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Chondroblastoma in the Distal Femur — Report of One Case

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Key Words
Chondroblastoma
Curettage

ABSTRACT

A 13-year-old boy had suffered from right knee painful swelling for 3 months, and contracture of the right knee ensued. The image study suggested a benign cystic lesion in the distal femoral area. At surgery, a cystic lesion in the medial femoral condyle was identified. Severely hypertrophic synovium was another striking finding. The tumor was completely removed by curettage, and synovectomy was also performed during the same surgery. During follow-up, no complication was noticed, and the range of motion of the right knee gradually recovered. (N. Taipei J. Med. 2000; 2:145-148)

INTRODUCTION

Originally termed epiphyseal chondromatous giant cell tumor by Codman in 1931, this tumor was renamed by Jaffe and Lichtenstein in 1942.[1] Chondroblastoma is a rare neoplasm, comprising less than 1% of all primary bone tumors. It is a benign cartilaginous tumor of the bone that typically presents in the second decade of life, with a male to female ratio of about 2:1.[2] The lesion usually arises eccentrically in an epiphysis or an apophysis (> 95% of cases), but can also affect the metaphysis.[5] We report a patient who presented with a tumor in the epiphysis of the right femur with severe synovial proliferation in the right knee joint. A review of the literature follows.

CASE REPORT

A 13-year-old boy came to our clinical attention due to a 3-month history of right knee pain without antecedent history of trauma in the area. The knee demonstrated marked swelling. Physical examination revealed a limited range of motion of between 10° to 70° flexion. Right thigh atrophy as a consequence of long-term disuse was also noticed. No lesion was found in the chest radiograph. Laboratory analysis revealed mild leukocytosis, but other data were within normal limits. Plain radiographs of the right knee (Fig. 1) revealed a solitary osteolytic lesion in the distal femoral epiphysis. The margins were well circumscribed with minimal sclerosis. No calcification within the lesion nor periosteal reactions were noticed. MR imaging (Fig. 2) showed a lesion of mixed signal intensity in the medial femoral condyle. The sclerotic margin seen radiographically corresponded to a very low signal intensity rim on the MR image. There was no extension through the cortex.

The patient was brought to surgery for a therapeutic/diagnostic curettage of the lesion. We took a medial

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