

Unusual Presentation of Giant Cell Tumour of Tendon Sheath in Hand: A Case Report

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Abstract: Giant cell tumor of the tendon sheath (GCTTS) is a slowly progressing benign tumor arising from synovial cells of tendon sheaths. Here we are going to present a case of a 20 year old male presenting with giant cell tumor of the middle finger of Left hand. Radiograph shows there was a large soft tissue swelling present over the volar aspect of middle finger of left hand causing cortical erosion. No evidence of soft tissue calcification is seen. Biopsy confirmed the diagnosis of Giant cell tumor of tendon sheath.

Keywords: Giant Cell, Tendon Sheath, Tumor

INTRODUCTION

Giant cell tumor of the tendon sheath (GCTTS) is a firm slowly progressing benign solitary tumor [1] measuring 1 to 3 cm in diameter.

It arises from synovial cells of tendon sheaths in the limb extremities. It is the second common benign tumor of the hand after ganglion, and can recur after excision [1, 2]. They are classified into two types; the common localised type and rare diffuse form [2]. It usually presents in younger age groups (< 40yrs) and presents as painless swelling in one of the limbs and may be associated with some bony deformity due to cortical erosions.

Multiple etiological hypothesis have been suggested including trauma, altered lipid metabolism, infection, vascular and immune disturbances, neoplasia etc. but the most commonly accepted one is that of a reactive or regenerative hyperplasia associated with an inflammatory process [3].

CASE REPORT

A 20 year old male patient presented in surgical OPD with the complaints of a swelling in the middle finger of left hand since two years. The swelling was gradually increasing in size for last one and half year. But for last three months the swelling is rapidly increasing in size with ulceration and bleeding. It was also causing pain functional deformity of left hand.

On local examination, there is a large swelling present on the left hand. The swelling is about 10 cm x

12 cm. The swelling is globular in shape with cutaneous ulceration causing diffuse bleeding. the margins were irregular, the swelling was hard, fixed and tender. Dressing was done.

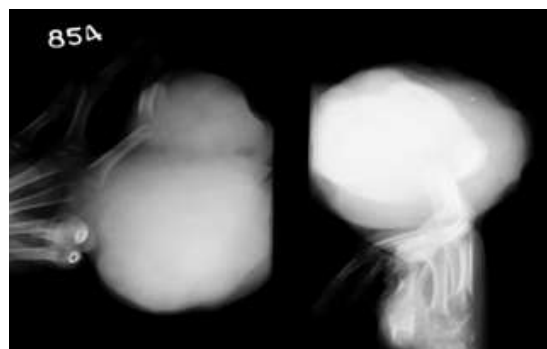


Fig. 1: X-ray left hand suggestive of large soft tissue swelling over volar aspect of middle finger of left hand with cortical erosion

Patient were investigated with routine blood investigations and found to be within normal limits. On X-ray, there was a large soft tissue swelling present over the volar aspect of middle finger of left hand causing cortical erosion (Fig. 1). FNAC was suggestive of Giant cell tumor of tendon sheath.

Patient was operated under Bier's block and tourniquet control and the excision of the growth along with finger from the metacarpophallangial joint (Fig. 2). The entire specimen was then subjected to histopathological examination, and the margins were observed for clearance.



Fig. 2: Excision of growth along with finger

On histopathological examination of the swelling, it was reported giant cell tumor of the tendon sheath. On follow up examination after around 2 months, patient was found asymptomatic with no sign of local recurrence.

DISCUSSION

Giant cell tumor of the tendon sheath is the 2nd most common swelling of the hand arising from the synovial sheath of the tendon [4]. Complete surgical excision remains the mainstay of treatment, assisted either with an operating microscope or a magnifying loupe [5, 6]. Radiotherapy has been suggested after inadequate excision and in patients with high mitotic activity in order to prevent recurrence [7].

There is a recent trend to use FNAC as a primary diagnostic aid and helps in proceeding with care in soft tissue masses [8]. Histologically these tumors are composed of multinucleated giant cells, polyhedral histiocytes, fibrosis and hemosiderin deposits [9, 10].

In this patient, there was a large swelling in the volar aspect of the middle finger of the left hand. The swelling was having pressure effects on the bone causing cortical erosions and functional limitations. Pain and bleeding might have been due to the pressure effects on the skin causing ulceration and erosion of the blood vessels.

The tumor was resected along with the finger with a curative intention but the tumor has a high recurrence rate. In our patient, it didn't recur after 2 months of follow-up.

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