CLINICAL INFORMATION

Left medial knee pain and swelling for 2 weeks, injured during football, assess for medial meniscal tear, initial visit.

COMPARISON

None

TECHNIQUE

Axial PD FS, coronal T1 and STIR, sagittal PD and PD FS imaging is performed through the left knee without contrast.

FINDINGS

FLUID / INTRA-ARTICULAR BODIES: There is a small knee effusion and a small popliteal cyst present. There is circumferential soft tissue edema and swelling at the level the knee most prominent posteriorly.

MENISCI:
Medial: The medial meniscus is normal.
Lateral: The lateral meniscus is normal.

CRUCIATE LIGAMENTS: The anterior cruciate ligament contains mild intrasubstance edema suggestive of a grade 1 sprain but there is no high-grade or full-thickness tear. The PCL is normal.

COLLATERAL LIGAMENTS: The medial collateral ligament is normal. The iliotibial band and fibular collateral ligament are normal. There is grade 1 strain/contusion involving the proximal gastrocnemius muscle and the distal biceps femoris muscle.
EXTENSOR MECHANISM: The patellar and quadriceps tendons are normal.

CARTILAGE:
Patellofemoral compartment: The patellofemoral articular surfaces are normal.
Medial tibiofemoral compartment: The medial compartment articular surfaces are normal.
Lateral tibiofemoral compartment: The lateral compartment articular surfaces are normal.

BONE MARROW: There are extensive bone contusions involving the distal femur and proximal tibia. There is a nondisplaced Salter II fracture through the distal femoral growth plate with fluid within the growth plate and extensive adjacent marrow edema and bone contusion within the metaphysis. The metaphyseal component of the fracture is noted along the peripheral margin of the lateral femoral condyle with a large subperiosteal hematoma and uplifting and displacement of the periosteum along the posterolateral aspect of the distal femoral metaphysis. There is extensive bone contusion within the epiphyseal region of the proximal tibia. There is a small linear area of low signal abnormality adjacent to the growth plate posteriorly suggestive of a small incomplete nondisplaced transverse fracture through the posterior metaphyseal region of the proximal tibia seen on image 11 of series 9.

IMPRESSION

1. There are extensive bone contusions of the distal femur and proximal tibia. There is a nondisplaced Salter II fracture through the growth plate of the distal femur with the metaphyseal component of the fracture located along the posterior peripheral aspect of the lateral femoral condyle. There is a subperiosteal hematoma with displacement of the periosteum along the posterolateral aspect of the distal femoral metaphysis.

2. Extensive bone contusion of the proximal tibia with a small incomplete nondisplaced transverse fracture line noted along the posterior margin of the proximal tibial metaphysis.

3. Small knee effusion and popliteal cyst with posterior soft tissue edema and swelling.

4. Grade 1 sprain of the anterior cruciate ligament but no high-grade tear or disruption.

5. Grade 1 strain of the proximal gastrocnemius muscle and distal biceps femoris muscle.

6. No meniscal tear.

7. The articular surfaces are well preserved.

[NationalRad Musculoskeletal Radiologist]
Board Certified Radiologist

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