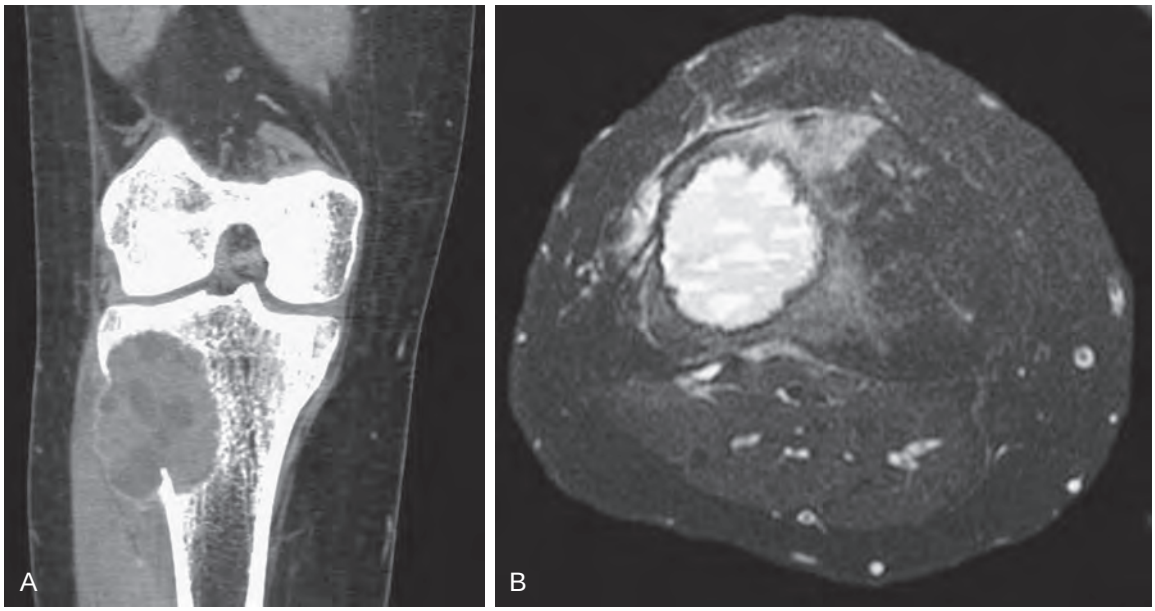

Figure 26-34 **A,** Coronal computed axial tomography scan showing eccentric aneurysmal bone cyst of tibia. The soft tissue component is delineated by a thin rim of reactive subperiosteal bone. **B,** Axial magnetic resonance image demonstrating characteristic fluid-fluid levels.

grow to 5 or 6 cm in size are classified as **nonossifying fibromas**; these are usually not detected until adolescence or adulthood.

MORPHOLOGY

Both fibrous cortical defect and nonossifying fibroma produce sharply demarcated radiolucencies with a long axis of a bone parallel to the cortex, surrounded by a thin rim of sclerosis (Fig. 26-36). They consist of gray to yellow-brown cellular lesions containing fibroblasts and macrophages. The cytologically bland fibroblasts are frequently arranged in a storiform (pinwheel) pattern, and the macrophages may take the form of clustered cells with foamy cytoplasm or multinucleated giant cells (Fig. 26-37). Hemosiderin is commonly present.

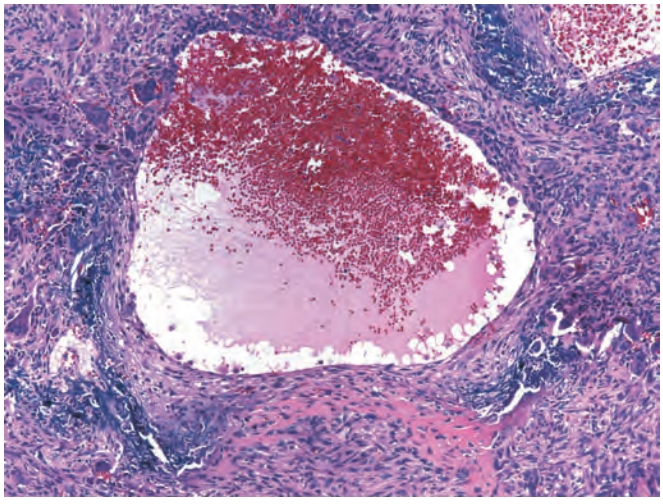

Figure 26-35 Aneurysmal bone cyst with blood-filled cystic space surrounded by a fibrous wall containing proliferating fibroblasts, reactive woven bone, and osteoclast-type giant cells.

Fibrous cortical defects are asymptomatic and are detected incidentally on radiographic studies. The findings are sufficiently specific on plain radiography that biopsy is rarely necessary. Most fibrous cortical defects have limited growth potential and undergo spontaneous resolution within several years, being replaced by normal cortical bone. The few that progressively enlarge into nonossifying fibromas may present with pathologic fracture or require biopsy and curettage to exclude other types of tumors.

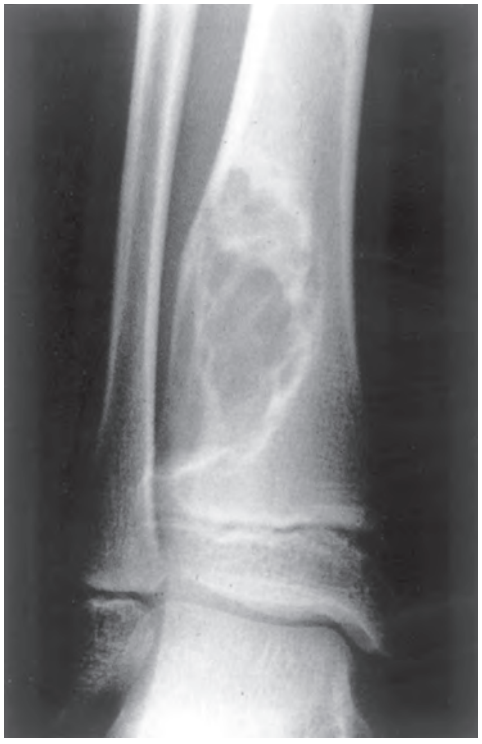

Figure 26-36 Nonossifying fibroma of the distal tibial metaphysis producing an eccentric lobulated radiolucency surrounded by a sclerotic margin.