Case Report 164

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Radiological Study

Fig. 1A, B. Anteroposterior and lateral films of the left knee show a discrete, spheroid lesion containing both radiolucent areas and zones of increased density in the lateral portion of the proximal tibial epiphysis. A thick sclerotic rim surrounds the lesion

History

A 14-year-old white boy presented with a history of persistent pain in the left knee of two years duration. Physical examination revealed point tenderness over the lateral aspect of the proximal end of the tibia. Laboratory studies were within normal limits.

Radiological examination disclosed a 1.5 cm mixed lytic and sclerotic lesion in the proximal tibial epiphysis (Fig. 1). A joint effusion was not demonstrated.

An excisional biopsy of the lesion was performed.
Histological Studies

Fig. 2A, B
A A photomicrograph of a histological section from the resected biopsy specimen (H and E stain × 40) demonstrates a nidus of osteoid and newly formed bone trabeculae, invested by highly vascular, loose connective tissue. Surrounding the nidus at the right and at the bottom of the photomicrograph is mature compact bone.

B A photomicrograph of the same specimen (H and E stain × 400), depicts a partially mineralized osteoid spicule lined by osteoblasts. Prominent capillaries are observed in the surrounding stroma.

Diagnosis: Osteoid Osteoma of Ossification Center of Tibia

The differential diagnosis of a lesion in this location and in this patient's age group should include chondroblastoma, enchondroma, solitary bone cyst, low-grade osteomyelitis, eosinophilic granuloma and osteoblastoma.