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Fibroma Of Extensor Digitorum Tendon Sheath In 27yr Old Male Patient: A Case Report

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Abstract
Fibroma of tendon sheath was first described by Geschickter and Copeland in 1949 (1), but was not formally documented as a clinicopathologic entity until Chung and Enzinger's superb series of 138 cases was published in 1979 (2). These lesions not infrequently present to the dermatologist as small subcutaneous nodules. This tumor has received little attention in the dermatological literature anti as dermatologists play an increasingly important role in the surgical management of cutaneous and subcutaneous tumors the entity deserves wider recognition. The importance of suggesting the diagnosis clinically is that although most are histologically bland ant obviously benign, more cellular lesions may he misinterpreted as malignant. The differential diagnosis is briefly discussed.

Keywords: *Fibroma, tendon sheath, subcutaneous nodules, swelling over dorsum of left foot*

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I. Introduction

26 yrs male patient presented to our hospital with complaints of swelling over dorsum of left foot since 1yr insidous onset gradually progressive from peanut size to lemon size in 6-months and history of thorn prick present over swelling 3-months ago suddenly swelling increased in size in last 2 months and attained present size. clinicaly, A swelling over dorsum of left foot, single solitary swelling about 12 cm >< 4cm size over dorsum of left foot, surface appears irregular, with irregular borders, no engorged veins, Hard in consistancy, non tender, fixed to deeper structure, with irregular border. Finally diagnosed as fibroma arising from extensor hallucis longus n extensor hallucis brevis of left foot Postoperatively at 12days suture removal was done clinically no weakness of extensor hallucis longus active toe movements present patient reverted back to his work after 20days with no complications n no abnormalities.

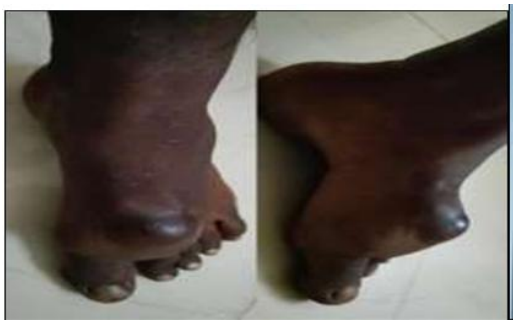

Fig 1 Clinical Picture of Tumor

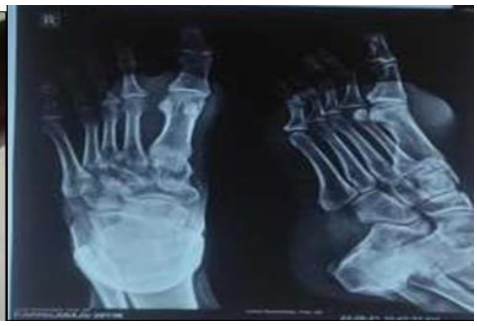

Fig.2 X-Ray of Foot

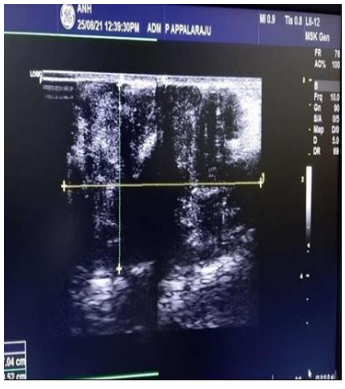

Fig 3. Ultra-Sound of Tumor

Fig 4. C T Scan

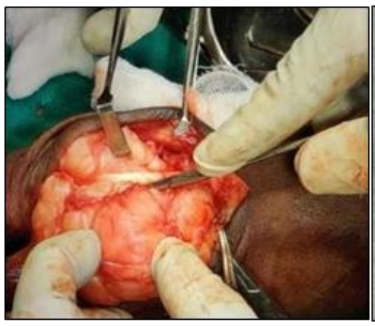
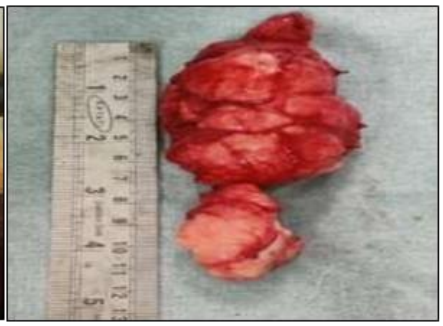

Fig 5. MRI T1 and T2 IMage

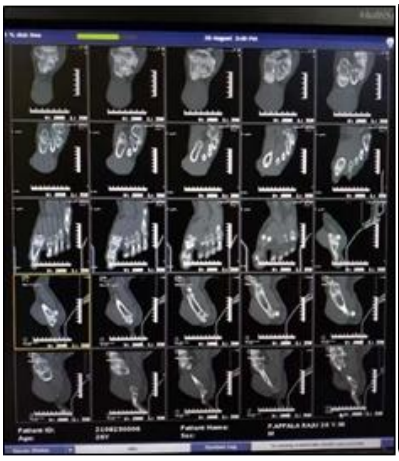
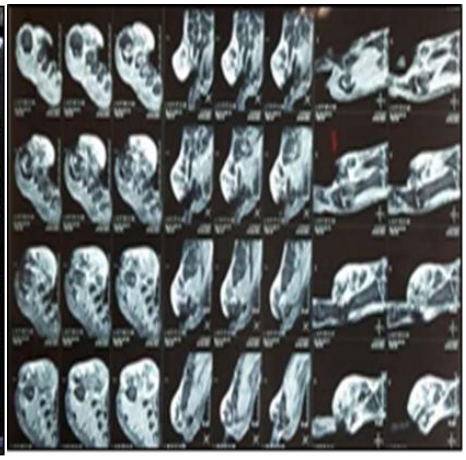

Fig 6.a,b, Operative Excission of Tumor

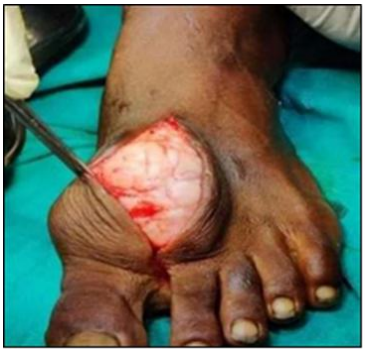
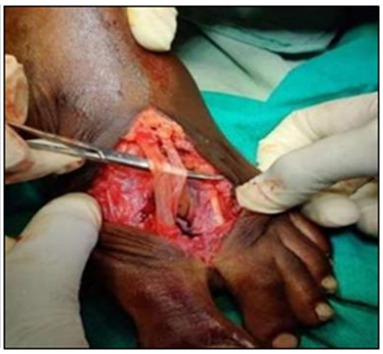

Fig 7 . Extensor Tendon Exposed Fig 8. Excised Tumor Size

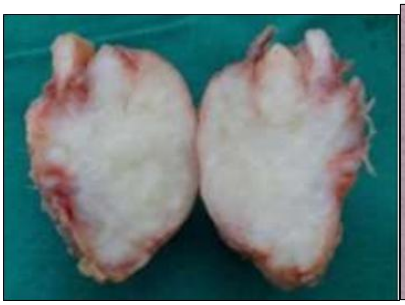
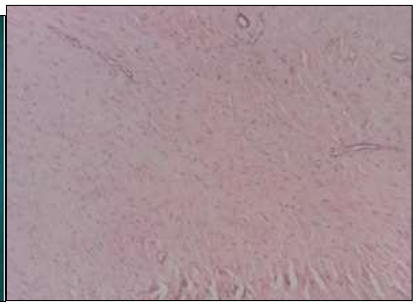

Fig 9. Tumor Cut into two piece Fig 10. Histopathology

Finally diagnosed as fibroma arising from extensor hallucis longus n extensor hallucis brevis of left foot Postoperatively at 12days suture removal was done clinically no weakness of extensor hallucis longus active toe movements present patient reverted back to his work after 20days with no complications n no abnormalities.

II. Discussion

The clinical and histological features of the cases described here are typical and agree largely with the findings of the 4 previously published series [2, 3, 4, 5]. Fibroma of tendon sheath is a distinct entity characterised by a slowly growing, occasionally painful, subcutaneous nodule usually arising from (or near) a tendon sheath, most especially on the hand or foot. It is worth noting that every lesion in the vast series of Chung and Enzinge6 macroscopically arise from a tendon or tendon sheath. There is a striking male preponderance and middle-aged adults are usually affected. The typical histological picture is that of a sharply demarcated mass of hyalinised, fibrous tissue with variable cellularity and prominent slit-like vascular channels. None of our cases showed the zonal arrangement as tumor with central hyalinisation; nor did any show either cartilaginous metaplasia or calcification, as was occasionally seen by Hashimoto et al. [5]. Given the typical clinical and histological findings, diagnosis of this lesion should not prove difficult. In our series original diagnoses in eluded hyalinised angioleiomyoma, hyalinised fibrous histiocytoma and unspecified fibroma. It is of interest that one ease with marked cellularity and significant mitotic activity was diagnosed as a low grade spindle cell sarcoma. The differential diagnosis of these lesions includes angioleiomyoma, a lesion more common in females and with pain and tenderness as charactetistic presenting symptoms [6]. Even in those angioleiomyoma which show hyalinisation or myxoid areas there should be little diagnostic difficulty because of their typical cytology features of eosinophilic cytoplasm and plump, blunt-ended nuclei, associated with Periodic acid Schiff positivity and differential staining with Masson's triehrome, with which longitudinal myofibrils should be identified.

Giant cell tumor of tendon sheath, although sharing a common site and gross appearance with fibroma of tendon sheath [7], characteristically contains xanthomatous histiocytes and multinueleate giant cells, which are a rare feature in fibroma of tendon sheath. Hemosiderin deposition should also be prominent and inflammatory cells are invariably present. In addition, no areas in any of the cases in this series showed a transtitional appearance between fibroma of tendon sheath and giant cell tutnour. It would therefore seem unlikely that fibrotna of tendon sheath represents a formefruste of giant cell tumor. Cellular lesions may be confused with dermatofibroma, nodular fasciitis, or even a low grade sarcoma of indeterminate origin but always show other microscopically typical foci. In particular, both nodular fasciitis and dermatofibrosarcoma protuberans have ill-defined or infiltrative margins. Nodular fasciitis is cytologically more polymorphic, contains numerous primitive capillaries and has a much more prominent mixed inflammatory infiltrate [8]. Dermatofibrosarcoma is very uncommon in the hands or feet, is much more cellular and almost invariably shows the classical storiform or cartwheel pattern [9].

The histogenesis of these lesions is uncertain: whether they represent a true neoplasm or are reactive in nature has not been decided, although the former seems more likely. Lundgren and Kindblom [4] in their series showed that ultrastructural the spindle cells showed features of fibroblasts and myofibroblasts, while Hashimoto et al. found a predominance of myofibroblasts [5]. Azzopardi et al. [3] suggested that some fibromas of tendon sheath they represent end-stage angioleiomyomas, however histochemical reactions make this unlikely. Three studies have also shown that the cells lining the slit-like spaces stain positively for factor Vlll- related antigen by the immunoperoxidase technique, thereby confirming their vascular nature [3, 4, 5]. Despite its uncertain histogenesis, fibroma of tendon sheath is a distinct clinicopathologic entity but still one that may cause diagnostic difficulty. Further anxiety may be engendered by the development of local recurrence which, in the only large and statistically significant series [2], ocurred in 25% of cases, sometimes repeatedly.

III. Conclusion

We concluded that we should be aware of the possibility of encountering uncommon fibromas of a tendon-sheath in the foot. It may appear to be a soft tissue tumor. Tumors causing mechanical displacement should be included in the differential diagnosis when patients are seen with foot and toe deformities. Fibromas of a tendon-sheath should be included in the differential diagnosis while examining patients of swelling over dorsum of foot.

References

[1]. Geschickter CF, Copeland NM. Tumours Of Bone. 3rd Ed. Lippineott JB 1949, 693.
[2]. Chung EB, Enzinger FM. Fibroma Of Tendon Sheath. Cancer 197y;44:194.'5.
[3]. Azzopardi JG. Tanda F. Salm R. Tcnosynovial Fibroma. Diagnost Histopathol 1983;6:69.
[4]. Lundgien LG, Kindblom L-G. Fibroma Of Tendon Sheath. Aeta Pathol Microbiol Imtiiunol Scand 1984;A 92:401.
[5]. Hashimoto H. Tsuncyoshi M. Daimaru Y, Ushijinia M, Enjoji M. Fibroma Of Tendon Sheath: A Tumour Of Myofibroblasts. A Elinieopathologie Study Of 18 Cases. Aeta Pathol Jpn 198;35:1099.
[6]. Hachisuga T, Hashimoto H. Munetomo E. Angioleiomyoma: A Elinieopathologie Reappraisal Of 562 Cases. Cancer 1984;54:126.
[7]. Phalcn GS, Mccormack LJ, Gazalc WJ. Giant Cell Tumour Of Tendon Sheath (Benign Synovioma) In The Hand: Evaluation Of 56 Cases. Clin Onhop 1959;15:140.
[8]. Bernstein KE, Lattes R. Nodular (Pseudosarcomatous) Fasciitis, A Non-Recurrent Lesion: Elinieopathologie Study Of 134 Cases. Cancer 1982;49:1668.