PATHOLOGY
Osteochondritis dissecans of the medial femoral condyle with documented long-term natural history

TREATMENT
Nonoperative treatment

SUBMITTED BY
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CHIEF COMPLAINT AND HISTORY OF PRESENT ILLNESS
The patient is currently a 39-year-old male orthopedic surgeon who was diagnosed with symptomatic osteochondritis dissecans of his medial femoral condyle of his left knee at the age of 14. At that time, he complained of weight-bearing pain and discomfort on the medial aspect of his left knee with activity-related swelling. When initially diagnosed as having osteochondritis dissecans, he was treated with 8 weeks of nonweight bearing with crutches and asked to refrain from sports or impact activities thereafter. He remained asymptomatic, but was followed up regularly for radiographic evaluation to assess for evidence of instability.

PHYSICAL EXAMINATION
He ambulates with a nonantalgic gait and stands in symmetric physiologic varus. He has no effusion and full range of motion. He has no tenderness over his medial femoral condyle. His entire knee examination is normal.

RADIOGRAPHIC EVALUATION
A series of radiographs obtained from the age of 14 to the present demonstrate persistence of the osteochondritis dissecans lesion with no progression or evidence of instability. Radiographs demonstrate a lesion of osteochondritis dissecans of the medial femoral condyle of his left knee (Figures C1.1 through C1.3).

FOLLOW-UP
The patient remains completely asymptomatic and active in several high-level sports including skiing and running. Serial radiographs demonstrate persistence of the lesion.

DECISION-MAKING FACTORS
1. Diagnosed early at a time when growth plates remained open.
2. Initial attempt at nonoperative treatment with protected weight bearing was successful in rendering him asymptomatic.
3. Despite persistence of the lesion demonstrated on plain radiographs and magnetic resonance imaging (MRI), he remains asymptomatic and highly active.
4. An identified target lesion that can be reliably followed clinically and radiographically for evidence of progression or instability.
Case 1

FIGURE C1.1. Initial radiographs of a 14-year-old male with symptomatic osteochondritis dissecans of the left knee. Anteroposterior (A) and lateral (B) radiographs demonstrate an in situ lesion of osteochondritis dissecans of the medial femoral condyle.

FIGURE C1.2. Radiographs obtained 24 years later. Anteroposterior (A) and lateral (B) radiographs demonstrate no evidence of fragmentation or collapse. (C) Coronal MRI demonstrates no fragmentation or evidence of significant instability.