



PATHOLOGY /1ST COURSE

PRACTICE

Sawa University

جامعة ساوة الاهلية

College of health and medical techniques

كلية التقنيات الصحية والطبية

Department of Radiology Tech.

قسم تقنيات الاشعة والسونار

. Third Stage

المرحلة الثالثة

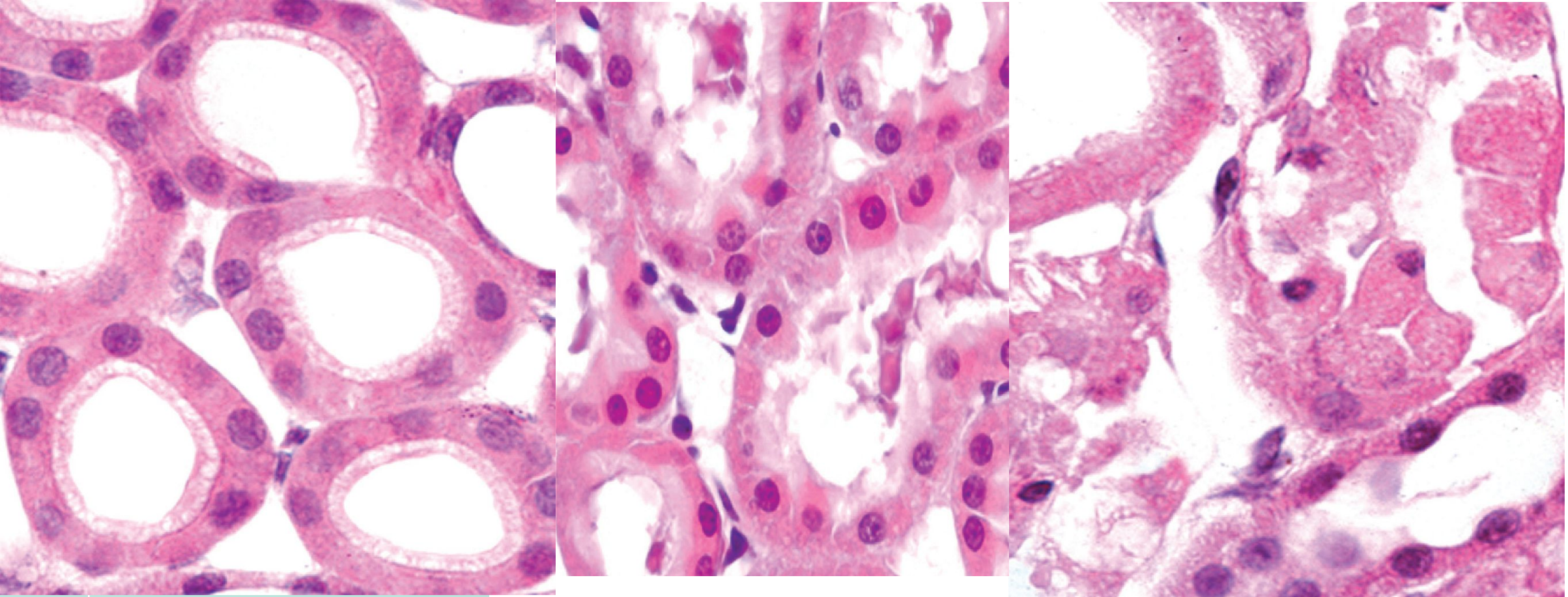
محاضرة السادسة

الجانب النظري

Lecture No. 6

Theoretical

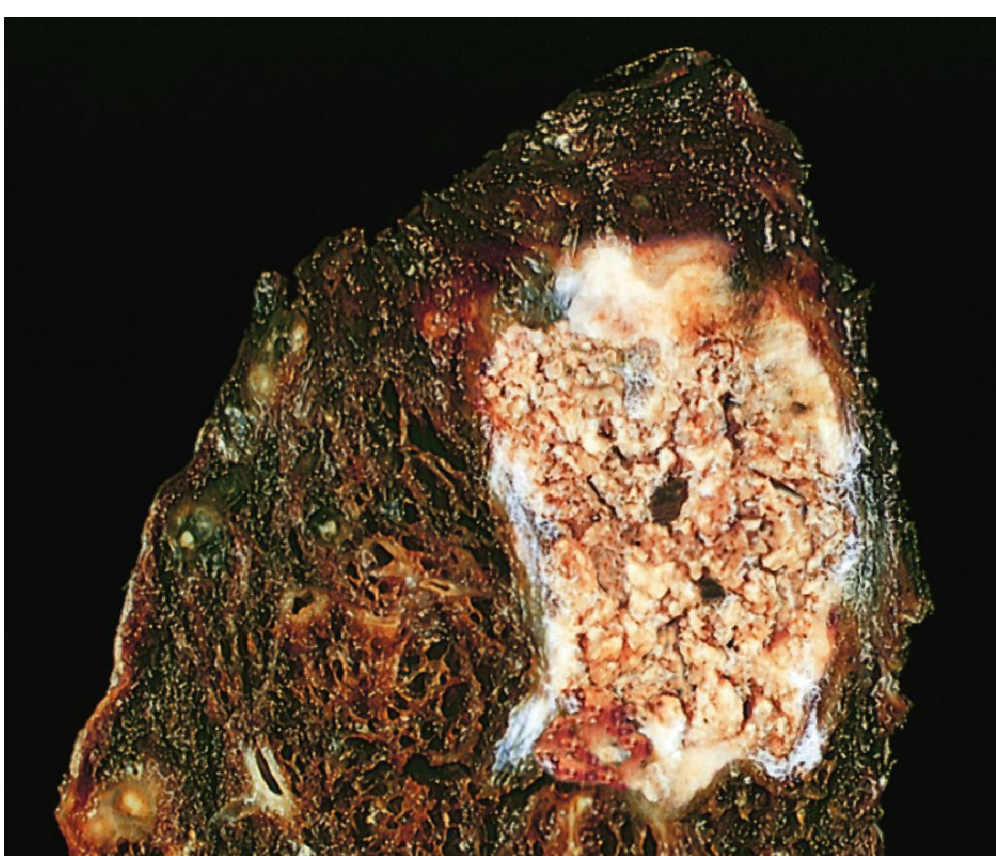
تدريسي المادة : م.م فاضل عوفي عواد



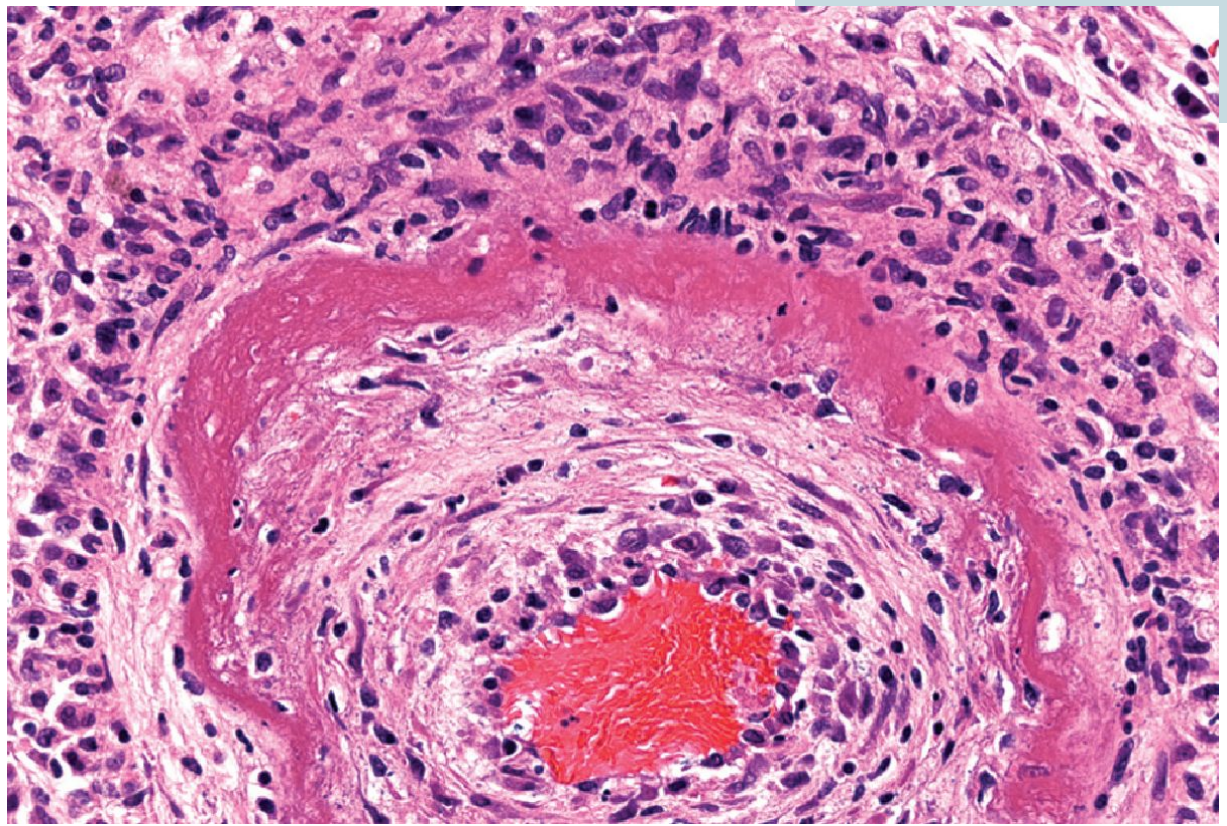
Morphologic changes in reversible and irreversible cell injury (necrosis). (A) Normal kidney tubules with viable epithelial cells. (B) Early (reversible) ischemic injury showing surface blebs, increased eosinophilia of cytoplasm, and swelling of occasional cells. (C) Necrotic (irreversible) injury of epithelial cells, with loss of nuclei and fragmentation of cells and leakage of contents. *(Courtesy of Drs. Neal Pinckard and M.A. Venkatachalam, University of Texas Health Sciences Center, San Antonio, Texas.)*



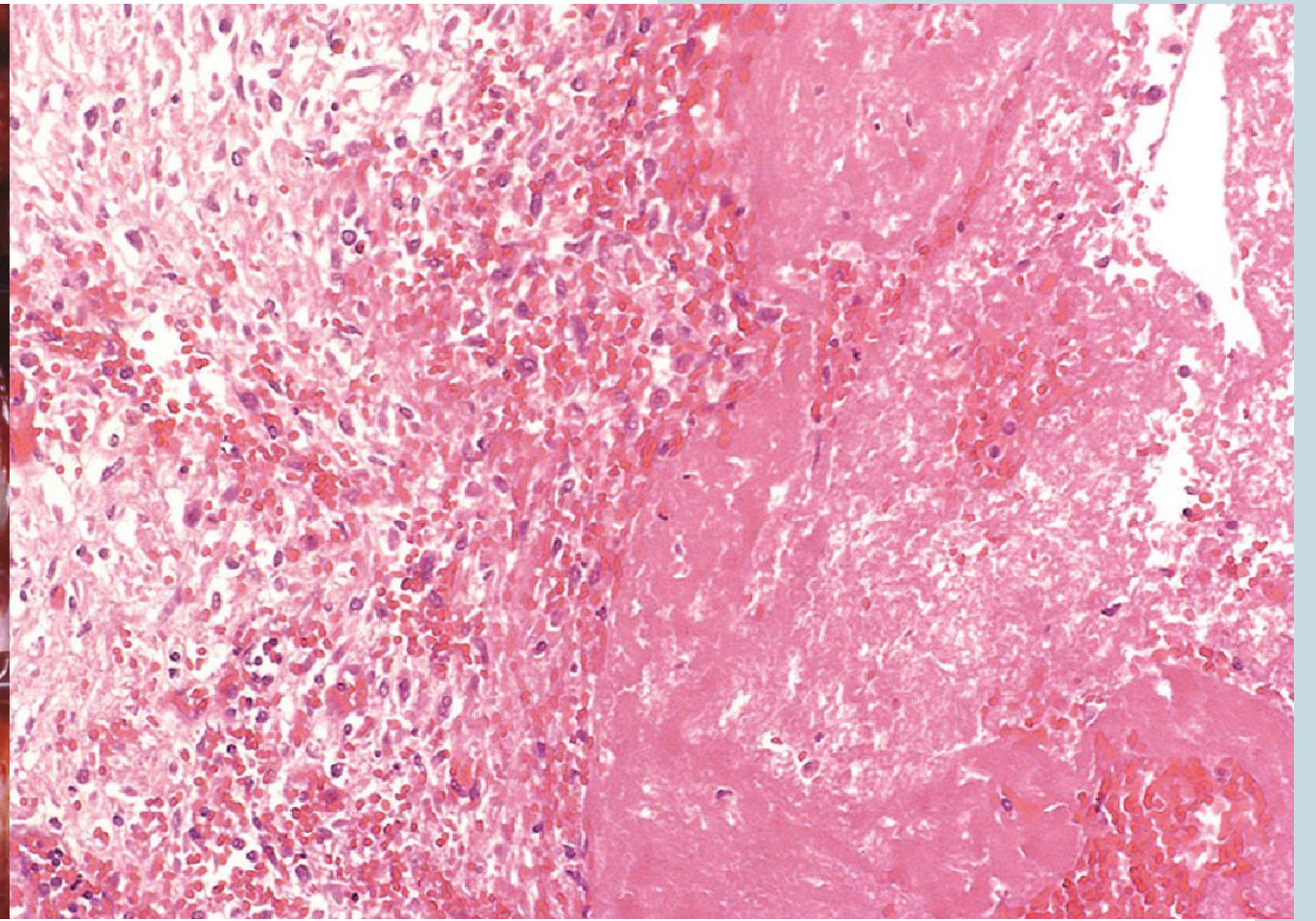
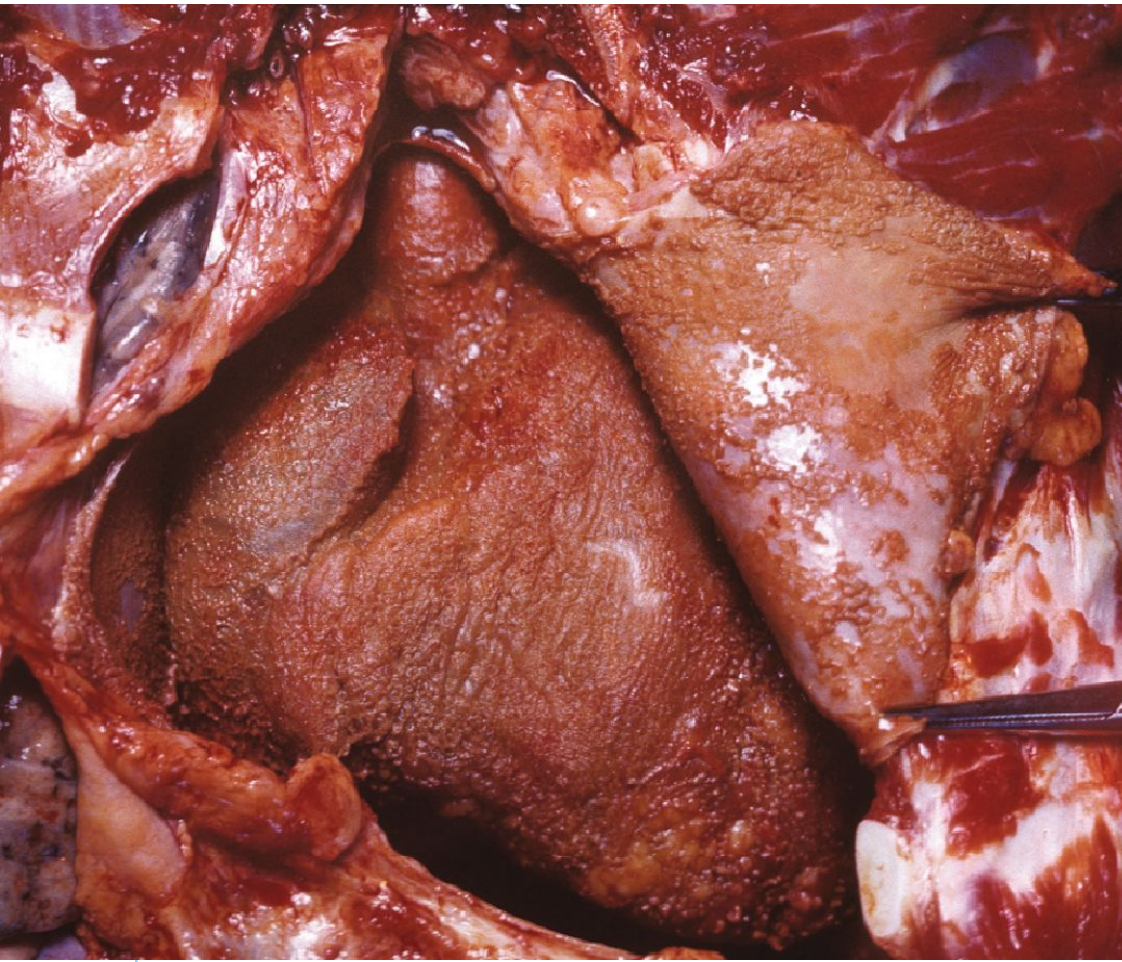
coagulative necrosis. (A) A wedge-shaped kidney infarct (*yellow*) with preservation of the outlines. (B) Microscopic view of the edge of the infarct, with normal kidney (*N*) and necrotic cells in the infarct (*I*). The necrotic cells show preserved outlines with loss of nuclei, and an inflammatory infiltrate is present (difficult to discern at this magnification).



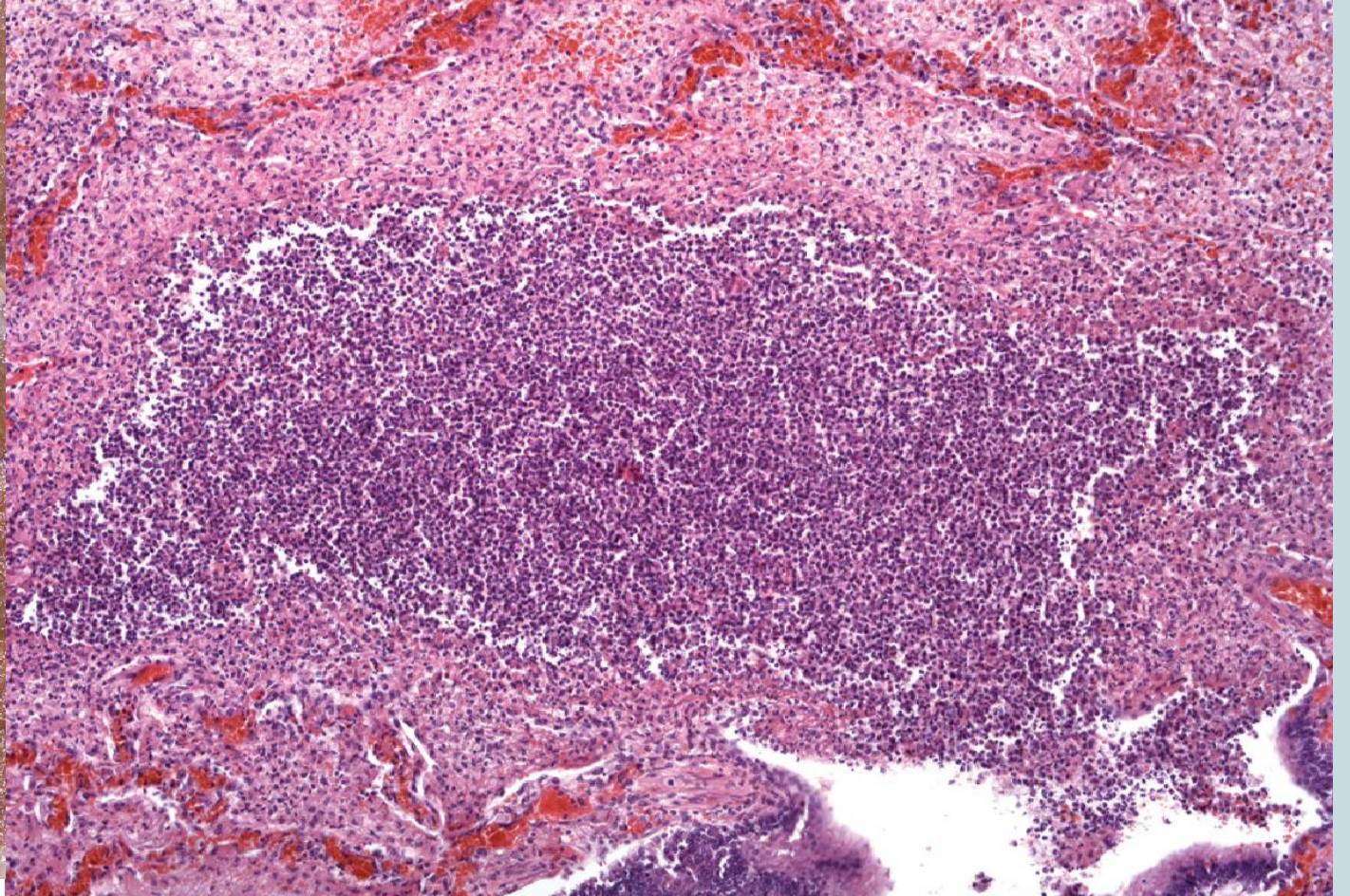
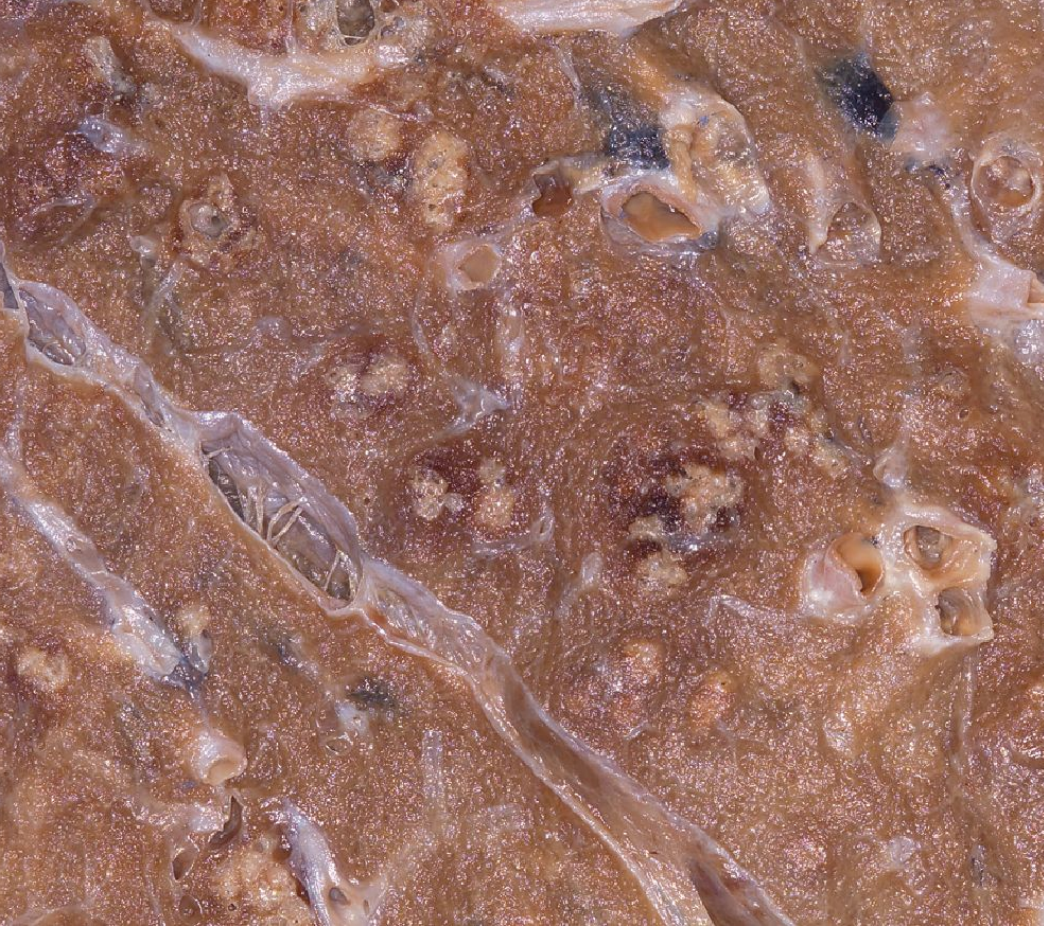
CASEOUS NECROSIS. TUBERCULOSIS OF THE LUNG, WITH A LARGE AREA OF CASEOUS NECROSIS CONTAINING YELLOW-WHITE (CHEESY) DEBRIS.



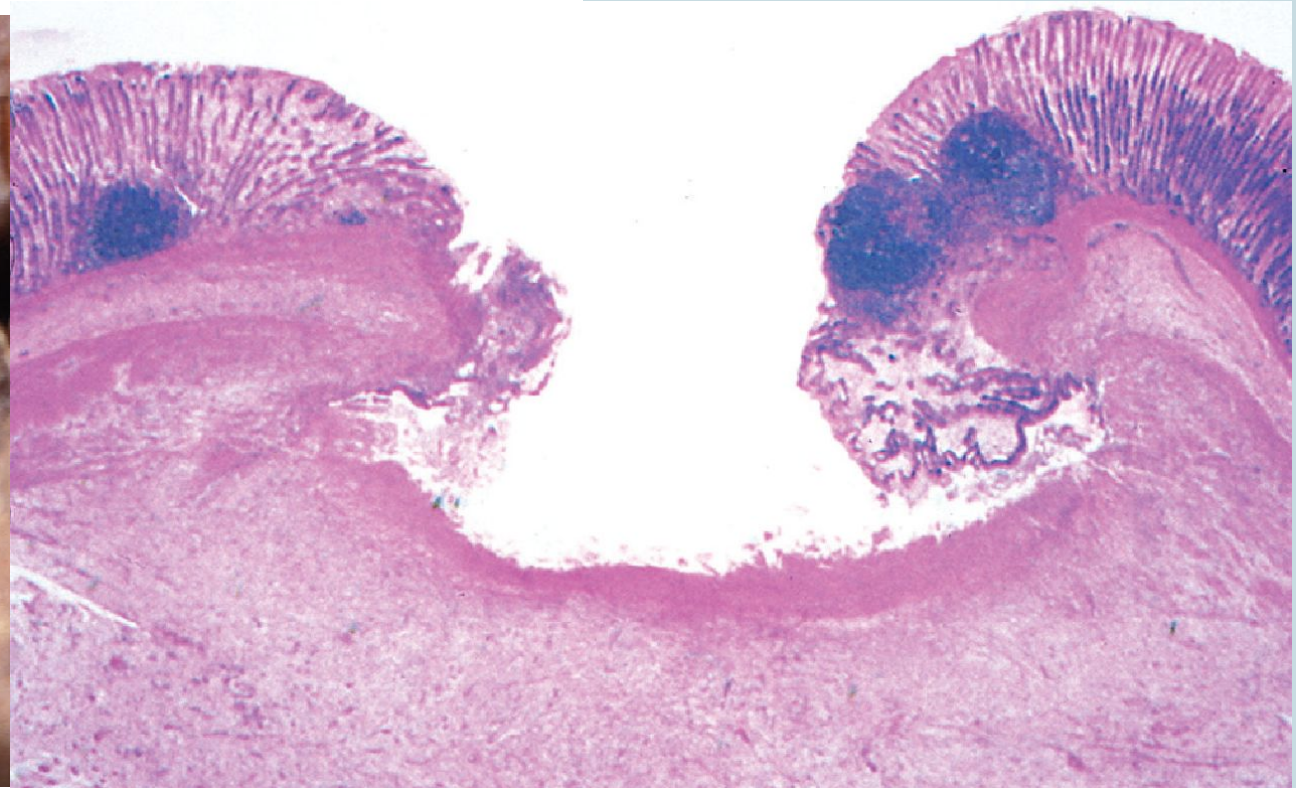
Fibrinoid necrosis in an artery in a patient with polyarteritis nodosa. The wall of the artery shows a circumferential bright pink area of necrosis with protein deposition and inflammation.



FIBRINOUS PERICARDITIS. (A) DEPOSITS OF FIBRIN ON THE PERICARDIUM. (B) A PINK MESHWORK OF FIBRIN EXUDATE (F) OVERLIES THE PERICARDIAL SURFACE (P).



PURULENT INFLAMMATION. (A) MULTIPLE BACTERIAL ABSCESSSES (ARROWS) IN THE LUNG IN A CASE OF BRONCHOPNEUMONIA. (B) THE ABSCESS CONTAINS NEUTROPHILS AND CELLULAR DEBRIS, AND IS SURROUNDED BY CONGESTED BLOOD VESSELS.



THE MORPHOLOGY OF AN ULCER. (A) A CHRONIC DUODENAL ULCER. (B) LOW-POWER CROSS-SECTION VIEW OF A DUODENAL ULCER CRATER WITH AN ACUTE INFLAMMATORY EXUDATE IN THE BASE.

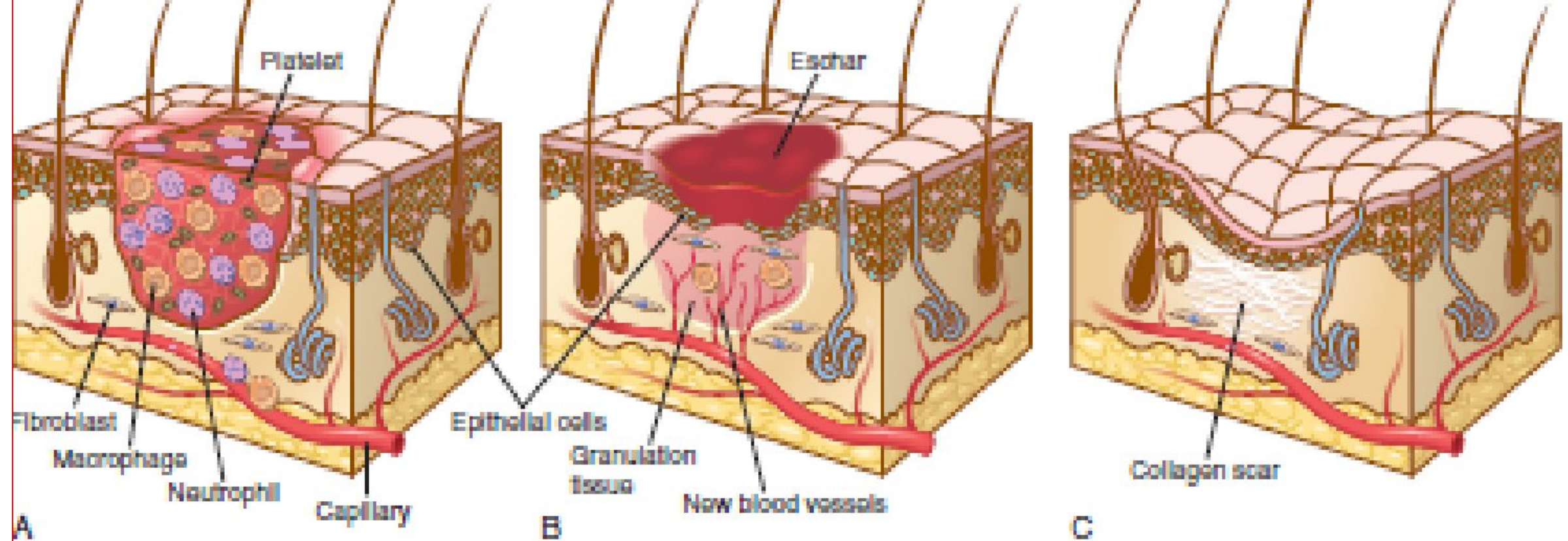


Fig. 3.24 Steps in repair by scar formation: healing of a large wound in the skin. This is an example of healing by second intention. (A) Hemostatic plug and inflammation. (B) Proliferation of epithelial cells; formation of granulation tissue by vessel growth and proliferating fibroblasts. (C) Remodeling to produce the fibrous scar.

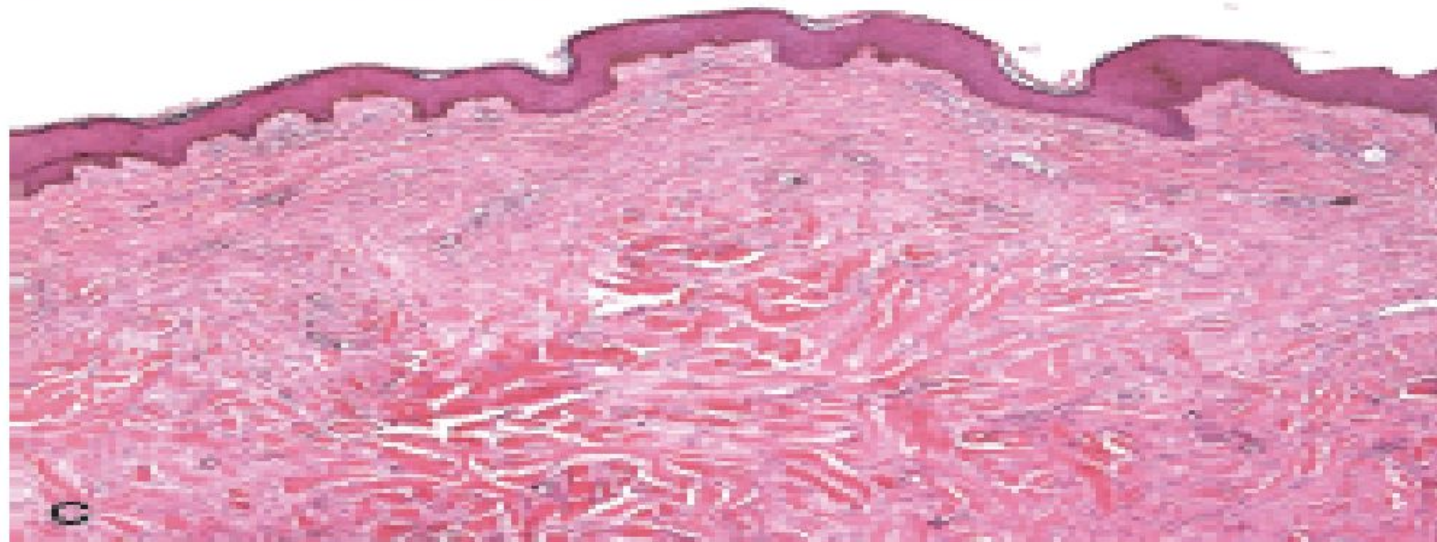


Fig. 3.28: Clinical examples of excessive scarring and collagen deposition. (A) Hypertrophic scar. (B) Keloid. (C) Microscopic appearance of a keloid. Note the thick connective tissue deposition in the dermis. (A–B from Enig SA, Margin P, Torricelli MC: Wound repair and regeneration mechanisms, standards and translation. Sci Transl Med 6:245 2014, p. 21.

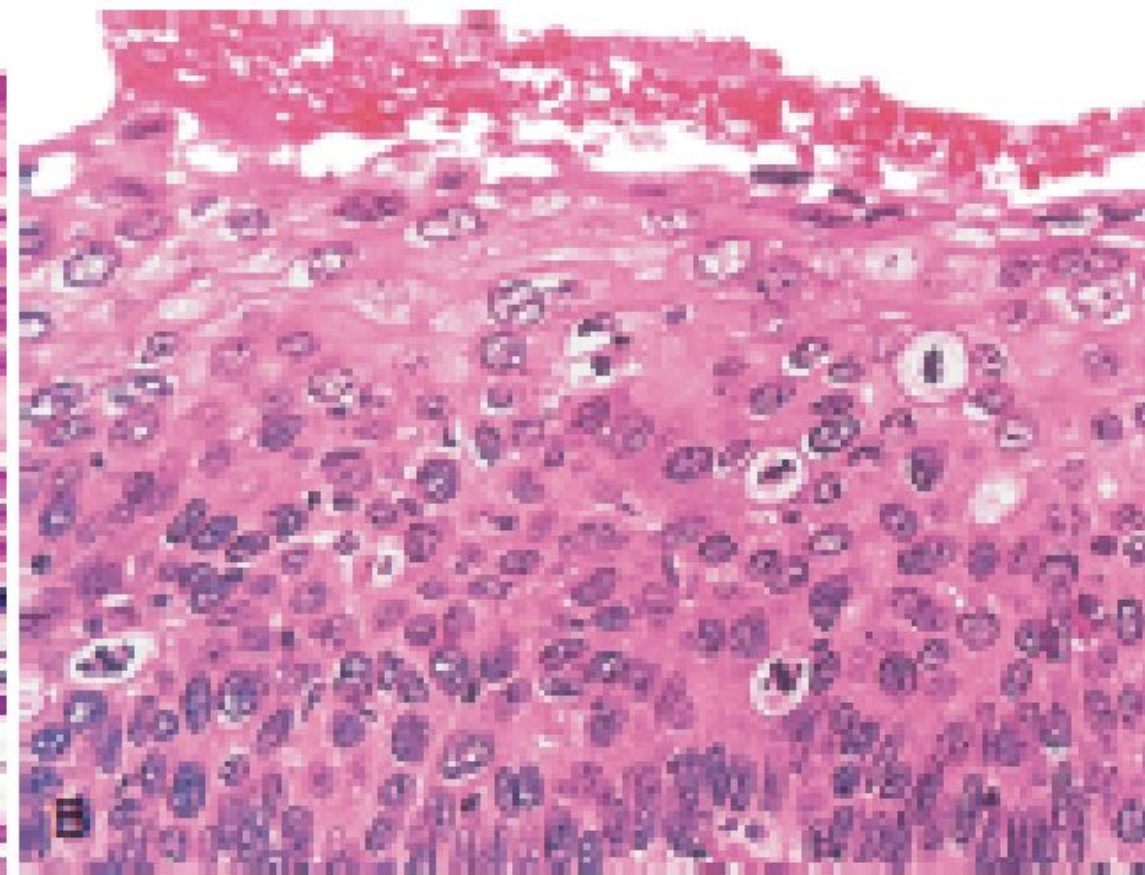
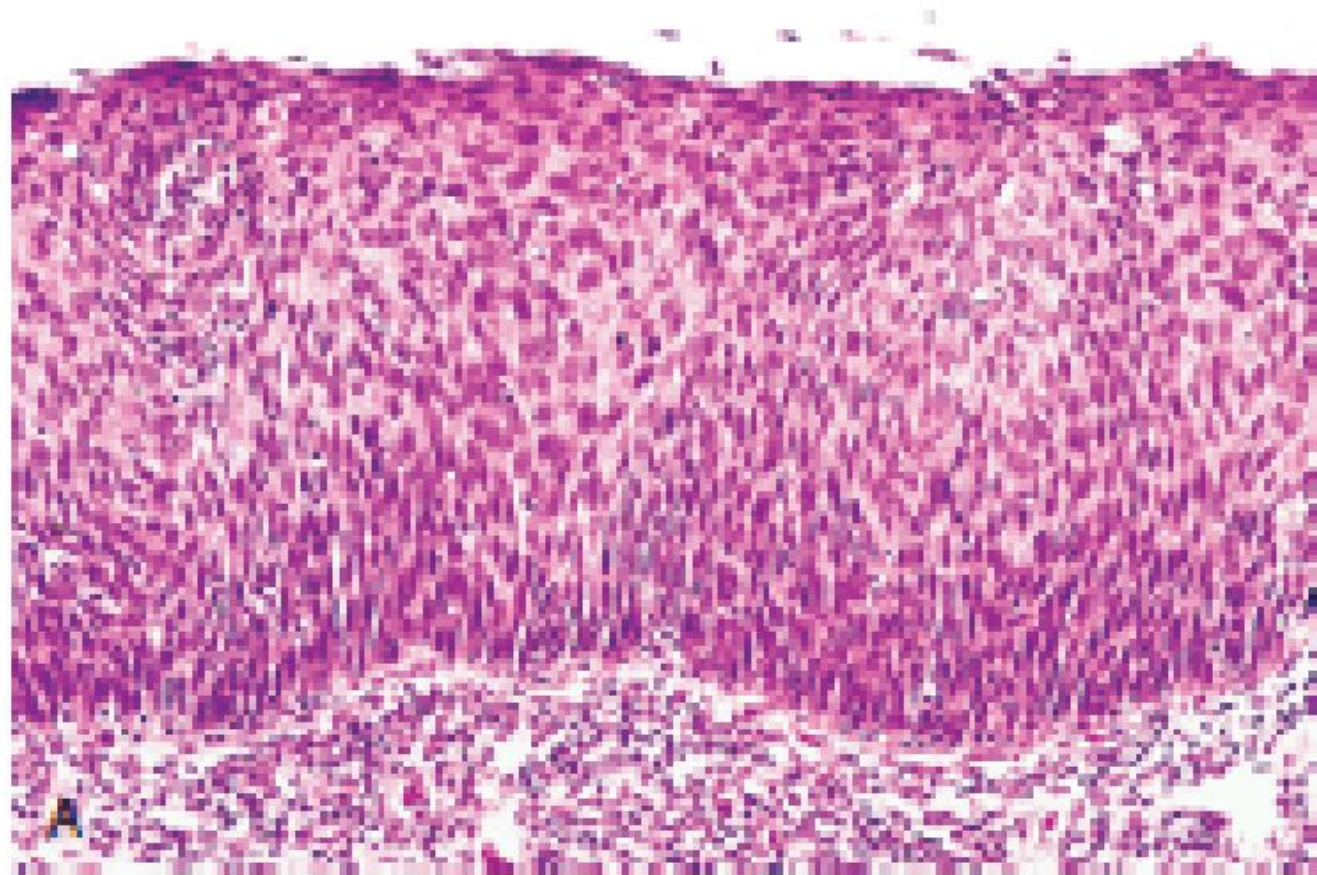


Fig. 6.6 Carcinoma in situ. (A) Low-power view shows that the entire thickness of the epithelium is replaced by atypical dysplastic cells. There is no differentiation of squamous cells. The basement membrane is intact, and there is no tumor in the subepithelial stroma. (B) High-power view of an area shows failure of normal differentiation, marked nuclear and cellular pleomorphism, and numerous mitotic figures extending toward the surface. The basement membrane (below) is not seen in this section.

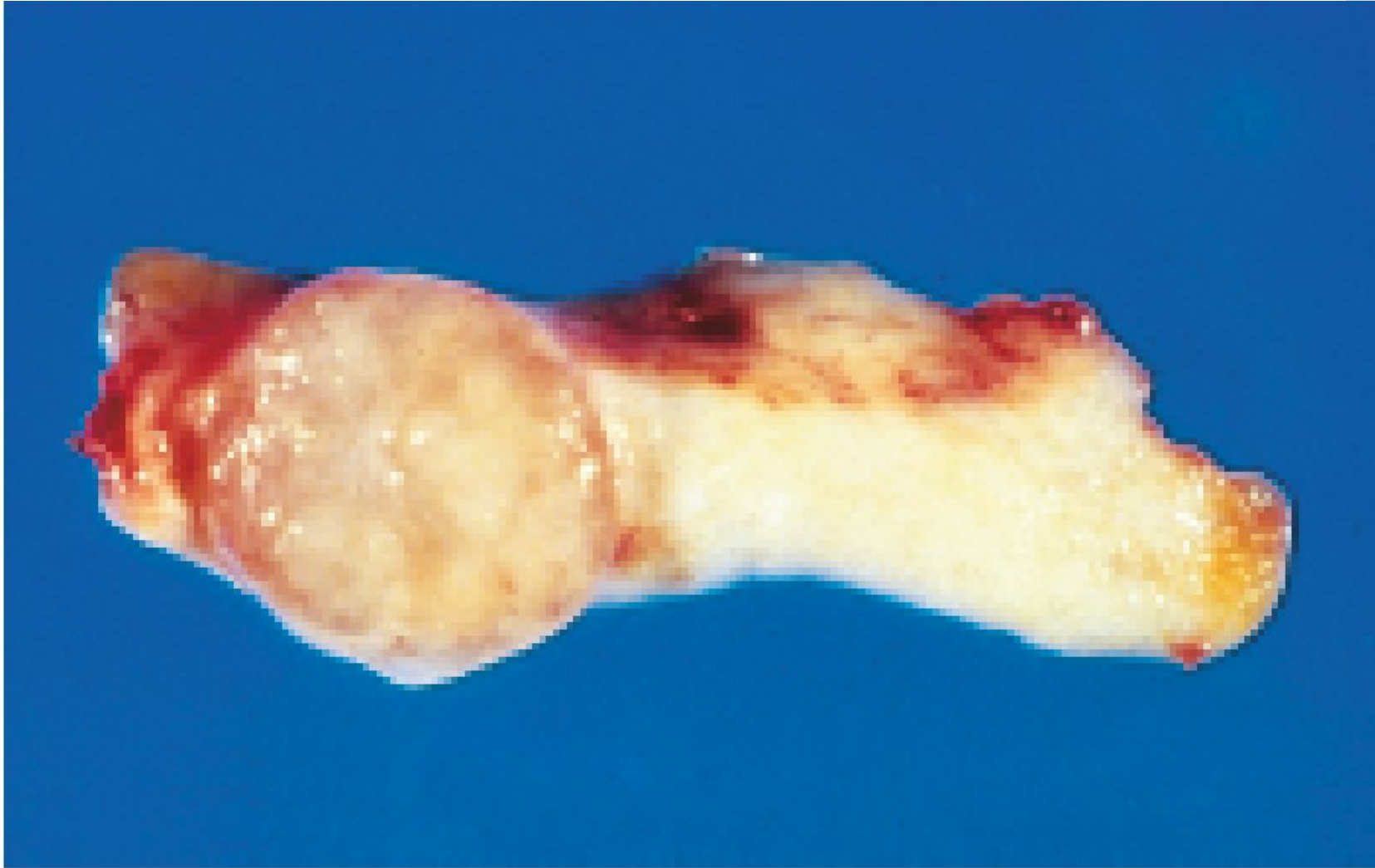


Fig. 6.7 Fibroadenoma of the breast. The tan-colored, encapsulated small tumor is sharply demarcated from the whiter breast tissue.

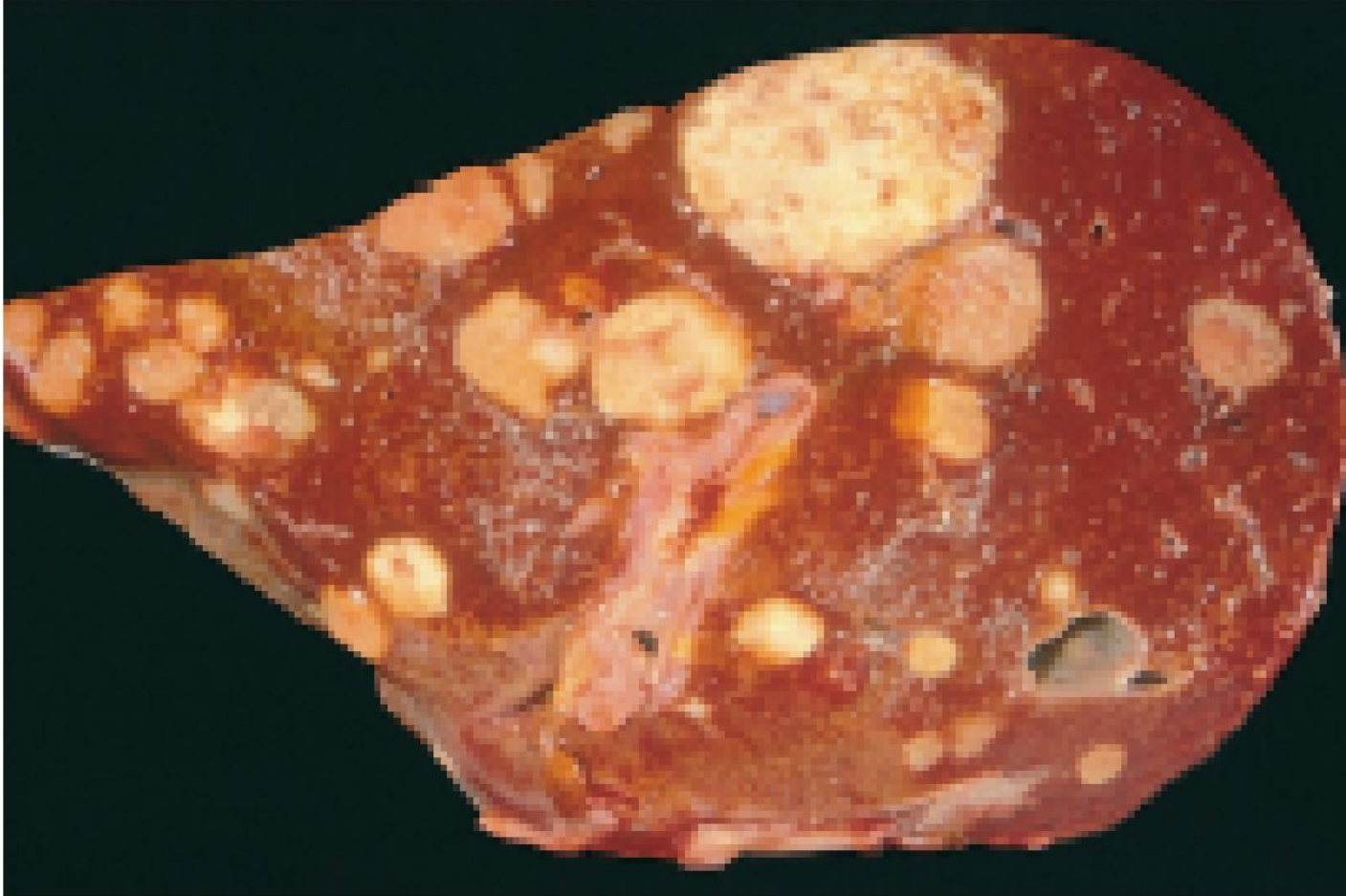


Fig. 6.11 A liver studded with metastatic cancer.

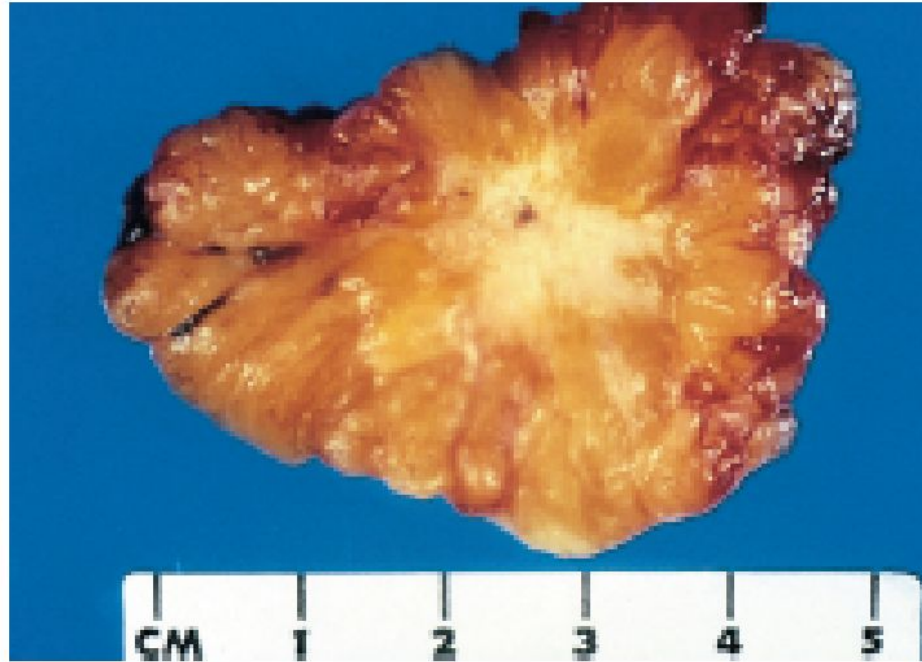


Fig. 6.9 Cut section of invasive ductal carcinoma of the breast. The lesion is retracted, infiltrating the surrounding breast substance, and was stony-hard on palpation.

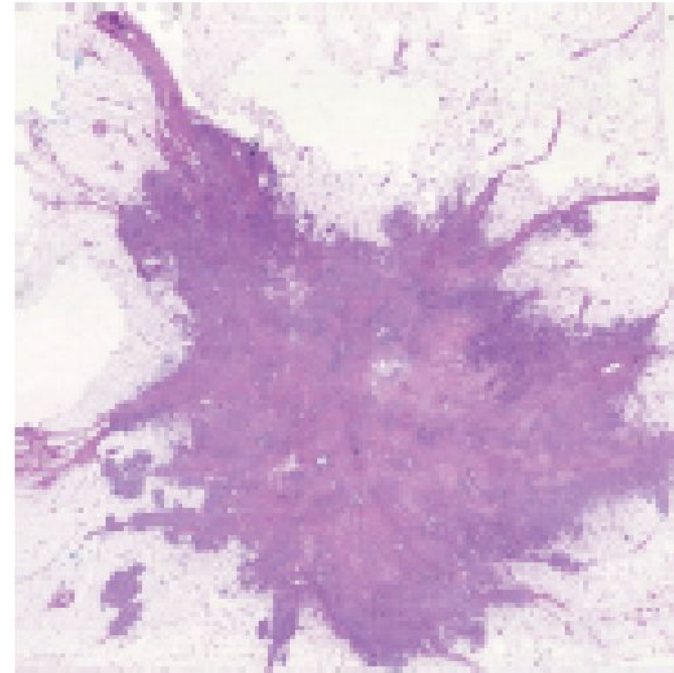


Fig. 6.10 Microscopic view of breast carcinoma seen in Fig. 6.9 illustrates the invasion of breast stroma and fat by nests and cords of tumor cells (compare with Fig. 6.8). Note the absence of a well-defined capsule. (Courtesy of Dr. Susan Lator, Brigham and Women's Hospital, Boston, Massachusetts.)

Any questions?

*Thank
You*