

VOLGOGRAD STATE
MEDICAL UNIVERSITY
Department of Pathological Anatomy

Coronary heart disease. Rheumatic diseases. Congenital and acquired heart defects.

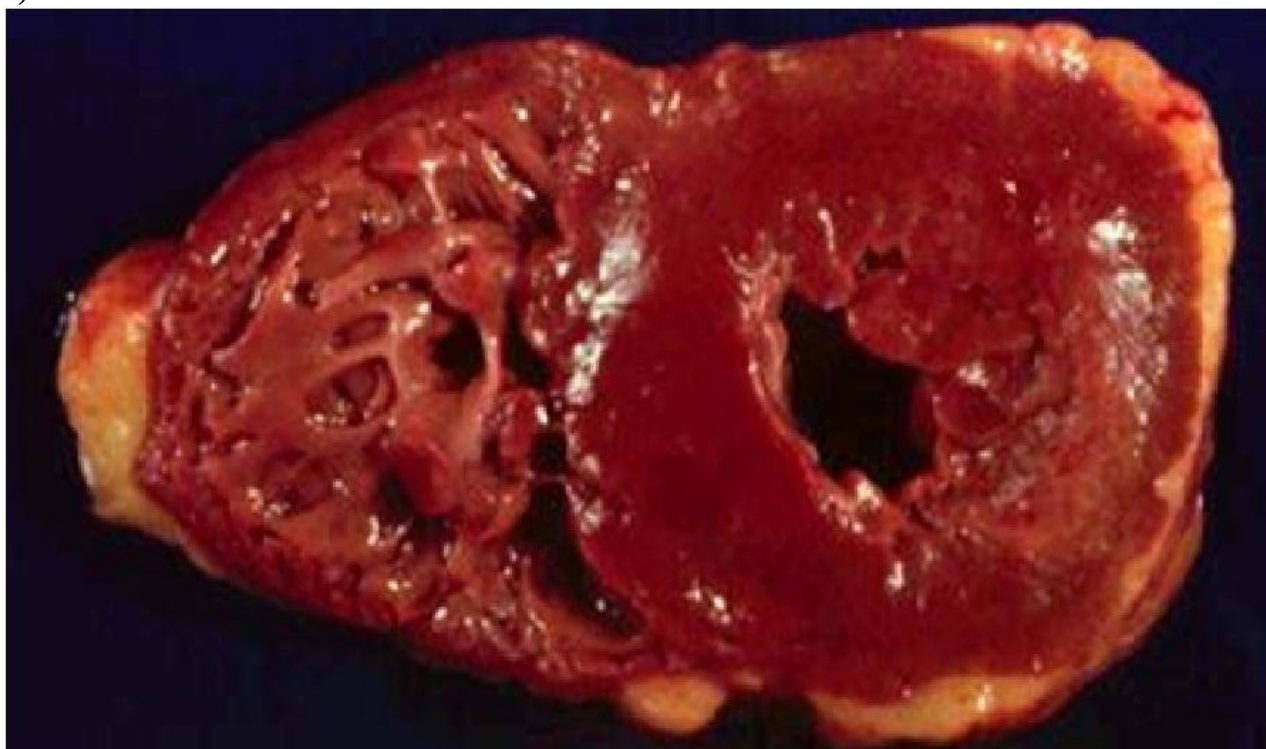
Guidelines for students
III year of medical faculty
for practical exercises in pathological anatomy

Volgograd

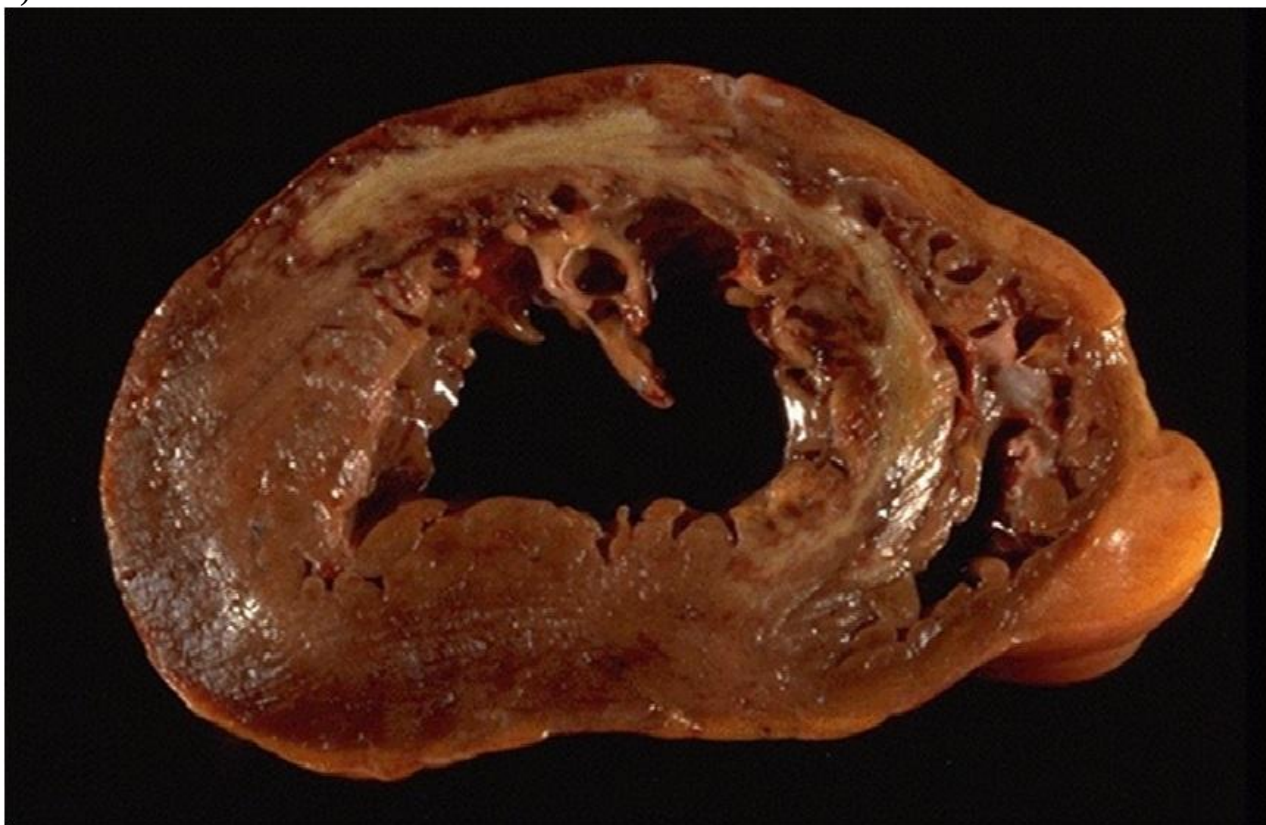
Lesson plan
Macropreparations.

Acute myocardial infarction - find and describe the localization of the process, shape, size, consistency, color of necrotic areas and surrounding tissue.

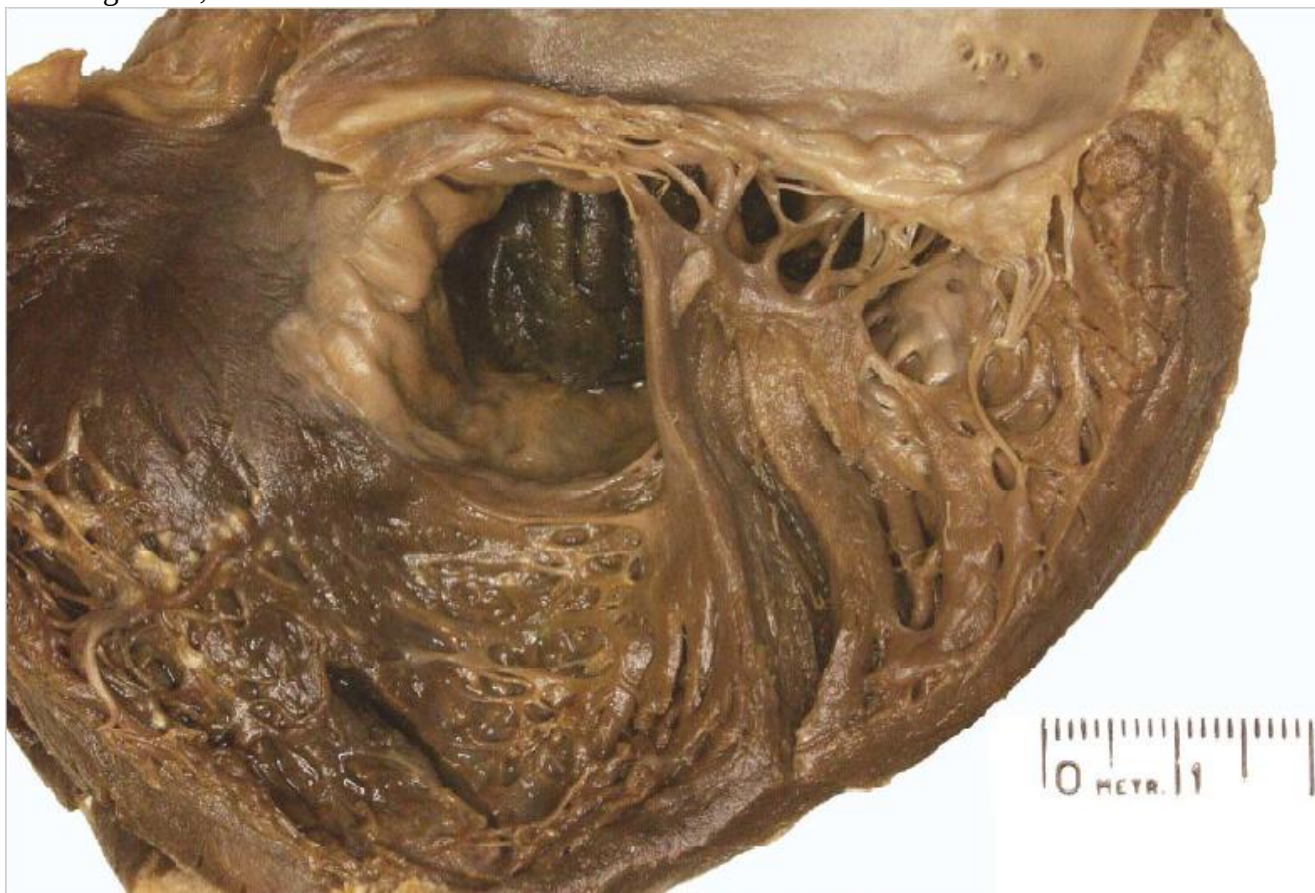
a)



b)

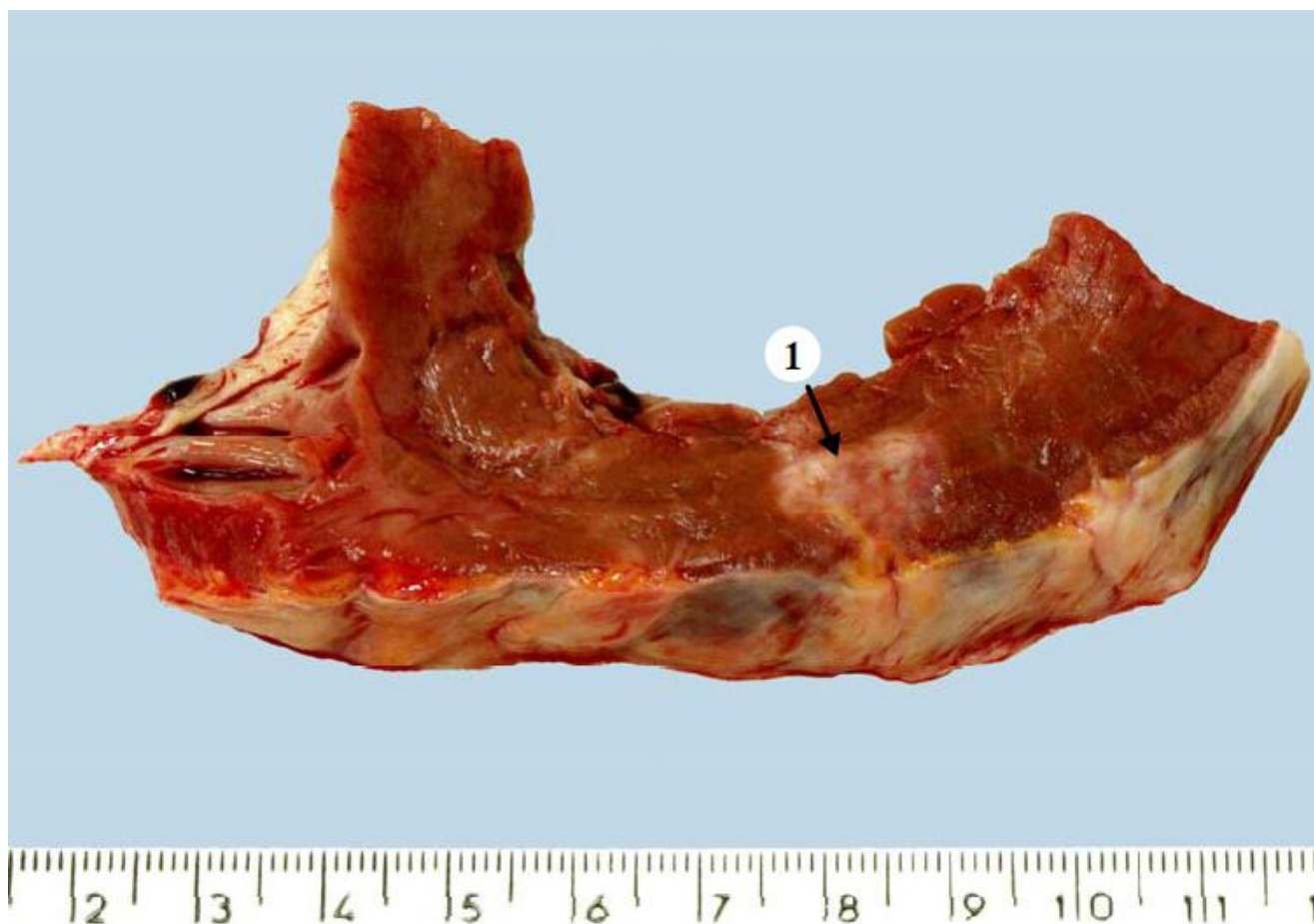


Chronic aneurysm (acute myocardial infarction) of the left ventricle of the heart with parietal thrombosis - find and describe the localization of the process, shape, size, consistency, color of necrotic areas and surrounding tissue, find and describe the localization of a thrombus.



8.15. Хроническая аневризма сердца.
Стенка сердца в области левого желудочка и верхушки истончена, выбухает, представлена плотной белой тканью (рубец). Со стороны эндокарда видны серо-красные тромботические наложения. Миокард вокруг рубца утолщен.

Postinfarction cardiosclerosis - find and describe the localization of the process, shape, size, consistency, color of areas of scar connective tissue and surrounding tissue.



5.9. Крупноочаговый кардиосклероз.
В левом желудочке сердца виден участок неправильной формы белого цвета плотной консистенции (рубец на месте бывшего инфаркта) (1). Стенка левого желудочка вокруг рубца утолщена (гипертрофирована).

Recurrent warty endocarditis - describe the condition of the valve leaflets, their color, transparency, thickness, condition of the chordal filaments - length, thickness, color. Mark on which surface of the valve there are thrombotic overlays, what formations they are represented by (size, color, consistency of these formations).



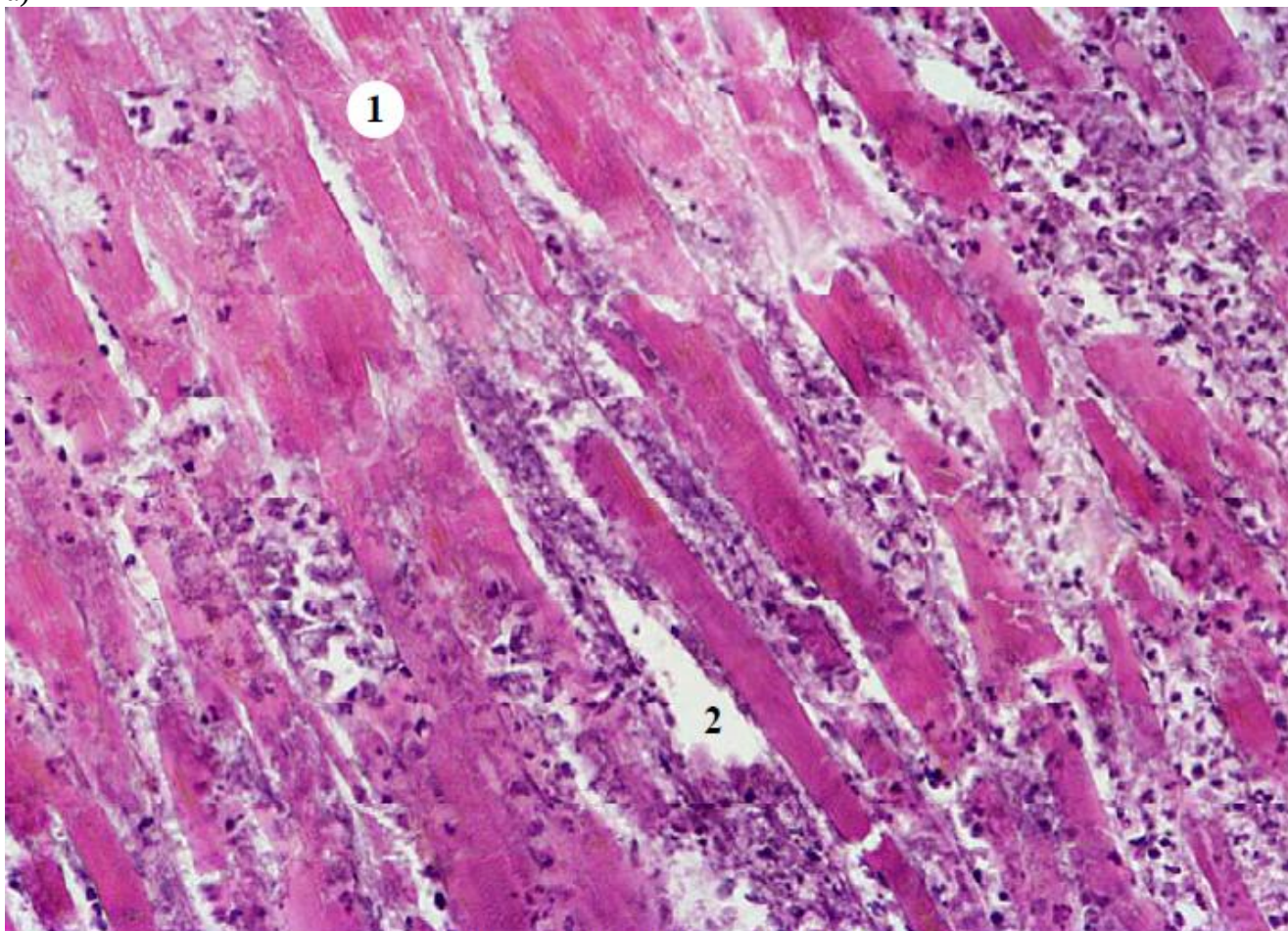
Acute warty endocarditis - describe the condition of the valve leaflets, their color, transparency, thickness, condition of the chordal filaments - length, thickness, color. Mark on which surface of the valve there are thrombotic overlays, what formations they are represented by (size, color, consistency of these formations).



Micropreparations.

Acute myocardial infarction - find three zones: 1) the zone of necrosis, 2) the zone of demarcation inflammation, 3) the zone of preserved viable cardiomyocytes. In the first zone, note the characteristic signs of death of cardiomyocytes, in the zone of demarcation inflammation, pay attention to the qualitative and quantitative composition of the infiltrate and (or) granulation tissue. Hematoxylin and eosin staining x 400.

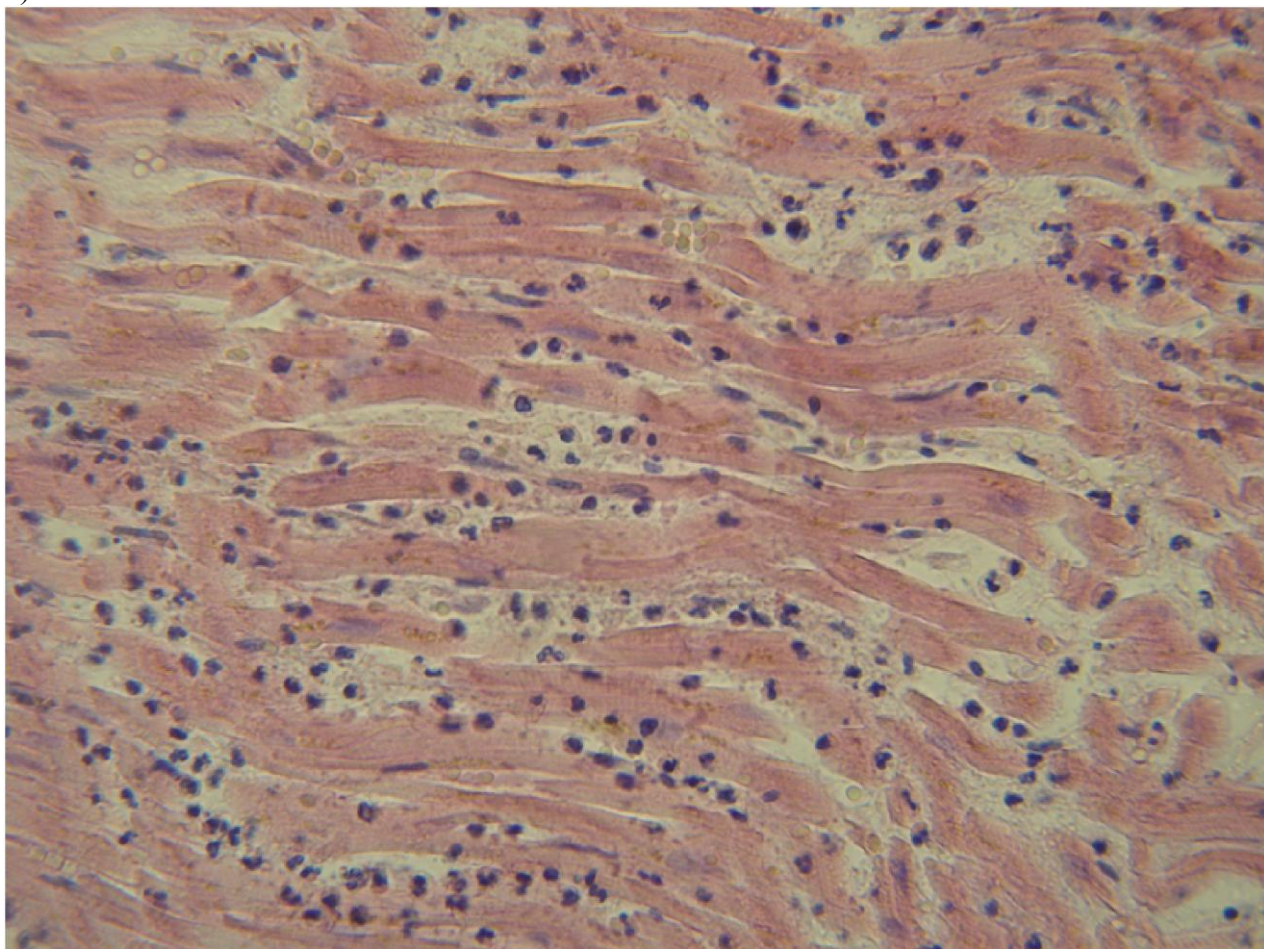
a)



8.12. Инфаркт миокарда (стадия некроза).

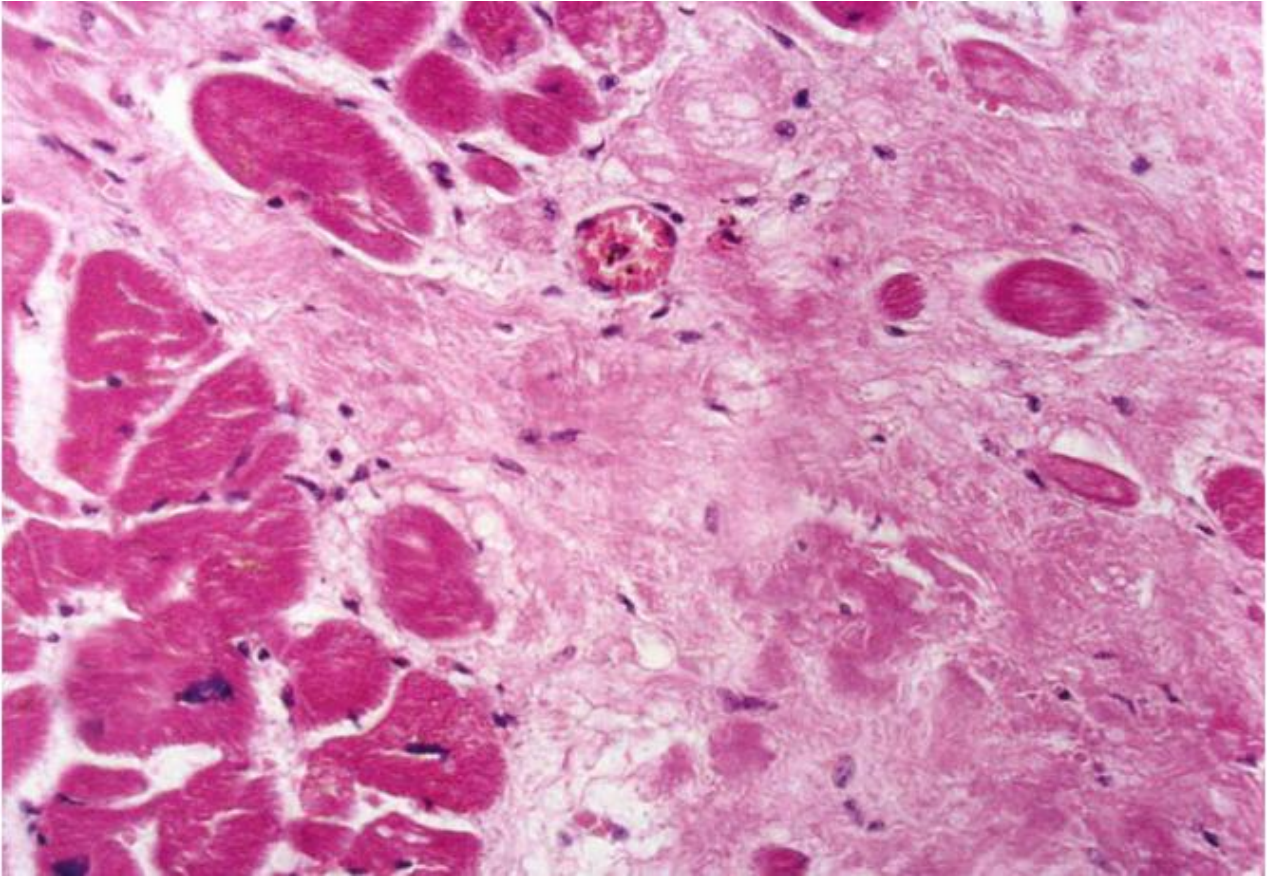
1 – зона некроза мышечных клеток (кариолизис, плазмокоагуляция), образование некротического детрита. По периферии зоны некроза отмечается демаркационное воспаление (2) – расширенные полнокровные тонкостенные сосуды, инфильтрация полиморфно-ядерными лейкоцитами.

6)



Postinfarction cardiosclerosis - to find the area of scar connective tissue, cardiosclerosis, the area of preserved viable cardiomyocytes. In the first zone, note the characteristic components of the connective tissue, in the zone of viable cardiomyocytes, pay attention to the size of cells and their nuclei.

Hematoxylin and eosin staining x 400.

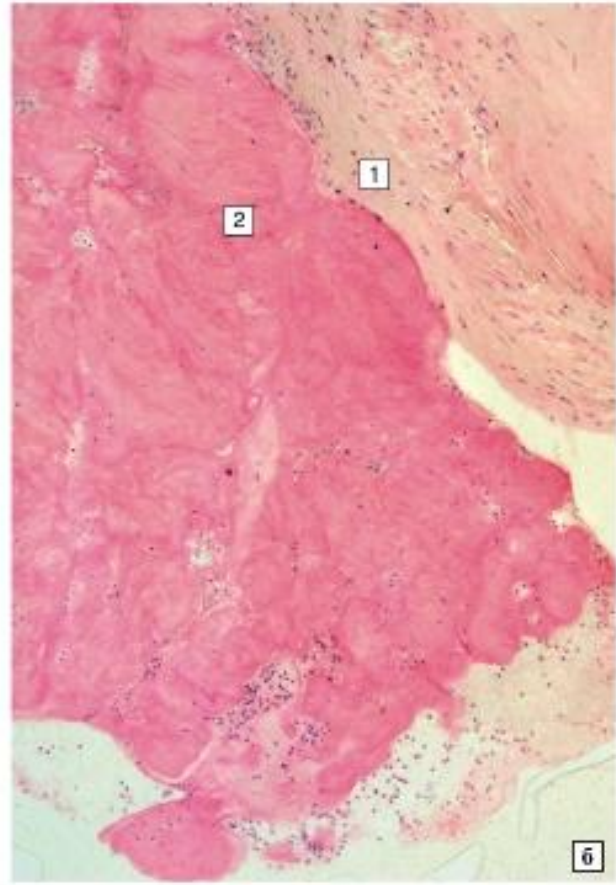
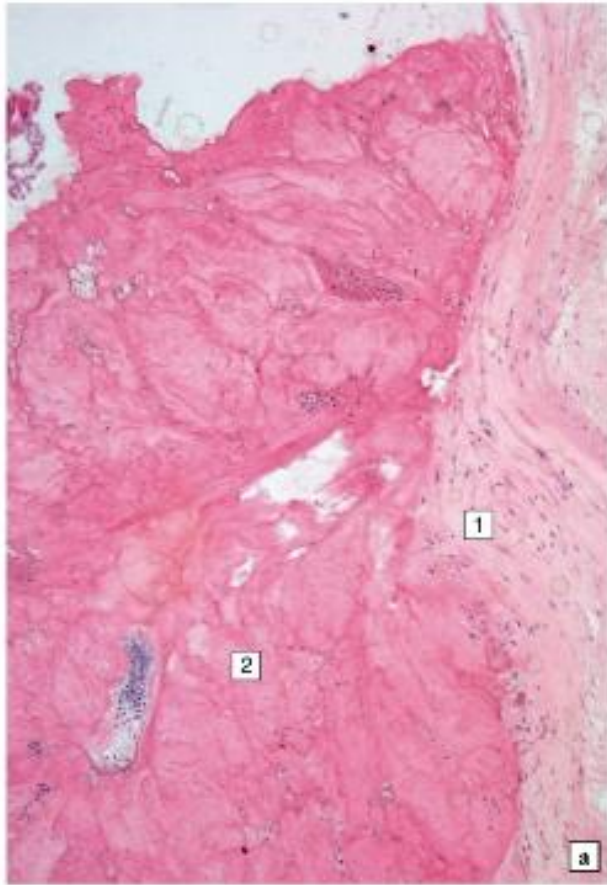


Atherosclerosis of the coronary artery.

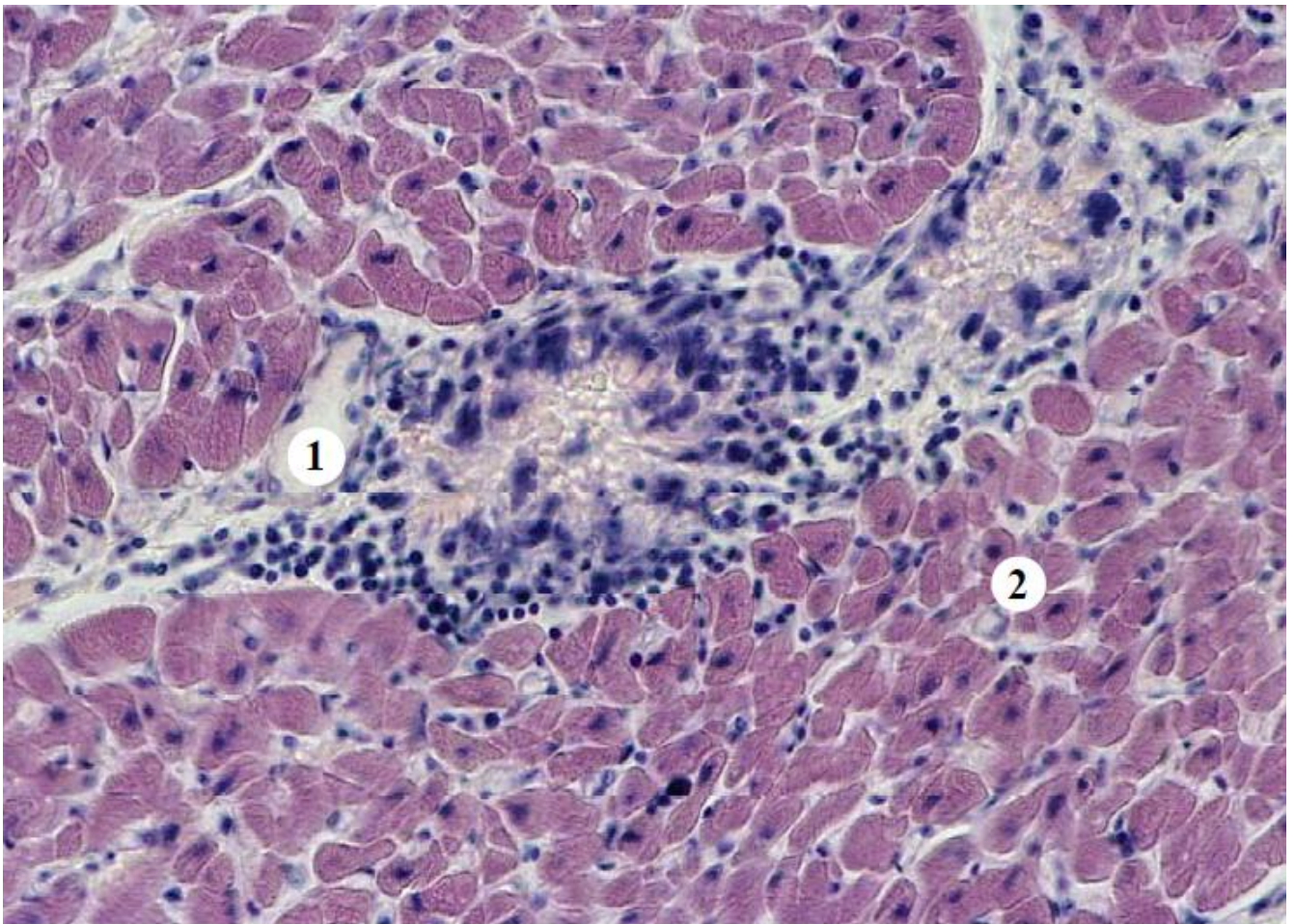
Note an atherosclerotic plaque with a lipid core, thinning and rupture of the fibrous cap, narrowing of the artery lumen. Hematoxylin and eosin staining x 100.



Recurrent warty endocarditis (a, b). Recurrent warty endocarditis in rheumatism: the valve leaflet is sclerosed, hyalinized, vascularized, with foci of muroid swelling and fibrinoid necrosis, with mild lymphoma-macrophage infiltration (1). In the areas of endocardial damage, endothelial destruction is attached to a mixed thrombus (2). Staining with hematoxylin and eosin: a - x 100, b - x200.



Rheumatic granuloma - find Ashoff-Talalaev's granuloma, determine its localization and cellular composition. Hematoxylin and eosin staining x 400.



8.26. Узелковый продуктивный (гранулематозный) миокард при ревматизме. В строме миокарда видны очаговые периваскулярные скопления клеток вокруг фокусов фибриноидного некроза (гранулемы Ашоффа – Талалаева) (1). В кардиомиоцитах имеются признаки миолиза (2) и жировой дистрофии (препарат А.И. Абрикосова).

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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