

Bone Infarct Mimicking Infection in a Young Adult Sickler

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To the Editor

A 23-year-old known sickle cell patient presented with left knee swelling and pain of 10 days duration. He was treated several times in the past for painful crises. Currently, at rest the knee pain was 8/10 and upon palpation or movement the pain was 10/10. Moving the knee at all aggravated his symptoms. His temperature was 101. The laboratory investigations demonstrated high white blood cell count at 19,000/ μ L (normal 4,000 – 11,000/ μ L) and a hemoglobin level of 8.5 g/dL. Initial plain x-ray was normal. An arthrocentesis yielded 30 cc of yellow dark fluid and synovial fluid analysis revealed 3,000 WBC (80% PMN) with no crystals. Final culture was unrevealing.

A magnetic resonance imaging (MRI) showed increased T2 signal in the distal femur and proximal tibia (Fig. 1). The fatty yellow marrow in the distal femur and proximal tibia was replaced with hematopoietic red marrow. These findings indicated bone edema and acute bone infarction.

Patients with sickle cell anemia are prone to both infarctive and infective crises. Clinical differentiation between both can be difficult. Initial radiographs are usually normal with an acute infarction [1]. As the condition becomes more chronic sclerosis develops [1]. MRI has an important role in demonstrating the area of infarct in the earlier stages [2]. Bone infarcts of the knees are not as common as in the hips and shoulders [2]. Thus, it is important to consider infarctions in such atypical sites as a differential diagnosis of painful knee pain in sicklers.

Disclosure

None.

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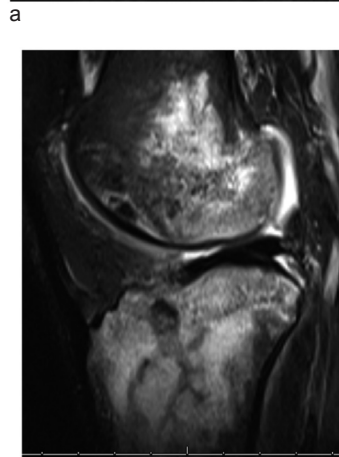
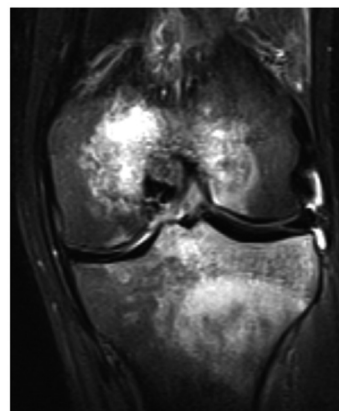


Figure 1. Magnetic resonance imaging showed increased T2 signal in the distal femur and proximal tibia (a, b).