

Arthroscopic Removal of Separated Bipartite Patella Causing Snapping Knee Syndrome

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Introduction

The bipartite patella is a developmental osseous variant that is found in approximately 2% to 6% of the population. However, separation of the bipartite patella is rare, with 9 cases reported in the literature. I present a case of snapping knee syndrome due to separated bipartite patella. The accessory bone was removed by arthroscopy, which has rarely been described in the literature.

Case

A 37-year-old male police officer presented with painful snapping of the right knee. Physical examination revealed motion on the lateral aspect of the patella. Audible and palpable snapping was observed during range of motion of the knee. Plain radiograph showed a Saupé's type 2 bipartite patellae on the involved side. Skyline view radiographs demonstrated aberrant motion of the bony fragment, which was located outside of the lateral ridge of the trochlea in 30° flexion, and flipped onto the lateral femoral condylar trochlea on 130° flexion. Standard anteromedial portal was used for arthroscopy, and arthroscopic scissors were inserted through an anterolateral or superomedial portal. The accessory bone was freed from the joint capsule and removed en bloc via arthroscopic portal with a grasper. The excised bone was 28×14×11 mm in size. After excision, the patient reported no painful snapping and returned to activities of daily living.

Discussion

Because the bipartite patella is usually asymptomatic, the mechanism of the painful snapping deserves attention. The cause of pain in a patient with a bipartite patella is assumed to be the mobility in the abnormal synchondrosis. The traumatic event could have caused the pathologic mobility of the synchondrosis, which had been stable, and hence the painful snapping syndrome. Although the morphological diagnosis of bipartite patella is unquestionable on plain radiographs, the presence of bipartite patella per se

does not always explain the accompanying anterior knee pain, all-the-more with the plethora of causes of the anterior knee pain. The bone marrow edema on the MRI was shown to have a poor correlation with anterior knee pain.

