

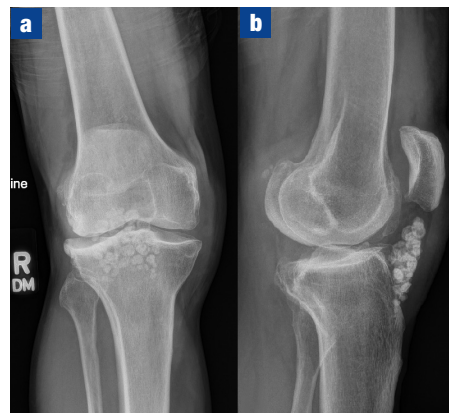
Localized synovial chondromatosis of the knee: assessment and management

Synovial chondromatosis is an uncommon, benign neoplastic process typically affecting adult men and most commonly involving the knee. It is characterized by synovial metaplastic transformation to small cartilaginous nodules at the internal part of the synovial membrane (Murphey et al, 2007; Larbi et al, 2016). It can be generalized or, more rarely, localized. Symptoms associated with localized disease may include pain, swelling, restricted motion, crepitus, locking and giving way (Draghi et al, 2016). Diagnosis is established with plain radiographs and magnetic resonance imaging.

This article presents what the authors believe to be the first case in the literature of localized synovial chondromatosis confined to the Hoffa's fat pad (infrapatellar fat pad) of the knee in a 56-year-old fit and well man who presented following a trauma to the knee while pushing a wagon (*Figures 1 and 2*) (Hoffa's fat pad is one of the knee fat

pads interposed between the joint capsule and the synovium located posterior to the patellar tendon and anterior to the capsule and is richly innervated, making it a possible source of anterior knee pain.) On further questioning, he had been struggling with anterior knee pain and progressive loss of movement. Management options include conservative measures or surgical excision, either as a staged procedure or at the time of knee replacement when indicated. The patient was managed symptomatically because the calcified bodies were embedded within the tendon. **BJHM**

Figure 1. a. Anteroposterior and (b) lateral radiographs of the knee with multiple ossific densities in the Hoffa's fat pad as well as mild degenerative changes in all three compartments of the knee.



Draghi F, Ferrozzi G, Urciuoli L, Bortolotto C, Bianchi S. Hoffa's fat pad abnormalities, knee pain and magnetic resonance imaging in daily practice. *Insights Imaging*. 2016 Jun;7(3):373–383. <https://doi.org/10.1007/s13244-016-0483-8>

Larbi A, Viala P, Cyteval C et al. Imaging of tumors and tumor-like lesions of the knee. *Diagn Interv Imaging*. 2016 Jul-Aug;97(7-8):767–777. <https://doi.org/10.1016/j.diii.2016.06.004>

Murphey MD, Vidal JA, Fanburg-Smith JC, Gajewski DA. Imaging of synovial chondromatosis with radiologic-pathologic correlation. *Radiographics*. 2007 Sep-Oct;27(5):1465–1488. <https://doi.org/10.1148/rg.275075116>

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Figure 2. Magnetic resonance imaging scan of the knee with T2-weighted images – (a) coronal, (b) sagittal, (c) axial – which demonstrate multiple low signal filling defects seen within fluid space in the infrapatellar region of Hoffa's fat pad with associated small joint effusion in keeping with localized synovial chondromatosis.

