

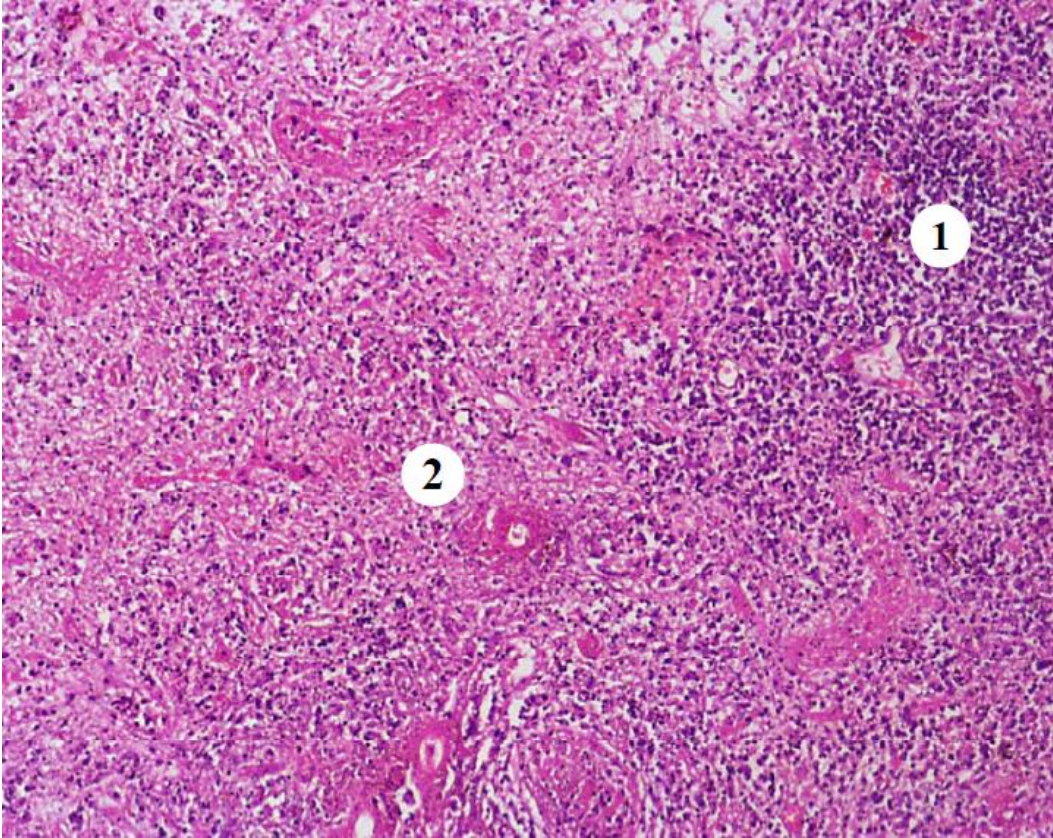
VOLGOGRAD STATE
MEDICAL UNIVERSITY
Department of Pathological Anatomy

Necrosis and apoptosis. Infarction. Biological death.

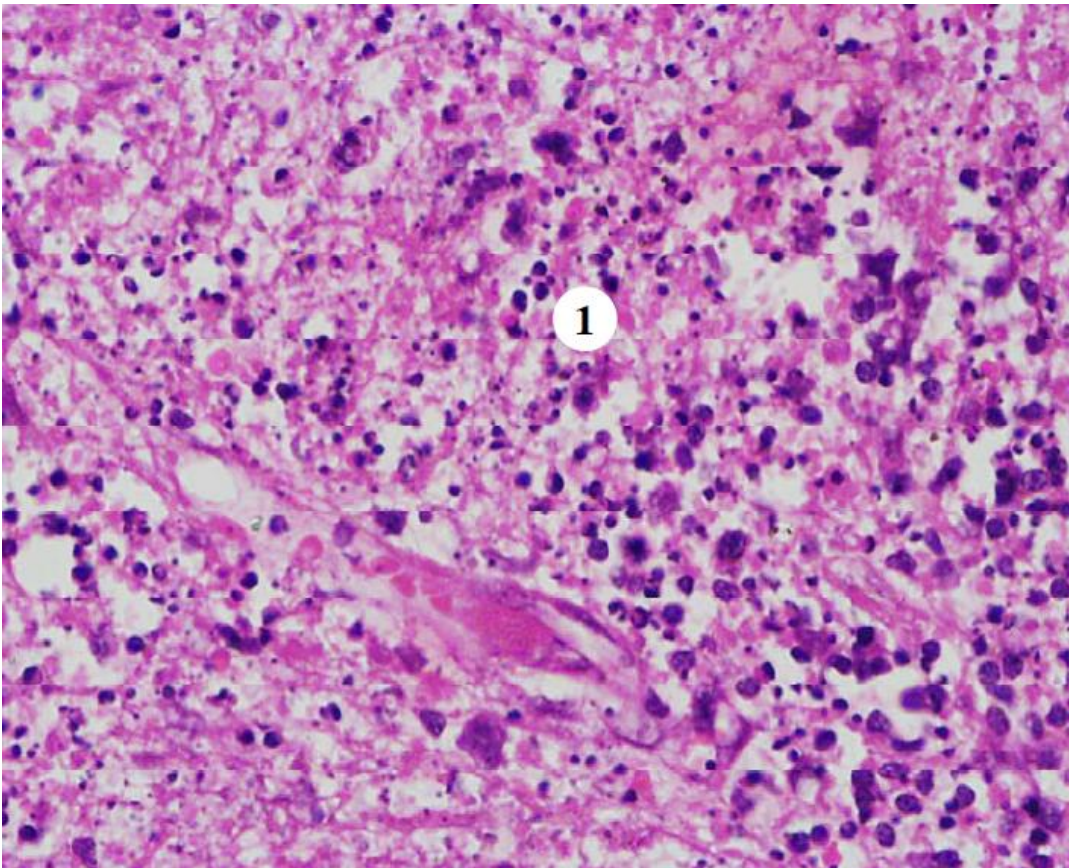
Volgograd, 2020

Lesson plan.

1. Micropreparation «Necrosis and apoptosis of spleen follicle lymphocytes in relapsing fever» (staining with hematoxylin and eosin).

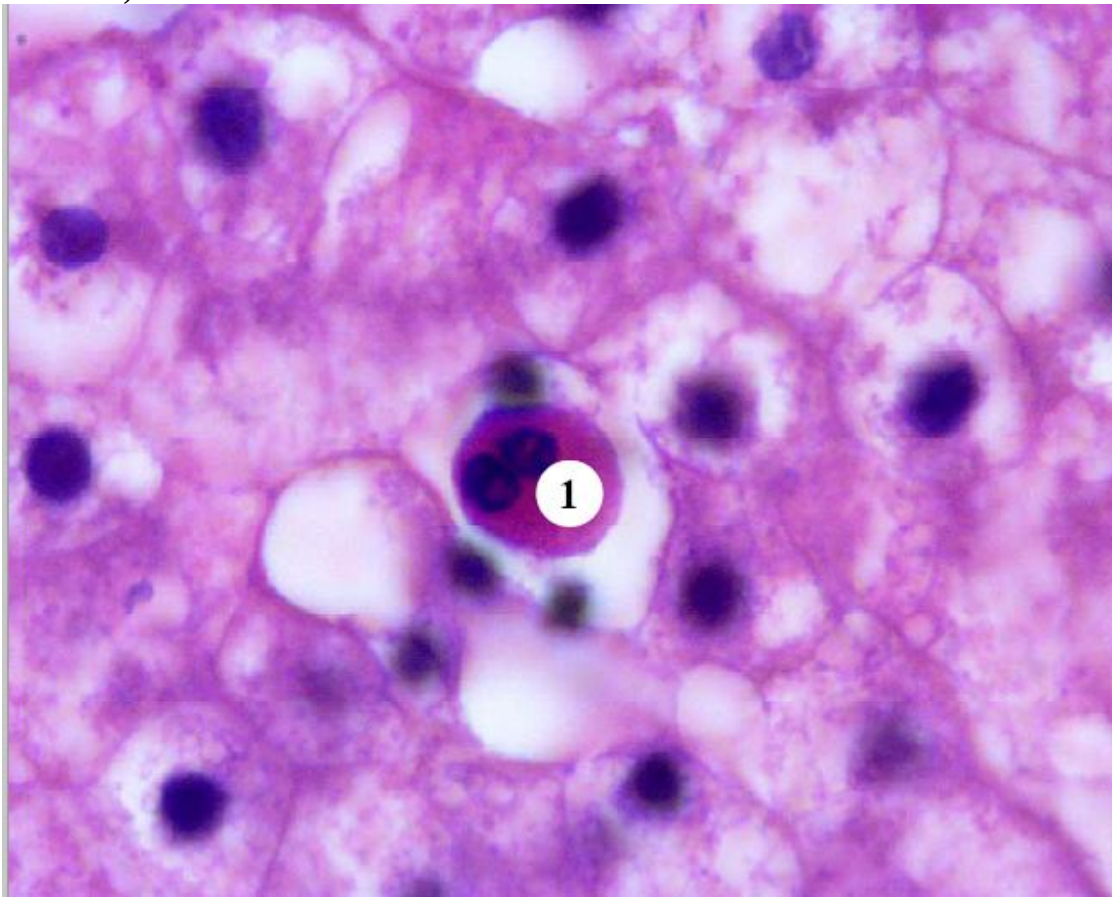


At low magnification, pay attention to changes in the center of the follicles.



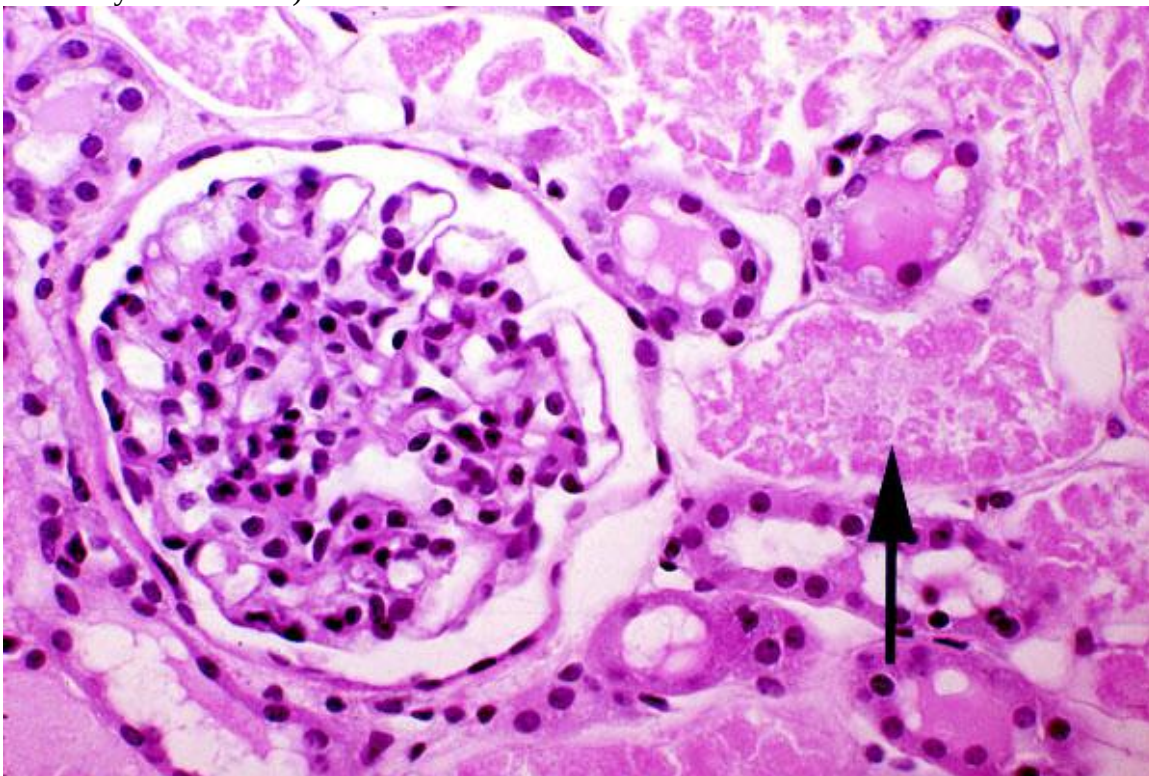
At high magnification, to changes in the nuclei, characteristic of necrosis and apoptosis.

2. Micropreparation. Apoptotic bodies (Kausilman's little bodies) in hepatitis "(staining with hematoxylin and eosin).



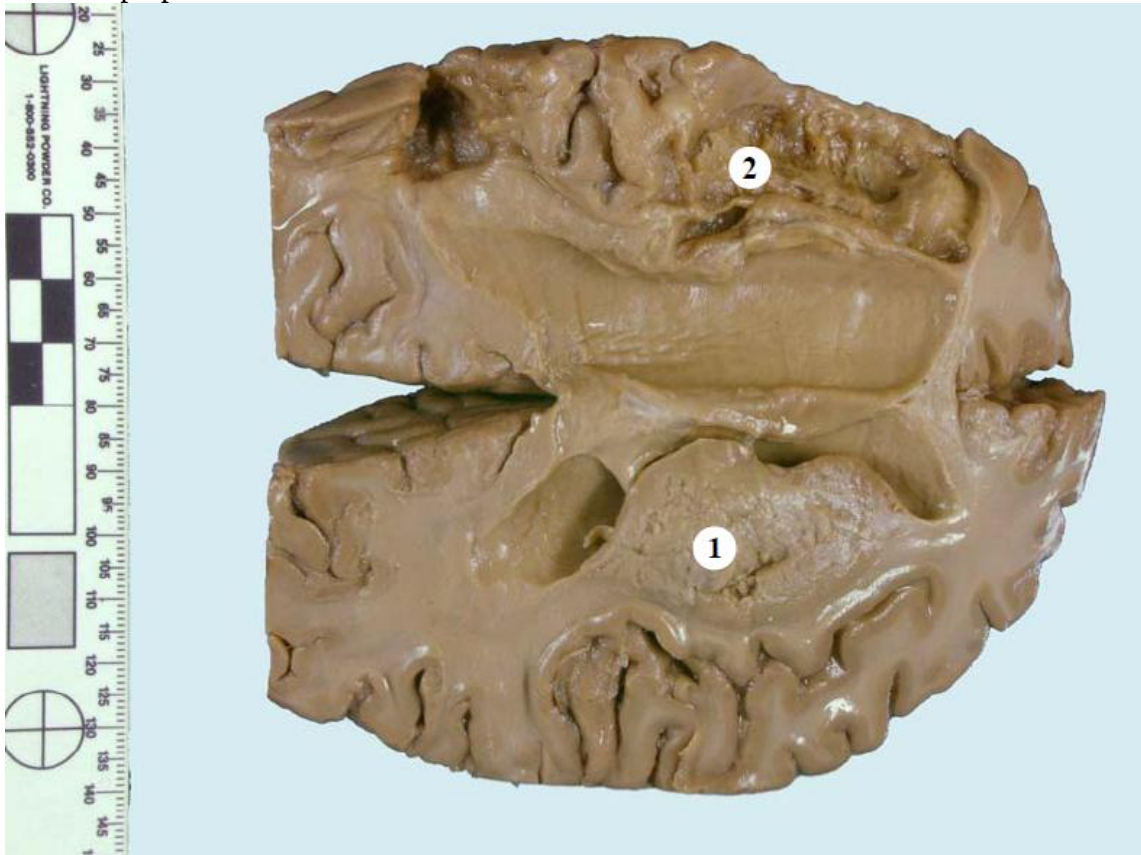
Pay attention to the localization, shape, structure and color of Kausilman's bodies.

3. Micropreparation "Necrosis of the epithelium of the convoluted tubules of the kidney" (staining with hematoxylin and eosin).

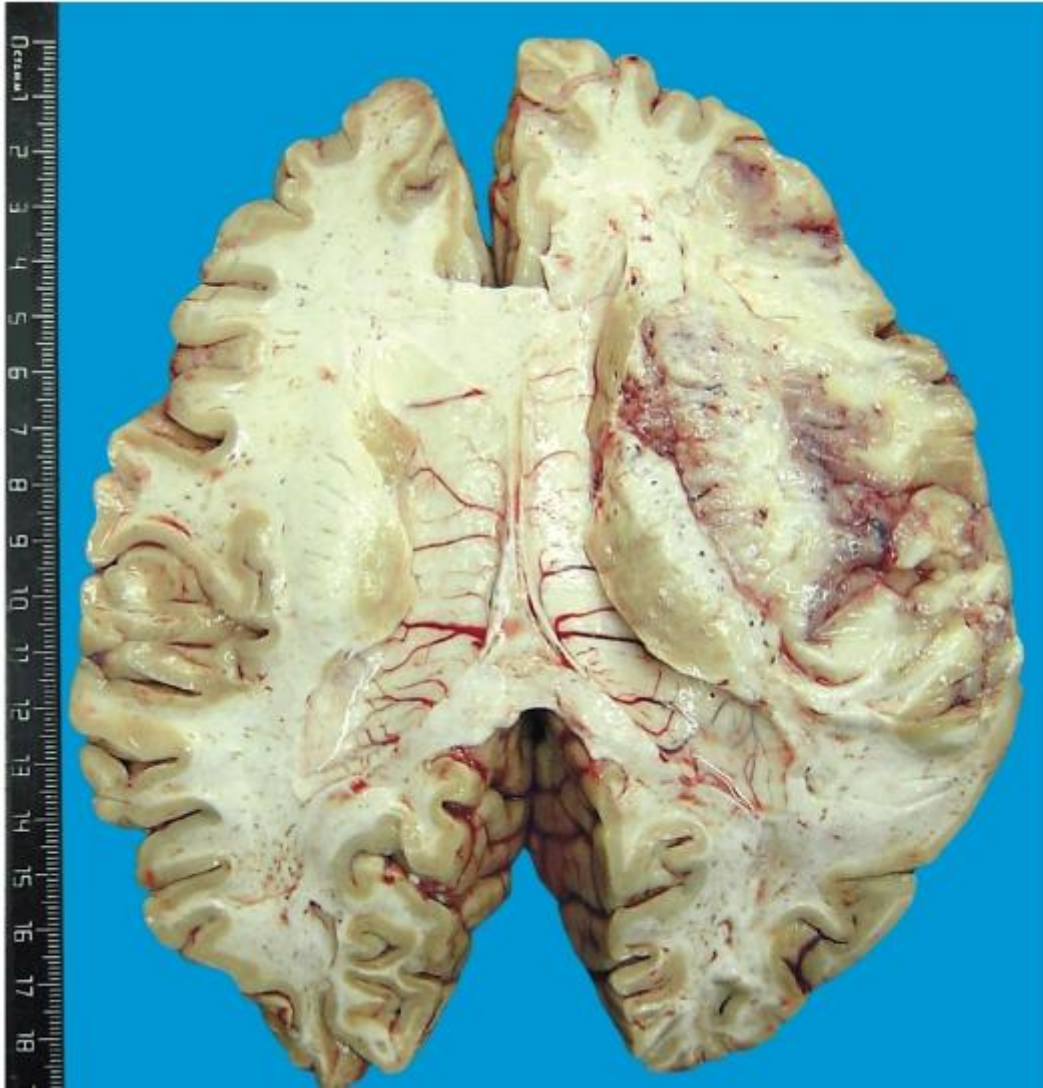


Pay attention to the state of the nuclei and cytoplasm of the epithelium of the tubules, the blood filling of the capillaries of the glomeruli and vessels of the renal medulla.

4. Macropreparation "Ischemic cerebral infarction".



Pay attention to the shape, consistency and color of the necrosis focus (1) and cyst (2).



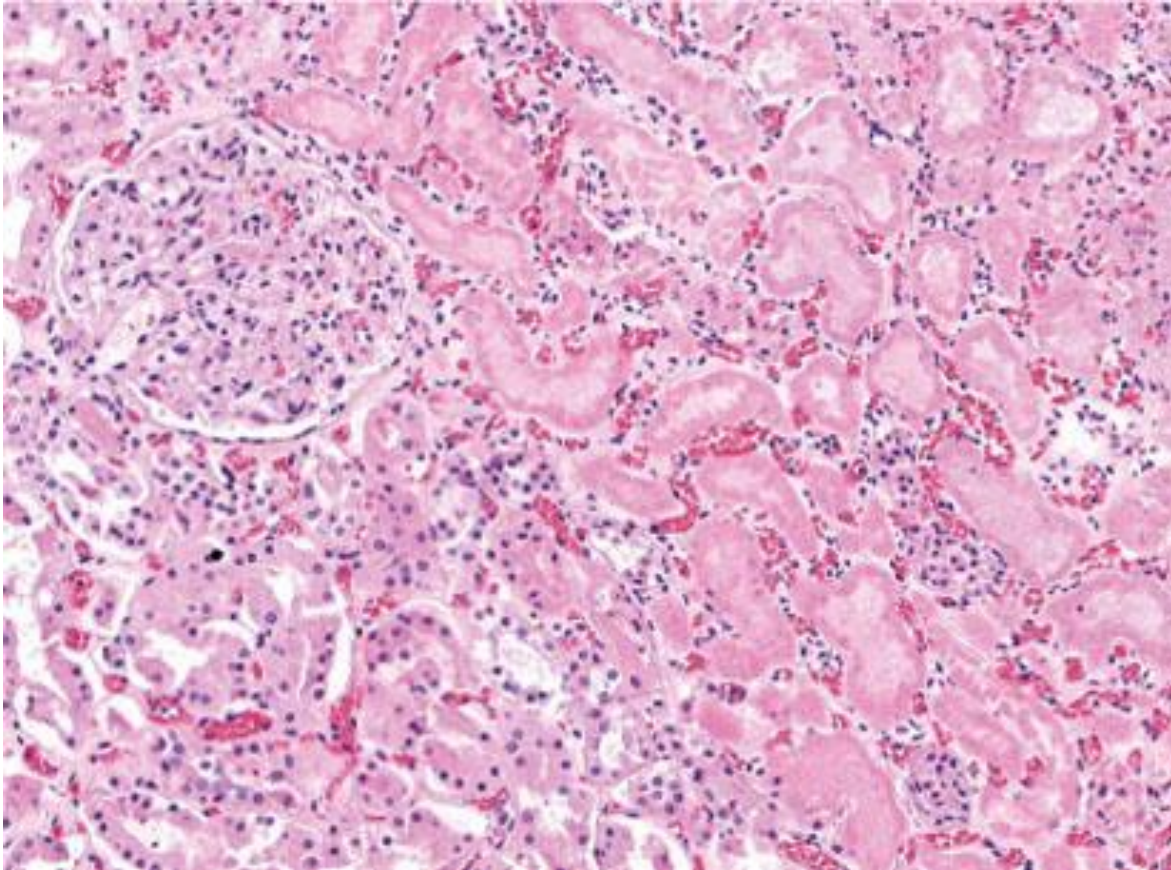
Pay attention to the shape, consistency and color of the necrosis focus.

5. Macropreparation "Ischemic spleen infarction (Spleen infarction in a patient with septic endocarditis)".



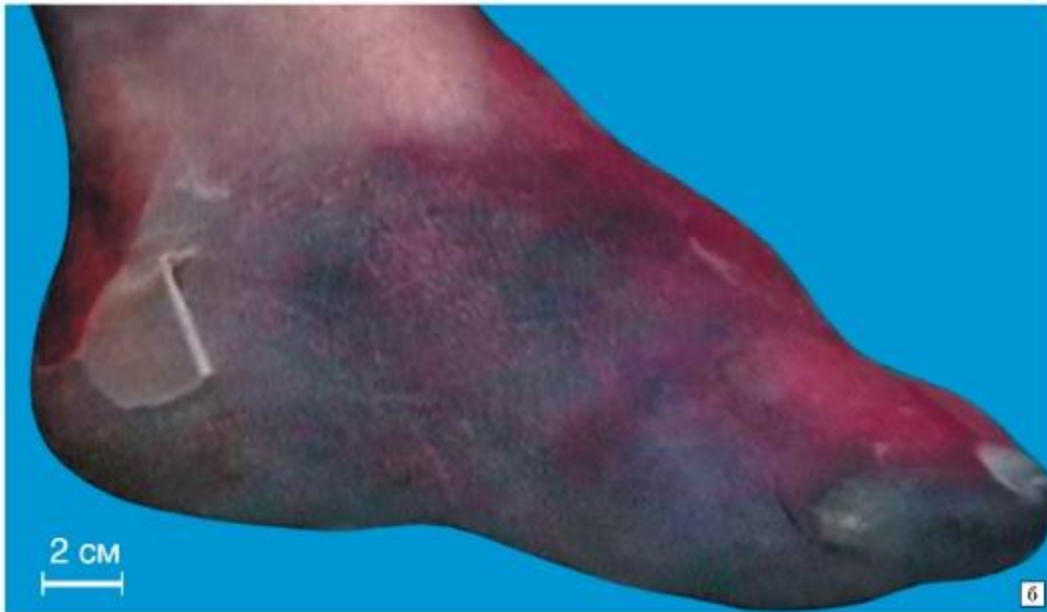
Pay attention to the shape, color and consistency of the necrosis focus.

6. Micropreparation "Ischemic kidney infarction" (staining with hematoxylin and eosin).



Pay attention to changes in the focus of necrosis and the zone of demarcation inflammation.

7. Macropreparation "Gangrene of the foot".



Pay attention to the volume of necrotic tissues, their color and consistency, note the presence of a demarcation line.

8. Macropreparation "Intestinal gangrene".



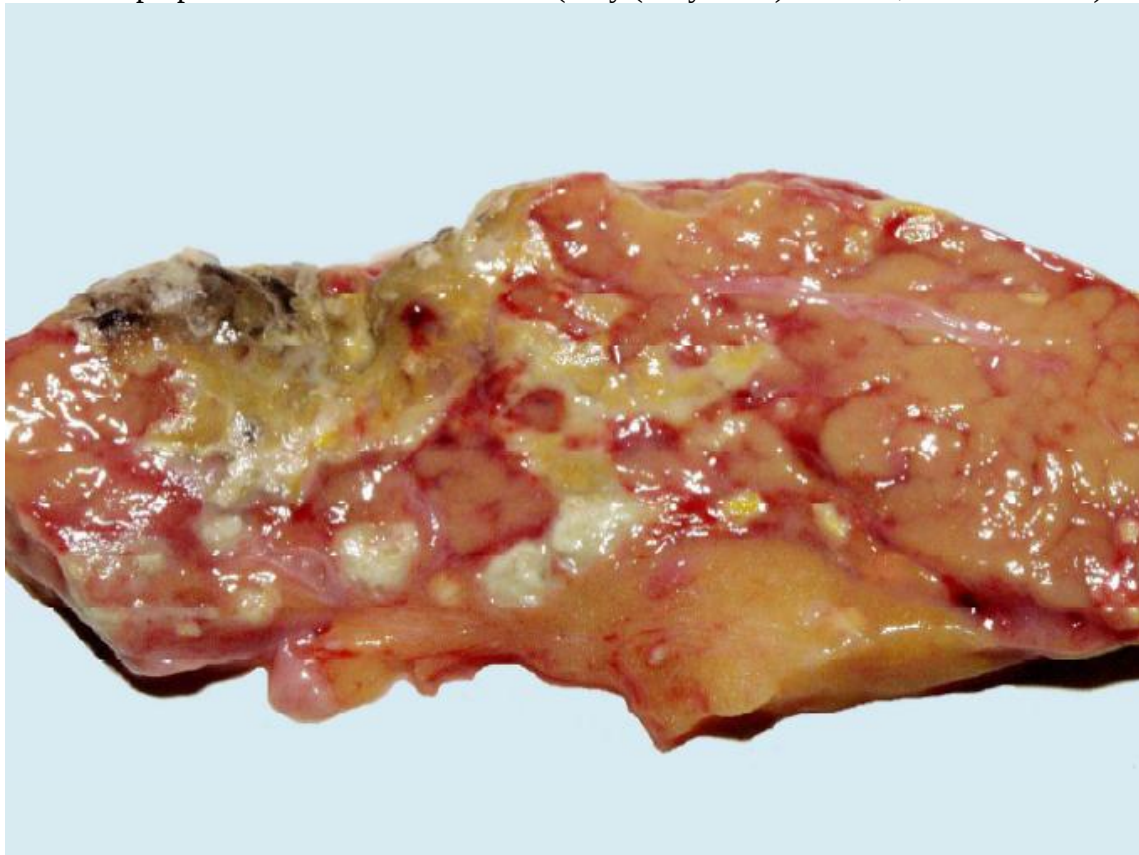
Note the condition of the mucous membrane, color, thickness, consistency of the intestinal wall, the standing of the serous membrane and mesenteric vessels.

9. Macropreparation “Tuberculosis of lymph nodes”.



Pay attention to the color, shape, consistency of necrosis foci in the lymph nodes.

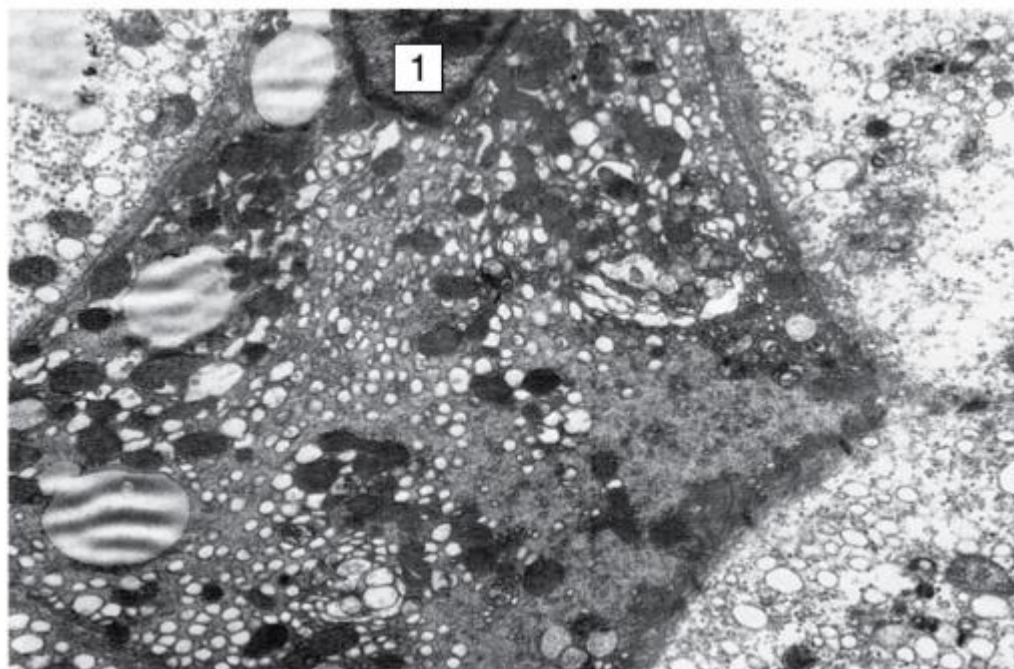
10. Macropreparation "Pancreatonecrosis" (fatty (enzymatic) necrosis, steatonecrosis).



Pay attention to the color, shape, consistency and localization of necrotic changes.

Electronogram

1. Electronogram "Apoptotic body".



Pay attention to changes in chromatin, the structure of the apoptotic body.

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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