



Arthroscopic Treatment Of Pigmented Villonodular Synovitis Of The Knee – Case Report

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INTRODUCTION

Pigmented villonodular synovitis (PVNS) is a rare proliferative condition of the synovium. The estimated incidence ranges around 1.8 per million. The etiology is still unknown. It's usually monoarticular, affecting large joints and the knee is the most affected site. It generally affects patients in the third and fourth decade of life. Its clinical course is a slow and insidious onset of pain, swelling, and stiffness in the involved joint.

The disease presents in two forms, localized or diffuse. Diffuse form is more common, with a high recurrence rate. Despite being a benign condition, PVNS is often aggressive. If left untreated, it can progress to severe degenerative changes and osteoarthritis.

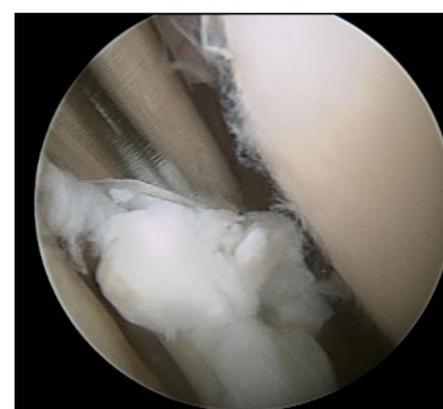
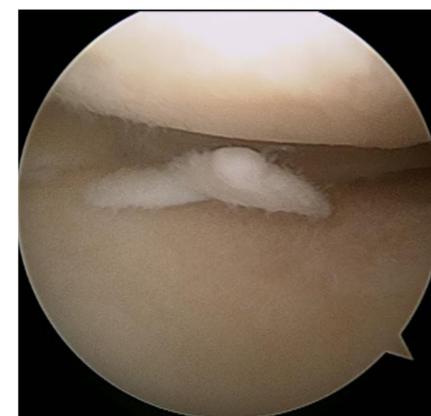
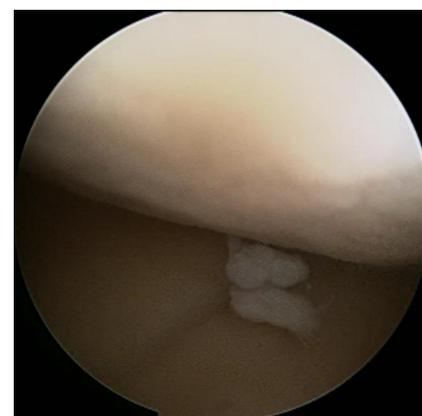
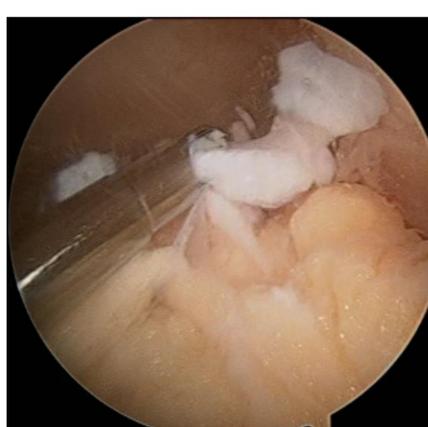
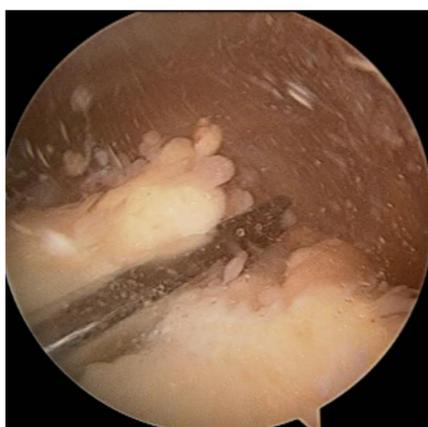
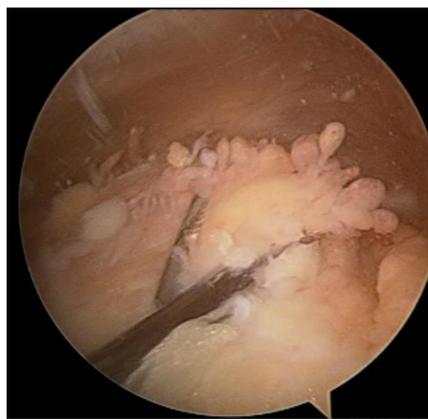
OBJECTIVES

Because of the rarity of cases, the treatment of PVNS is under discussion to this day. However, synovectomy appears to be the treatment modality with the best results.

This case of PVNS is reported for its rarity of incidence and a good result obtained with minimal open intervention.

METHODS

A 63-year-old male presented with chronic knee pain and recurrent swelling of left knee (6-month duration). Plain radiographs were normal. MRI of knee joint showed effusion and a hyperplastic synovium, findings suggestive of PVNS. Widespread affection of synovium noted. Femoral and tibial articular surfaces were normal. Arthroscopic synovectomy was done using 2 anterior portals. We tried to ensure maximum removal of affected synovium. The synovial tissue was sent for histopathological with findings consistent with diagnosis of PVNS.



RESULTS

The patient returned to his job after 2 months. No recurrence was seen at the end of one year. The radiographs taken at 1 year showed no signs of degenerative changes.

CONCLUSIONS

PVNS is rarely encountered and difficult to diagnose. MRI has become the imaging modality of choice. In some cases, the diagnosis is proven only after arthroscopy and biopsy. Final confirmation of PVNS is done with histopathological examination of synovial tissue removed.

Open surgery is a classical and effective method for treatment. Arthroscopic synovectomy, however, has gained popularity, and has several advantages over the open technique particularly in exclusively articular cases.

The goal of treatment is to remove all synovial tissue in order to relieve pain, decrease the risk of joint destruction, and prevent local recurrence. Arthroscopic synovectomy is preferable if feasible and only if it is not possible to completely resect the synovial lesion arthroscopically should an open approach be used.

In the diffused form, the commonly suggested treatment is partial or extensive synovectomy. The main problem appears to be the high rate of recurrence.

Regarding local recurrence, there was no difference in the literature between open or arthroscopic total synovectomy. However, a lower rate of complications was reported after arthroscopic synovectomy.