Case 7860

Bilateral Lipoma Arborescens and Osteoarthritis
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Section: Musculoskeletal system
Case Type: Clinical Cases
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Patient: 44 years, male

Clinical History:
A 44 year old man presents with bilateral knee pain and swelling for almost 2 years.

Imaging Findings:
A 44 year old male presents with a history of bilateral knee pain and swelling for almost 2 years. Plain radiographs show a bilateral severe narrowing of the medial compartment of tibio-femoral joints with remodelling of the medial tibial plateau, more so on the right side. Genu varus deformity is noted bilaterally. There is widening of the lateral compartment with marginal osteophytic formation. Severe degenerative changes are noted at the patellofemoral articulation. Tricompartmental osteophytic formation is noted. There are some intra-articular ossified bodies noted in the right knee which could represent detached osteophytes. Anterior to the distal femur, there is a somewhat heterogeneous soft tissue density with a convexed edge.

MRI shows large diffuse masses within the suprapatellar bursae bilaterally. These masses follow fat signal intensities in all imaging sequences. They have branching and arborisation appearance. These fatty lesions are suppressed on fat suppressed sequences with enhancement of the adjacent synovium. Large joint effusion is present. The findings are in keeping with lipoma arborescens.

Discussion:
Lipoma arborescens (LA) is a benign hyperplastic process that has been defined as a diffuse collection of fat replacing the subsynovial layer and resulting in the formation of villous projections. Clinically, LA generally results in mild pain together with a long-standing effusion, especially in the knee joint. Many patients are symptomatic for several years. LA is a rare, poorly understood condition that typically affects the knee. The disease is typically considered to be a unilateral condition. Bilateral disease has been reported but is relatively uncommon. We report a case of bilateral knee LA in a patient who also had an associated finding of advanced bilateral knee osteoarthritis. While the presence of bilateral disease in the case we present is rare, it is not unique. There are several case reports in the literature describing this finding. What makes our case unusual is the presence of associated advanced bilateral osteoarthritis. Our patient was relatively young and had no history of trauma or other disease process predisposing to premature osteoarthritis. In addition, the osteoarthritic change was bilateral and symmetrical, similar to the extent of his LA.

The management of LA is usually either anterior open synovectomy or more recently arthroscopic synovectomy, especially if the lesion is small and bilateral. The peak age incidence for LA is between the third and fifth decades; however, the disease is also relatively common in children. The knee is the joint most often involved: however, involvement of other joints (e.g. shoulder, wrist, hip, and ankle) has also been reported. The association between LA and premature osteoarthritis of the knees was postulated before by Al-Ismail et al. We
report this case to stress the possibility of this association.

**Differential Diagnosis List:** Bilateral lipoma arborescens with associated advanced bilateral osteoarthritis

**Final Diagnosis:** Bilateral lipoma arborescens with associated advanced bilateral osteoarthritis

**References:**


Figure 1

Description: MRI images

Origin:
Description: MRI images
Origin:
Description: MRI images Origin:
Figure 2

Description: plain radiographs

Origin:
Description: plain radiographs
Origin:
Description: plain radiographs
Origin: