



## TENOSYNOVIAL GIANT CELL TUMOUR ON DORSAL ASPECT OF FINGER: A RARE PRESENTATION

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<p><b>Article Info</b> <i>Received 31/05/2015</i> <i>Revised 10/06/2015</i> <i>Accepted 16/06/2015</i></p> <p><b>Key words:</b> Tenosynovial giant cell tumor, nodular, dorsal aspect.</p>	<p><b>ABSTRACT</b> Tenosynovial giant cell tumour is considered to be a benign hyperplastic lesion occurring due to probably chronic antigenic inflammatory process. Its nodular form has a propensity towards tendon sheaths. However tendon sheath of dorsal aspect as in the presented patient is rare. Hence when a 35 years female presented with a firm slowly enlarging nodule on index finger with no bony involvement. It was excised with a margin of normal tissues as well. Histopathological examination confirmed it to be a tenosynovial giant cell tumour. Patient has shown no recurrence on 2 years follow up.</p>
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### INTRODUCTION

Tenosynovial giant cell tumour is a benign hyperplastic lesion of synovial origin [1,2]. It is considered to be an inflammatory process arising as a consequence of chronic antigenic stimulus: a reactive stimulus arising from the synovial lining of the tendon sheath or a lesion of monocyte/macrophage deviation [3]. However exact pathogenesis is uncertain. Clinically two major forms: a localized nodular and diffuse villous forms are found. The nodular form preferentially affects the tendon sheaths of hand whereas diffuse villous form is a lesion of joints especially the knees. Localized form usually presents typically as a firm, nodular, well defined tumour occurring between ages of 30-50 years with a slightly more female preponderance [1,2]. It is shown to have a recurrence rate of 10-20% [1,3].

### CASE REPORT

A 35 years female patient presented with a firm nodular pea sized swelling on the dorsal aspect of distal phalanx of index finger which had been noticed

since 3 months and had been gradually increasing in size. It was initially painless but later on as swelling enlarged patient had persistent discomfort. It was free from underlying bone. However range of movement of distal interphalangeal joint was reduced terminally. No other fingers were involved. Patient did not have any lymph node enlargement or constitutional symptoms. Radiological examination did not reveal anything significant.

Hence taking into consideration the above facts, excision of the growth was done under all sterile precautions. Intra operatively a cystic, localized, extra articular swelling originating from extensor tendon sheath was found. Histopathological examination revealed it to be tenosynovial giant cell tumour.

Patient has been followed up for more than 2 years with no recurrence so far.

### DISCUSSION AND CONCLUSION

Tenosynovial giant cell tumour does not have any known etiology. Hence patient may not have any



typical antecedent history. Such swellings could be ganglion in the tendon sheath, a tubercular lesion, herbedon nodule of Rheumatoid arthritis, xanthoma, xanthogranuloma, myeloplaxoma, etc. [4] As radiology has nothing to contribute, the only means to diagnose was excision of the tumour with a part of the surrounding sheath as done in this case.

Histopathological examination stamps the diagnosis as in this case it was found to have gross appearance of brownish yellow soft tissue mass. On histological examination closely packed medium sized polyhedral cells with prominent nucleoli with many osteoclastic giant tumour cells are seen. Stroma shows infiltrate of fibroblasts, histiocytes, lymphocytes in dense fibrous tissue with no atypia of stromal cells. Zone of hyalinization seen.

Jaffe *et al* has commented for the preferential location of tumour for flexor sheath [4]. However as seen in this case though rare extensor tendon sheaths of hand can also be affected. Even amongst fingers, index finger is shown to have highest incidence [5]. Tenosynovial giant cell tumour as such does not have bony involvement but can cause cortical erosion due to mechanical pressure of the swelling.

Even literature advocates its complete excision with a slight margin of normal tissue as it has 10-20% chance of recurrence [1,3]. Hence radiotherapy also has been advocated as an adjunct to prevent recurrence in case wherein complete excision is not possible [5]. In our case complete excision was done and hence the patient has not shown recurrence even on more than 2 years follow up.

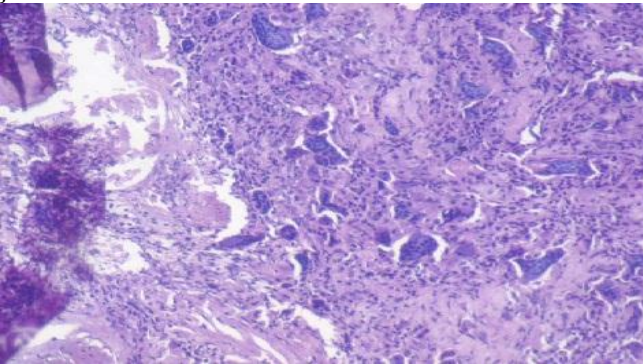
**Fig 1. Clinical presentation of swelling over left index finger on dorsal aspect**



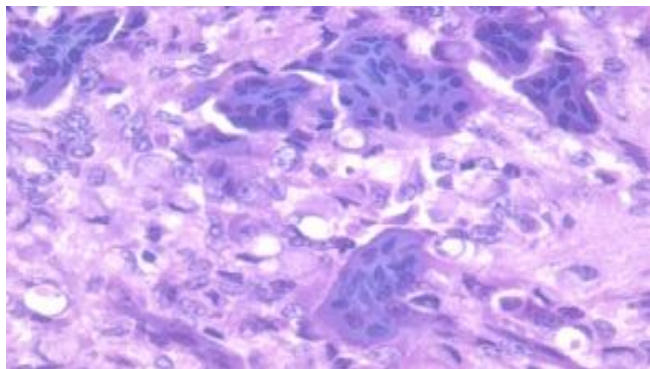
**Fig 2. Surgical exposure**



**Fig 3. Histopathological picture of excised mass shows groups of small cells intermingled with multinucleated giant cells. H&E- 4X**



**Fig 4. Histopathological picture shows multinucleated giant cells with abundant cytoplasm. H&E - 40X**



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