19. "Anderson's Pathology " Damjanov I., Linder J. – St. Louis: Mosby Inc., 1995 (10th).

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