



Lipoma Arborescens of knee

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Introduction

Synovium is an uncommon site for primary tumors and most of them are benign. Lipoma Arborescens (LA) is one of them. It is a relatively unusual, benign, intra-articular lesion, which more often appears in the knee [1]. Other sites such as the shoulder, the elbow, the wrist, the hip, and the ankle may also be affected. Bilateral involvement of the knees has also been described [2].

We report a case of a 57 year old male who presented with pain and swelling of knee, who was diagnosed with lipoma arborescens and underwent synovectomy and got relieved of symptoms.

Case

57 year old male with complaints of pain in knee since 6 months referred to orthopedic opd. No history of trauma/ any other joint pain no constitutional symptoms.

On clinical evaluation there was swelling of knee more over supra patellar region with mild medial joint line tenderness. The

knee had full range of motion and showed no signs of meniscal lesions, nor anteroposterior and collateral instability.

All laboratory studies were normal, including inflammatory markers.

Plain radiographs depicted an area of dense soft tissue in the suprapatellar pouch. The femur and tibia were normal, with normal joint space.

MRI (**Figure 1**) evaluation showed moderate to large joint effusion with synovial hypertrophy containing frond like tissue with interspersed fat signal favouring lipoma arborescens.

He underwent arthroscopic (**Figure 2**) synovial biopsy with synovectomy.

. Biopsy (**Figure 3**) showed Section studied show broad papillary projections lined by synovial membrane. The stroma consists of lobules of mature adipose tissue with focal chronic inflammatory infiltrates and few congested blood vessels.



The patient regained a full range of knee motion from the first postoperative day. He returned to his normal activities in 2 months of time.

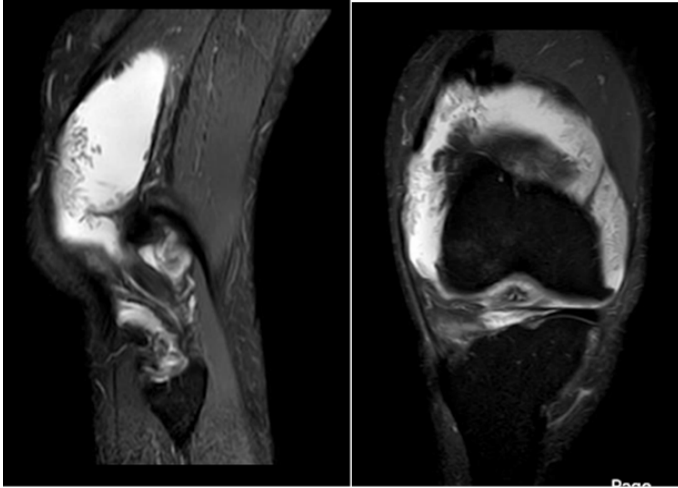


Figure 1: MRI Images showing synovial hypertrophy with frond like tissue.

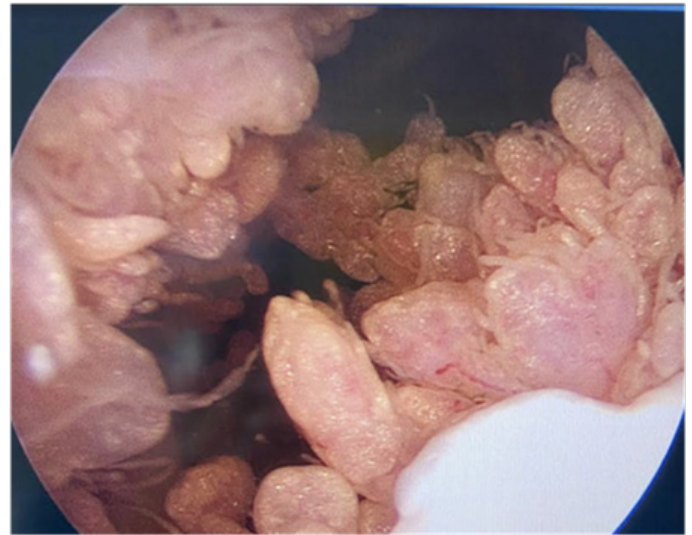


Figure 2: Arthroscopic images.

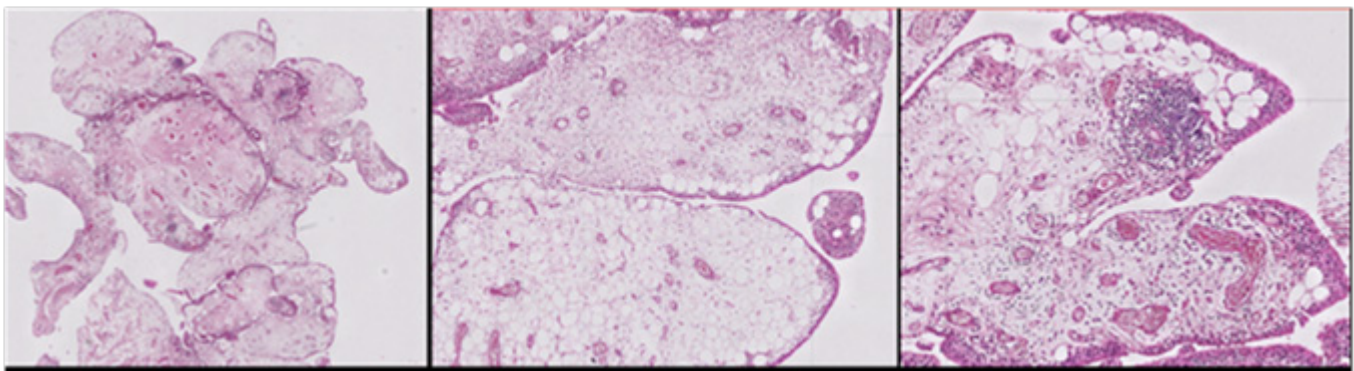


Figure 3: Biopsy images.

Discussion

Lipoma Arborescens is an unusual, intra-articular, benign lesion of synovium. The first detailed case report was by Arzimanoglu in 1957 [3]. Since then, less than 100 have been reported according to Kamaci et al. [4]. Most reports consist of just one case or a small series of this unusual lipoma, while Howe and Wenger described the largest series with 45 lesions in 39 patients [5].

Blood tests are normal and plain radiographs may show soft tissue density in the suprapatellar pouch when the knee is involved. MRI is the diagnostic imaging modality of choice and can demonstrate variable morphological patterns with pathognomonic characteristics [1]. A large frond-like mass arising from the synovium is seen, with signal intensity similar to fat on all pulse sequences. Alternatively, multiple villous proliferation of the synovium and fatty-appearing globules can be seen, while a mixed pattern can also appear.

Treatment is Synovectomy either open or arthroscopic, recurrences are rare. A causal relationship between lipoma arborescens and degenerative joint disease is suspected but has yet to be confirmed. It has been suggested that the lesion can be divided into a primary and a secondary type. The primary type is rare and has been described as a form of synovial lipomatosis with hypertrophy as the cardinal feature; it is rarely considered a cause of degenerative knee joint changes. The secondary type has been defined as lipomatosis resulting from chronic irrita-

tion of the synovium (as seen with degenerative joint disease or arthritis) rather than a true neoplasm and is by far the most common form of lipoma arborescens. When synovectomy is delayed more than a year from symptoms onset, early osteoarthritis may develop [6].

In conclusion, Lipoma Arborescens is a relatively uncommon benign lesion, which typically affects knee joint, especially the suprapatellar pouch. It should always be considered in the spectrum of differential diagnosis when clinicians deal with chronic swelling, either painful or painless, of a joint. MRI findings are characteristic and early synovectomy offers the best functional outcome.

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