

Frequently Missed Knee Disaster-Right Knee Localised Posterior Compartment Pigmented Villonodular Synovitis

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Introduction:

Pigmented villonodular synovitis (PVNS) is a rare benign proliferative lesion of unknown origin, typically monoarticular especially affecting the knee during the 3^d and 4th decades of life. Here, we report a case of right knee posterior compartment localised PVNS in a female adult.

Case Presentation:

A 29 year old woman presented with recurrent non traumatic right knee swelling, redness and pain, 3 days prior to admission. Further history revealed she had two episodes of hospitalization for the past four years, due to similar clinical presentation. And, she claimed that her symptoms spontaneously resolved on its own and no definite diagnosis has been established. On examination, her right knee is grossly swollen, warm, and tender on palpation over posterior lateral side of right knee joint. No mass palpable. She was unable to bear weight due to severe knee pain.

Investigations:

Right knee X-Ray are normal. MRI knee noted intra-articular lobulated solid lesion adjacent to posterior lateral femoral condyle.

Discussion:

PVNS is benign proliferative lesion of unknown origin and can be classified into 3 forms- localised, diffuse and mixed. It is a rare disorder, with estimated annual incidence of 1.8 cases per million population, only 25% being localised variety. Localised PVNS common location in the knee is meniscocapsular junction. Other sites reported are intercondylar notch, tibial eminence, and peripatellar area. Rarely, LPVNS found over posterior compartment of the knee or at patellar fat pad.

Clinical diagnosis is difficult, because symptoms are non specific: diffuse pain, swelling, palpable mass, and motion limitation. Standard radiographic findings are rare, thus PVNS usually diagnosed late. In case of PVNS, MRI is an effective mean for detection, definition of size, position, and extension.

There is a consensus in literature marginal resection result in satisfactory outcome, and arthroscopy is a valuable diagnostic and treatment method for LPVNS. Studies report LPVNS has lower recurrence rate (<5%) when compared to diffuse PVNS (25%-50%). Numerous papers report complete cure with complete resection of LPVNS, except for Panagiotopoulos et al., who presented a case with local recurrence 17 years after excision.¹⁰

Conclusion:

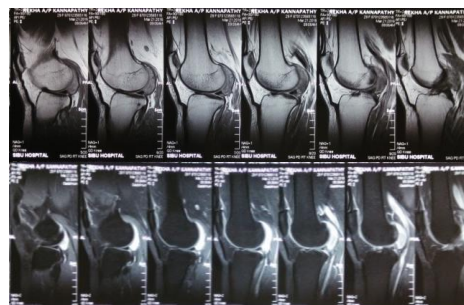
LPVNS is a rare disease, difficult to diagnose, and upon clinical suspicion, MRI is the diagnostic tool of choice. Ultimate diagnosis should be confirmed by histopathological study. For posterior compartment LPVNS, open resection might be considered if failed complete arthroscopic marginal resection.

Reference:

1. Beguin J, Locker B, Vielpeau C, Souquieres G. Pigmented villonodular synovitis of the knee: Result from 13 cases. *Arthroscopy* 1989; 5:62-64



Figure 1 Arthroscopic Finding of Brownish Pink Nodular Mass Over Right Knee Posterior Compartment



Sagittal View of MRI

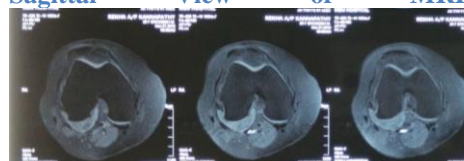


Figure 3 Axial View of MRI Image

Figure 2 Image