Giant cell tumour of tendon sheath of the extensor compartment of the hand: A case report

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Abstract
A 60 year old female presented with painless nodule over right hand index finger. On the basis of clinical and histopathological finding she is diagnosed with giant cell tumour of tendon sheath.

Keywords: Giant cell tumour, Tendon sheath

Introduction

Giant cell tumour of tendon sheath (GCTTS) also known as "SYNOVIOMA", is considered benign tumor, but is well known for its high rate of recurrence. The rates of GCTTS arising from phalanx is extremely rare and the overall bony involvement of GCTTS is uncommon and closely related to local recurrence after surgery. Radiological bone involvement are pressure erosion, circumscribed cortical destruction and degenerative arthritis. The treatment involves complete resection of tumour including bone lesion.

Case report
A 60 year female came to the out patient department of our institution with complaint of swelling over index finger of right hand which was peanut size initially and increasing gradually in size without any accompanying symptoms like pain. On examination, the swelling measured 25x15 mm in diameter and was firm in consistency, non-tender and selectively mobile. There were no accompanying signs of infection or inflammation. Radiology of right hand was done and x ray was suggestive of soft tissue opacity over middle phalanx region. MRI suggestive of an altered signal intensity lesion over the dorsal aspect of middle finger extending from proximal interphalangeal joint to distal interphalangeal joint which appeared hypointense on T1 weighted. The clinical differential diagnosis includes ganglion cyst, foreign body granuloma, epidermoid cyst, lipoma and knuckle pad necrobiotic granuloma to name a few.

Discussion
Giant cell tumour of tendon sheath is also known "SYNOVIUM". GCTTS is second most common tumour of hand, but etiology is unknown. Many theories for pathogenesis have been proposed but reactive or regenerative hyperplasia associated with an inflammatory process has been widely accepted.
Cytogenetic data indicate that 1p11-13 is the region most frequently involved in structural rearrangement. Giant cell tumour of tendon sheath are associated with degenerative changes of bone especially in distal interphalangeal joint. Giant cell tumour of the tendon sheath is classified into two types: the common localised type and rare diffuse type. The rare diffuse type is considered to be the soft tissue counterpart of diffuse villonodular synovitis (PVNS) and typically affect lower limbs. PVNS is also differetted from GCTTS which is located within tendon while previous one located intraarticular.

Giant cell tumour of tendon sheath is usually painless mass. The duration may range from a few week to as long as thirty years. Occasional symptoms can be distal numbness and mild disability that may result from the impaired function of digit secondary to the size of the lesion. Tumour is firm, lobulated, non-tender, slow growing mass with overlying skin freely mobile. Lesion is non trans illuminating. On gross pathology these are well circumscribed, multinodular masses shallow grooves along their deep surfaces created by the underlying tendon. Tumour size ranges from 0.5-5 cm. Colour varying from grayish to yellow orange depending of the amount of heamosiderin, collagen and histocytes in the sample.

**Conclusion**

In conclusion after complete excision of tumour there is no recurrence occur in our case. Hence surgery seem to main factor influencing factor for recurrence as many study suggest that after marginal excision of the Tumour there is recurrence found in most of cases.

**References**