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A Rare Case of Giant Cell Tumour Arising From Muscle

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Abstract
Giant cell tumour of soft tissue is a rare primary soft tissue tumour with low malignant potential and great tendency to recur. It frequently arises in the lower limbs especially over thigh, trunk and upper limb. It resembles giant cell tumour of bone clinically and pathologically. Here by, we report one such case which was treated by excision and has recurrence after 4 months.
Key words: *Giant cell tumour, Soft tissue, Malignancy, Recurrence.*

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I. Introduction

Giant cell tumour of soft tissue is a rare neoplasm that resembles its counter part in the bone.The lesion was first described in 1972 by Salm and Sissons[1] and later by Guccion and Enzinger. GCT of soft tissue most frequently arises in lower limbs especially over thigh, followed by trunk and upper limb. It is rare in the head and neck[4], breast, abdomen and extremely rare in the mediastinum.

II. Case Report

A 65year old male presented with h/o gradually progressive swelling over right forearm since 6months. Patient has undergone surgery for fracture right forearm 20years back.

On examination, 6x5cm oval swelling present over lateral aspect of right forearm just distal to the right elbow. Skin over the swelling is smooth, shiny and stretched with a previous surgical scar present lateral to it.Swelling is non tender , firm in consistency, with mobility only in horizontal direction.

Xray of forearmshows no relation to the bone but with underlying cortical thickening .

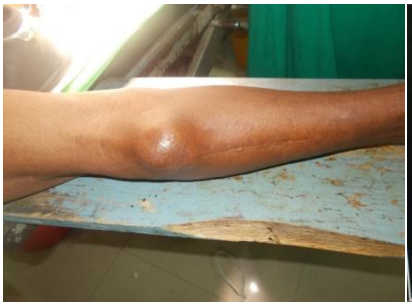
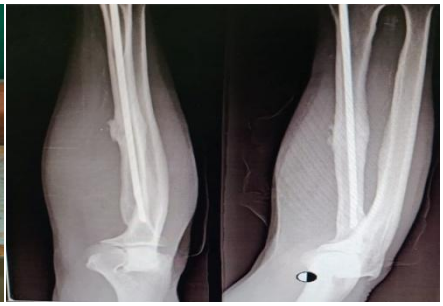
FNAC of the lesionShows clusters of spindle shaped cells along with good number of osteoclast type of giantcells, moderate anisonucleosis and prominent nucleoli with few pigment laden macrophages and histiocytes - features suggestive of malignant transformation / malignant mesenchymal tumour.

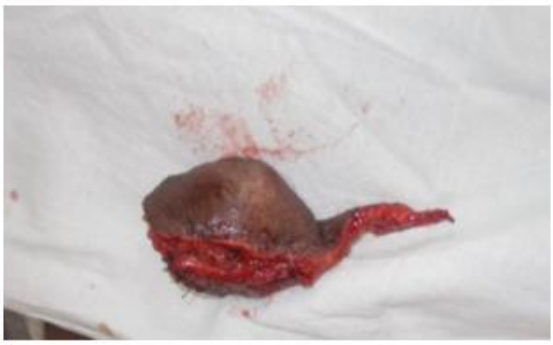
Chest radiograph shows no evidence of metastasis

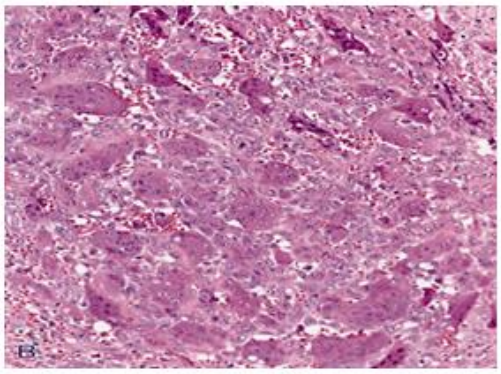
Complete surgical excision of the tumour was done along with the overlying skin.Intraoperatively tumour was present over the brachioradialis muscle abutting the skin with no extension to the underlying bone. Patient postoperative period was uneventful and was followed up.

Histopathology of the specimen was reported as giant cell tumour of soft tissue with no evidence of malignancy.

Patient developed recurrence of tumour 4months later with three swellings over the right forearm, for which wide local excision was done after ruling out metastasis. Post op biopsy revealed giant cell tumour of soft tissue with no evidence of malignancy.





III. Discussion

Giant cell tumour of soft tissue affects age group of 5-84 years with no sex predilection[3]Histological features of lesion is similar to the giant cell tumour of bone.

Macroscopically these are well circumscribed, non encapsulated, multinodular lesion which on cut section shows solid grey white areas with dark brown cystic spaces in between.

Microscopically they are composed of round to spindle shaped cells intimately admixed with scattered osteoclast like multinucleated giant cells[2].These giant cells are the result of fusion of circulating monocytes recruited into the lesion.

Although benign, these tumours have an unpredictable recurrence rate ranging from 9-44%.

Malignant GCT of soft tissue is extremely rare, characterised by nuclear atypia, pleomorphism and abundant atypical mitoses[5].Metastasis is rare but if present, commonly to the lungs.

Immunohistochemically , they are positive for CD68, vimentin and tartarate resistant acid phosphatase and also for cytokeratin, smooth muscle actin and S100.The differential diagnosis of GCT-ST includes nodular tenosynovitis, pigmented villonodular synovitis, dermatofibroma, plexiform fibrohistiocytic tumour and malignant giant cell lesion.

Treatment is complete surgical excision with tumour free margin and follow up is necessary in view of recurrence and malignant transformation.

IV. Conclusion

Though GCT-ST is rare tumour, a high index of suspicion is needed for swellings over extremities.Rule out bony lesion and completely excise the tumour with negative margins.These tumours have great tendency to recur and will have low malignant potential[2]. and so needs follow up.

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