

Limb Salvaging Wide Resection and Reconstruction for Synovial Sarcoma of The Elbow: A Case Report

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INTRODUCTION:

Synovial sarcoma is a common aggressive soft tissue malignancy among young adults. Despite its name, they are rarely intraarticular and does not arise from synovial tissue but from mesenchymal cells. We aim to highlight the importance of prompt diagnosis and initiation of treatment.

REPORT:

A 23-year-old Burmese gentleman presented with progressively enlarging right elbow swelling for 9 months, associated with pain and stiffness. He was otherwise well with no constitutional symptoms. On examination, there was a hard, non-mobile mass at the anterolateral aspect of his right proximal forearm measuring 7x7cm. Range of motion of the elbow was limited with extension-flexion of 45-90-degrees.



Figure 1: Right elbow swelling at presentation

Magnetic resonance imaging (MRI) in T2-weighted sequence showed a large heterogenous multilobulated mass extending from distal arm to proximal forearm encasing the radial head, with evidence of bone erosion and intercompartmental extensions, sparing median nerve and brachial vessels.

Extraarticular wide resection of right elbow mass, distal humerus, proximal radius/ulna bones were done. Posterior interosseus nerve (PIN) was sacrificed as it was encased within the tumor. Reconstruction was done using fibula

strut autograft and right elbow fusion was completed in 90-degrees flexion using two 3.5mm reconstruction plates.

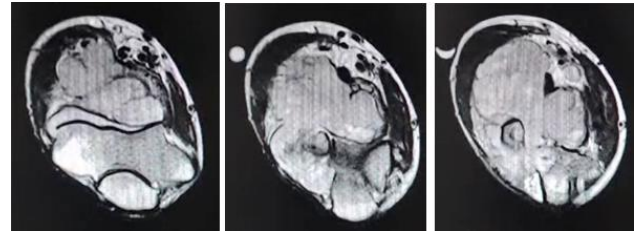


Figure 2: MRI in axial view at levels of supracondylar humerus, elbow, proximal radius/ulna (left to right)

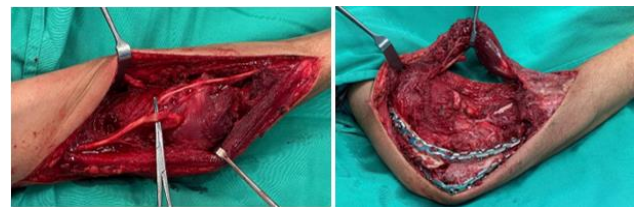


Figure 3: Intraoperatively PIN was encased within the tumor (left). Wide resection, reconstruction and arthrodesis was done (right).

Post-operatively, he experienced wrist and finger drop, reduced sensation over the radial nerve distribution but distal circulation was good. Wound healed well after 3 weeks. Histopathological examination reported features of synovial sarcoma (FNCLCC grade 2). Resection margins were clear. He currently undergoes adjuvant radiotherapy.

CONCLUSION:

Management of synovial sarcoma should be guided by proper staging and grading to ensure optimal treatment planning and outcomes. Surgical resection with negative margins and peri-operative radiotherapy remains the mainstay of treatment.

REFERENCES:

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