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# **CASE REPORT**

## GIANT CELL TUMOUR TENDON SHEATH THUMB

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#### **ABSTRACT:**

Giant cell tumour of tendon sheath (GCTTS) is a relatively rare soft tissue tumor. An overall incidence is 1 in 50,000 individuals. Usually affects people between 30 to 50 years. It is more often seen in women. The common tumor location is a hand especially the fingers - the index finger (29.7%) followed by thumb (12.9%), the long (24.6%), the ring (16.8%) and then with little (16%) fingers. GCTTS is an extra-articular, localized mostly painless soft tissue mass. Patients usually present with painless swelling for several years.

KEYWORDS: Giant cell tumor, Tendon sheath, Thumb.

#### **INTRODUCTION**

Giant cell tumor of tendon sheath (GCTTS) is a benign slow growing tumor with a high incidence of recurrence. Giant cell tumor of tendon sheath of thumb is a rare entity though it is well known. Only few cases are reported in the literature. An overall incidence is 1 in 50,000 individuals. Usually affects people between 30 to 50 years. It is more often seen in women. The common tumor location is a hand especially the fingers - the index finger (29.7%) followed by thumb (12.9%), the long (24.6%), the ring (16.8%) and then with little (16%) fingers. GCTTS is extra-articular and localized. Patients usually present with painless swelling of several years.

#### **CASE REPORT:**

An 18 year old female presented with a painless swelling over the proximal half of right thumb since 6 months. No history of trauma. Examination revealed a single, firm, lobulated, non-tender, non-trans illuminating mass, mobile only in the horizontal plane over the proximal half of the right thumb; skin over the swelling is pinchable.

Tumour was excised. Histopathological examination: partially capsulated lesion with larger polygonal cells with vacuolated granular cytoplasm and vesicular nucleus, along with areas showing osteoclastic type of tumor giant cells & many clusters of cholesterol cleft spaces; diagnosis of giant cell tumor of tendon sheath was made.

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Giant cell cholester al spaces

## **DISCUSSION:**

Fig-1 Swelling thumb Rt

Giant cell tumor of tendon sheath is a slow growing benign lesion. It is also called as fibrous histiocytoma of tendon sheath, Xanthogranuloma, and benign synovium<sup>3, 4, 5, 6.</sup> GCTTS may occur at any age group but most typically occurs between 30 and 50, with a female preponderance<sup>2</sup>. Prakash et al reported a distribution of lesion as follows : index finger(16),ringfinger(12),middlefinger(10),thumb(04),littlefinger(04),palm(02), in their study of 48 patients<sup>1</sup>. Tumors are well circumscribed and typically lobulated<sup>7</sup>, and white to gray in color, with yellowish and brown areas. Treatment consists of complete wide local excision and postoperative radiotherapy. Surgical treatment is the standard treatment of GCTTS. Post-operative radiotherapy is indicated to prevent recurrence<sup>8,9</sup>. Microscopic picture of this lesion shows closely packed medium sized polyhedral cells with a variable admixture of giant cells containing fat and hemosiderin.

## **CONCLUSION:**

Giant cell tumor of tendon sheath is not an uncommon tumor in the hand but involvement of thumb is rare.

### **REFERENCES:**

- 1. Prakash P Kotwal, Vika Gupta, Rajesh Malhotra. Giant cell tumor tendon sheath is radiotherapy indicated to prevent recurrence after surgery .The journal of bone and joint surgery.2000;82(4):571-573.
- 2. Monaghan H, Salter DM, Al-Nafussi. A Giant Cell tumor of tendon sheath (localized nodular tenosynovitis) clinicopathological features of 71 cases. J Clin Pathol.2001; 54:404-407.
- 3. Wang Y, Tang J, Luo Y. The Value of Sonography in Diagnosing Giant Cell Tumors of Tendon Sheath. J Ultrasound Med. 2007: 26:1333-1340.
- 4. Weiss SW, Goldblum JR. Benign Tumors and Tumor like lesions of Synovial Tissues. 4rth ed. St Louis, MO: CV Mosby Co; 2001. P1037-1062.

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- 5. Fletcher CD, Krishnan K, Unni KK, Mertens F. World Health Organization Classification of Tumors, Pathology, and Genetics of tumors of Soft Tissue and Bone .Lyon, France: IARC Press;2002. P112-114.
- 6. DiGrazia S, Succi G, Fragetta F, Perotta RE. Giant cell tumor of tendon sheath: study of 64 cases and review of literature. G Chir. 2013;34(5-6): 149-52.
- 7. Sun C, Sheng W, Yu H, Han J. Giant cell tumor of the tendon sheath: A rare case in the left knee of a 15 year old boy. Oncol Lett. 2012;3 (3): 718 720.
- 8. Garg B, Kotwal PP. Giant cell tumor of tendon sheath of hand. J orthopsurg(Hong Kong). 2011; 19(2):218-20.
- 9. Kotwall PP, Gupta V, Malhotra R, Giant-cell tumor of Tendon sheath J Bone Joint Surg Br. 2000; 571-3.