

Title: Infrapatellar Fat Pad Ganglion Cyst as an Uncommon Cause of Persistent Knee Pain in a Physically Active Adult: A Case Report

Purpose/Hypothesis

Ganglion cysts arising from the infrapatellar (Hoffa's) fat pad are rare, reported in only 1–2% of intra-articular knee ganglia, and are frequently overlooked as causes of anterior knee pain. Their symptoms often overlap with patellofemoral or ligamentous pathologies, contributing to delayed diagnosis. We present a case in a physically active adult whose clinical examination initially suggested mechanical instability. We hypothesized that this case underscores the importance of considering uncommon soft-tissue lesions when pain persists despite appropriate rehabilitation.

Methods

A 34-year-old male ship engineer and recreational sports player presented with three months of persistent anterior knee pain following minimal, insignificant trauma. His work routinely involves climbing, kneeling, crawling, and prolonged walking. Examination showed mild knee effusion, tenderness at the patellar lower pole, tibial tuberosity, and medial joint line, with a mildly positive pivot-shift test. There were no signs of significant trauma, osteochondral lesions, or ligament insufficiency. Structured physiotherapy resulted in only partial improvement. Owing to persistent symptoms, an MRI of the knee was obtained.

Results

MRI demonstrated a well-circumscribed ganglion cyst measuring 18 × 12 × 13 mm within the posterior aspect of the infrapatellar fat pad, accompanied by surrounding inflammatory changes extending into the anterior compartment. Ligaments, menisci, and articular cartilage appeared intact, confirming the absence of osteochondral injury. The imaging findings correlated with the patient's symptoms and explained the misleading clinical signs, including joint line tenderness and the mildly positive pivot-shift. With only partial symptomatic improvement after physiotherapy, the patient is planned for arthroscopic excision of the cyst.

Conclusions

This case highlights that although infrapatellar fat pad ganglion cysts are rare (\approx 1–2% of intra-articular ganglia), they should be considered in patients with persistent anterior knee pain unresponsive to conservative care. Such cysts can mimic mechanical instability and other common knee pathologies, especially in individuals with physically demanding jobs or sporting activity. MRI plays a crucial role in confirming the diagnosis when clinical findings are inconclusive. Early recognition of this uncommon condition may prevent misdirection of treatment and facilitate timely definitive management.