Abstract

Meniscal Ossicle are a rare clinical entity with an incidence of only 0.15% [1]. However, it may cause functional limitations and its diagnosis is confused with other knee pathologies. We shall share here our experience in the diagnosis and surgical treatment of a case of meniscal ossicle by arthroscopy, utilizing the anterolateral and anteromedial portals, with intercondylar and posteromedial portal access.

Case Report

Meniscal Ossicle: Arthroscopic Treatment via Intercondylar Access Combined with Posteromedial Portal

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Figure 1 x-rays of the knee showing the bone body in the posterior region of the medial compartment.

Figure 2 Sagittal MRI cuts showing the ossicle in the posterior horn of the medial meniscus.

Keywords

• Meniscal Ossicle
• Arthroscopy
• Arthritis

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emergence of bone tissue in the menisci as a result of metaplasia [5,6] due to inflammatory, post-traumatic [7], or degenerative changes of the meniscus [8,9].

The first reports of meniscal ossicles date back to 1931 with Wollenberg [10] and have since exceeded 60 cases [1-3,5-31] described in international scientific literature in the last 85 years. Watson-Jones [5] described two cases in 1934 and theorized about the occurrence of metaplastic changes. Pedersen identified meniscal ossicles in rodents in 1949, and in 1958 Rosen [3] described three cases considering an anatomical variation named lunula. The literature indicates preponderance in males (81.3% to 84%) in various age groups (12 to 76 years), in most cases young adults (mean age: 25.6 to 26.4 years). The meniscal ossicle is frequently found in the medial meniscus (92% to 94%), almost exclusively in its posterior horn [9,18]. Patients may present asymptptomatically or with pain and a limited range of motion [2,9]. Radiographic examinations point to the presence of intra-articular calcification and the differential diagnoses are avulsion fracture, intra-articular loose body (osteochondral fracture) and chondrocalcinosis [1,9,21]. The MRI allows for the diagnosis of...
meniscal ossicle due to the presence of a lesion in the substance of the meniscus, circular or triangular in shape, exhibiting a hyper signal center in T1 and surrounded by a hypo signal halo. The appearances are consistent with medular bone tissue and cortical bone, respectively. The examination further provides its precise location, approximate dimensions, and allows the identification of associated lesions [1,21]. Treatment tends to be conservative in asymptomatic cases. Patients experiencing pain or history of recent trauma also receive symptomatic prescription medication and physiotherapy. Refractory cases or those with associated lesions must be addressed surgically, with resection of the meniscal ossicle and treatment of the other lesions. Our patient had already been submitted to two arthroscopies and persisted with symptoms, and that probably occurred due to the fact that the posterior compartment of the knee was not examined on these procedures. Arthroscopy with intercondylar access [32] associated with posteromedial portal [33] allows for good visualization of the posterior region of the femoral condyle, free from blind spots, in addition to protecting the medial femoral condyle from the risk of iatrogenic lesions, hence being a safe and efficient strategy in the treatment of these lesions [32,33]. It is essential when suspecting of a meniscal ossicle to access the posterior compartment of the knee utilizing the arthroscopic technique described above otherwise, the knee surgeons have the knowledge of the existence of this rare pathologic condition that when suspected needs the arthroscopic approach to the posterior compartment.

REFERENCES


