

Atraumatic Intra-Articular, Extra-synovial Ganglion Cyst of the Lateral Knee Deep to the Iliotibial Band: A Case Report and Review of the Literature

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INTRODUCTION:

Ganglion cysts are mucin-filled synovial cysts commonly found on the dorsal surface of the hands and feet. Intra-articular ganglion cysts of the knee are rare, and when they present clinically, are typically treated operatively through arthroscopic surgery. We present the first reported case of an atraumatic intraarticular, extra-synovial ganglion cyst of the lateral knee located deep to the iliotibial band that was successfully treated without operative intervention through repeated intra-articular aspirations of the knee.

METHODS:

This presentation is a case report and review of literature looking at the case of an atraumatic ganglion cyst of the lateral knee located deep to the iliotibial band which occurred in November of 2022 at private-practice system located in San Francisco, CA. Institutional Review Board approval and informed patient consent was obtained for this case study.

RESULTS:

A 61 year-old female presented to our orthopaedic clinic with atraumatic left knee pain and swelling for the past six months. She reported lateral left knee pain, stiffness, and the inability to fully flex and extend knee. Physical examination of the lateral left knee revealed a 4x4 cm area of swelling over the lateral joint just posterior to the iliotibial (IT) band and anterior to the biceps femoris. MRI imaging of the left knee revealed a multilobulated, multiloculated cystic lesion located deep to the IT band, superficial to the fibular collateral ligament and lateral femoral condyle that extended posterior to the distal femoral diaphysis and measured approximately 5.8 cm CC by 5.4 cm AP by 3.3 cm ML. Six months prior to her visit to our clinic, she received plain film radiographs of the left knee that were normal, and an ultrasound of the left knee revealing a potential Baker's cyst. Surgical excision was not indicated nor recommended given the patient lacked neurovascular manifestations or severe, functionally limiting symptoms. The patient elected to proceed with intra-articular aspiration of the left knee, and 25cc of yellow, gelatinous fluid was aspirated. The patient returned 4 times over the next 6 months due to symptomatic inflammation of the left knee and received aspiration three out of these four visits. The patient has not required additional injections beyond the three previously mentioned aspirations and has been able to avoid surgery with near elimination of her pain and complete restoration of knee mobility.

DISCUSSION:

To our knowledge, this is the first case highlighting a patient presenting with an atraumatic ganglion cyst of the lateral knee located deep to the iliotibial band that was treated nonoperatively through repeat joint aspirations. With this case report, we hope to add to existing orthopaedic literature the successful nonoperative treatment of an atraumatic ganglion cyst of the lateral knee located deep to the IT band, a pathology that typically occurs following surgical intervention and is commonly treated arthroscopically.

SIGNIFICANCE/CLINICAL RELEVANCE:

Intra-articular ganglion cysts of the knee are a rare presentation in clinical orthopaedics and typically are treated arthroscopically. We highlight the successful treatment of an intra-articular ganglion cyst of the lateral knee deep to the iliotibial band treated nonoperatively through repeat joint aspirations.

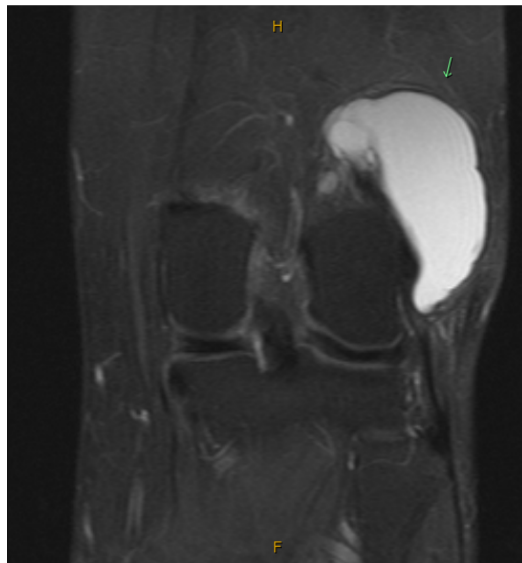


Figure 1: T2 coronal view MRI without contrast of the left knee depicting multilobulated cystic lesion deep to the IT band.



Figure 2: Physical Examination of the left knee depicting a 4x4 cm area of swelling over the lateral knee just posterior to the IT band and anterior to the biceps femoris.

