Ankle Pigmented Villonodular Synovitis: Excision and Radiosynovectomy

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INTRODUCTION

Pigmented villonodular synovitis (PVNS) is a rare, benign but locally aggressive and recurrent disease. The gold standard in the treatment of PVNS is surgical excision with total synovectomy.

CASE

A 64-year-old lady presented with slowly progressive and painless swelling of the right ankle. There was no discharge, fever, history of trauma or other constitutional symptoms and not affecting her daily activities. Examination revealed a normal gait with circumferential swelling of the ankle. It was lobular, soft, smooth surface, non-fluctuating and painless. The neurovascular was intact with full range of motion of ankle. Total white count, C-reactive protein and erythrocyte sedimentation rate were normal. Radiograph showed an increase in soft tissue shadow around the ankle without bony erosion or sclerosis. MRI of the ankle showing diffuse irregular synovial thickening occupying the anterior, posterior and medial ankle which isointense on T1 and heterogenous intensity on T2.

Following open biopsy result which showed features suggestive of PVNS, patient had underwent excision biopsy of right ankle through posteromedial and anterolateral aspect right ankle to achieve complete excision of the PVNS. There was thickened synovium occupying anterior, posterior and medial aspect ankle. Histopathology examination (HPE) showed fibrocollagenous tissue exhibit synovial lining hyperplasia showing papillary, villous and nodular architecture with scattered hemosiderin-laden macrophages. At 6 weeks post operation, she was subjected to adjuvant therapy with radionuclide intraarticular injection of rhenium. Patient ambulating well during follow up and no recurrence of swelling.

CONCLUSION

Radiosynovectomy (RSV) is the administration of radioactive material into the joint used as adjuvant therapy after surgery to remove residual tissue and prevent recurrence. The combination of surgical synovectomy and RSV is highly effective in treating the symptoms of PVNS.

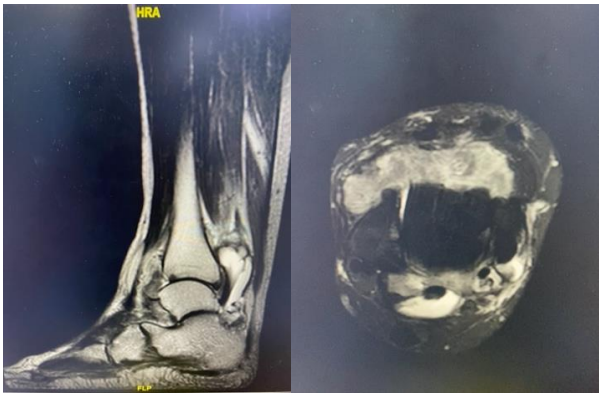

Figure 1: MRI right ankle showing heterogenous intensity synovial thickening

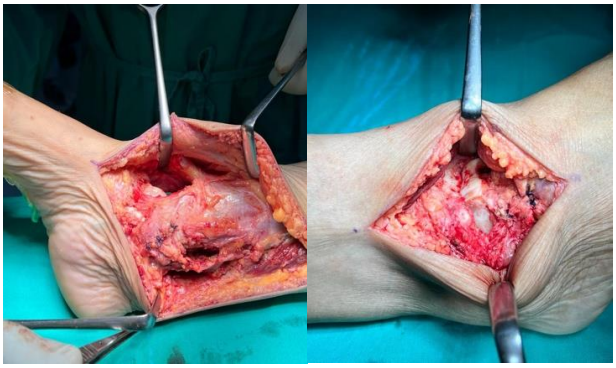

Figure 2: Posteromedial and anterolateral approach to achieve complete excision

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