

Clinical Image

Posterior Recurrence of Pigmented Villonodular Synovitis of the Knee – Value of Radiosynoviorthesis

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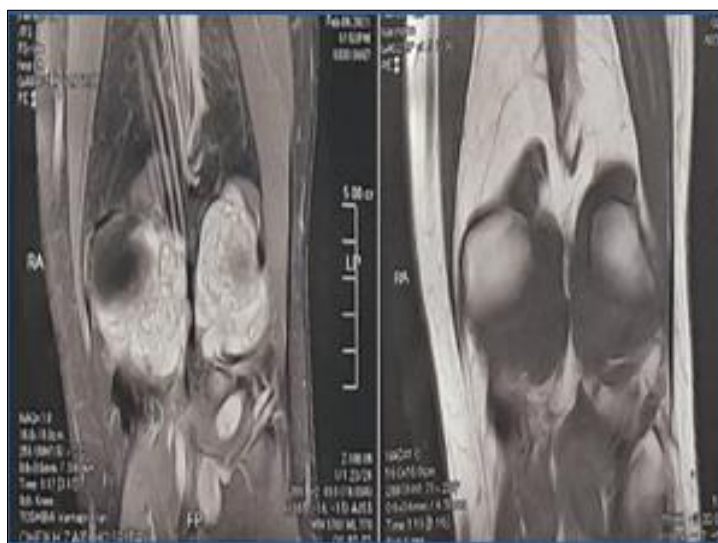
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This is a 35-year-old patient with a history of anterolateral pigmented villonodular synovitis (PVNS) of the knee operated on 10 years ago. Currently, he has limited flexion to 90° and popliteal swelling. MRI shows a multiloculated synovial proliferation, faintly enhanced after gadolinium, located posteriorly and above the cruciate tent, as well as anterolaterally. Geodes of the tibial plateaus and early tri-compartmental gonarthrosis are also noted.

Medical management (posterior surgery difficult)

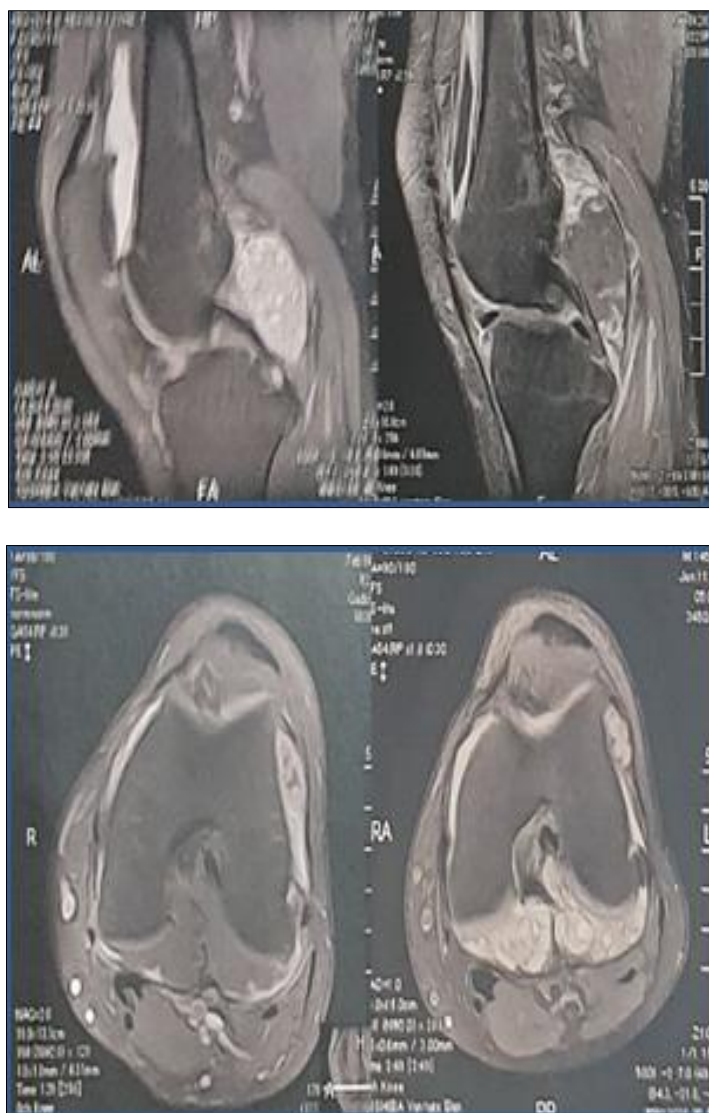
Given the surgical history and the deep topography with risk of neurovascular injury, a posterior surgical approach is challenging. A medical alternative is proposed: radiosynoviorthesis (intra-articular injection of yttrium-90 or rhenium-186). This radioactive synovectomy destroys the pathological synovium without a surgical approach. It is indicated in recurrent diffuse forms, particularly in inaccessible posterior areas. A short 48-hour immobilisation precedes progressive flexion rehabilitation. Improvement in flexion and swelling is achieved within 3 to 6 months. A follow-up MRI is scheduled at 1 year.

In case of failure, radiofrequency or external radiotherapy could be discussed, but radiosynoviorthesis remains the first-line medical treatment for this posterior recurrence.



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The MRI appearance is typical of a recurrence of diffuse posterior spondylolisthesis. The weak enhancement contrasts with the usual hypervascularization of active forms, suggesting a fibrotic component or less inflammation. The retroverted, popliteal, and intercondylar location explains the discomfort in extreme flexion. The geodes indicate bone erosion by proliferative synovium, and the early osteoarthritis is a late consequence of chondral lesions.