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RESEARCH ARTICLE

TENDON SHEATH FIBROMA OF FORE FOOT A RARE CASE REPORT

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Key words:-
FTS (fibroma of tendon sheath), Excision, Biopsy.

Abstract

Background:-The clinical and pathological features of fibroma of tendon sheath are presented. Fibroma of the tendon sheath is an uncommon soft tissue tumor presenting as a solitary, slow-growing, firm, small nodules, which shows strong attachment to the tendon or tendon sheath. The main presenting symptom was an insidiously growing mass causing mild tenderness or pain. It is usually localized on fingers and hand tendons in adults between the age of 20 and 40 years old but localized on foot is a rare entity.

Material & methods:- This case concerns a 40-year-old women presenting with a 3-year history of localized painful swelling on dorsal aspect of right fore foot without history of any trauma, and constitutional symptoms. X ray of right foot was normal. Excision & Biopsy confirmed fibroma of the tendon sheath. Here, we report on a very rare case of fibroma of the tendon sheath arising from Extensor tendon of foot in female, which supports the pathogenetic hypothesis that this tumor may be a reactive process rather than a true neoplasm.

Result:- Patient was on regular followed up to 6 months with no signs of recurrence.

Conclusion:- Fibroma of tendon sheath of foot is a rare occurrence. Excision of mass gave us excellent result.Excisional biopsy confirmed the diagnosis.

Introduction:-

Fibroma of the tendon sheath (FTS) is a rare, benign soft tissue tumor[1]. The tumor usually presents as a single, slow-growing, firm, pain full, localized swelling, which strongly attaches to the tendon sheath and it is often localized on the hand, particularly on the thumb[1,2]. It usually occurs in males between the age of 20 and 40 years old[1,2].Histopathologically, it is characterized by a well-demarcated nodule that consists of haphazardly-arranged, fibroblast-like spindle cells embedded in a dense collagenous matrix[2].

A few cases of FTS have been described in the literature[1-7]. However, FTS arising concurrently on dorsum of foot in female has not yet been reported. Here, we report on the unusual presentation of FTS.

Case Report:-

A 40-year-old woman presented with approximately a three-year history of palpable, firm and localized painful swelling on dorsum of fore foot. She recognized the skin lesion on her right dorsum of fore foot area after she felt discomfort and pain upon walking. The lesions have increased in size over the last three years on dorsum of foot. He

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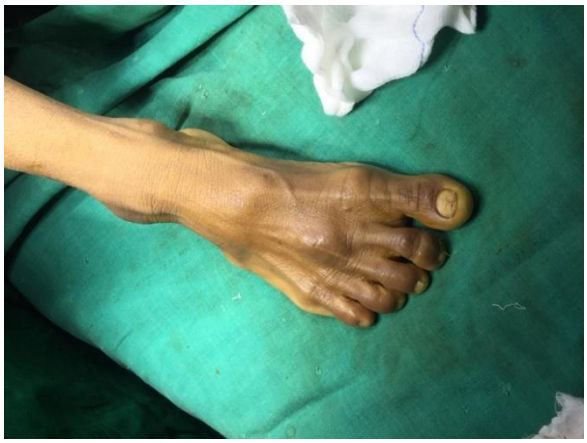
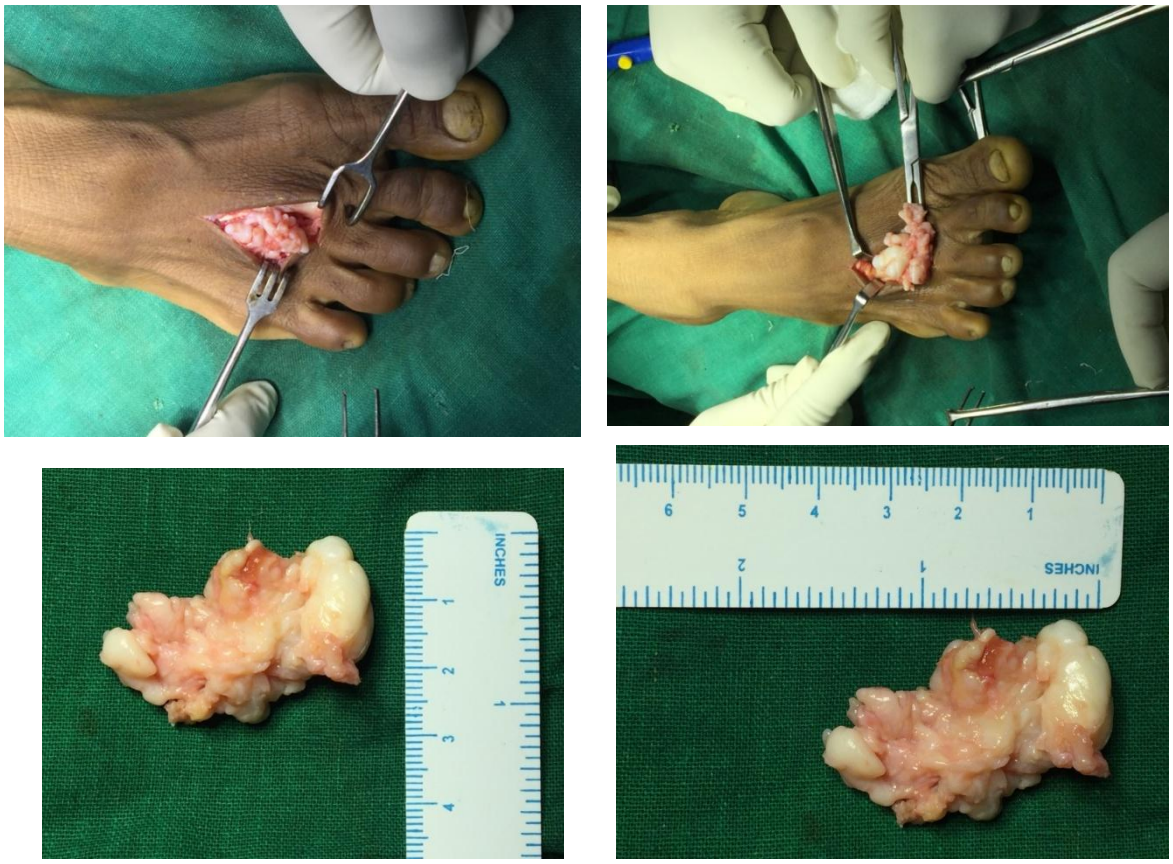
complained from time to time of stiffness and numbness on his feet. There was no recollection of associated trauma. His family history and past medical history were unremarkable.



Pre-op clinical pic No.1:-

As the nodules were deeply located, visible, & palpable. No limitation of foot or toe motion was observed. No joint swelling or other specific skin lesions were found.

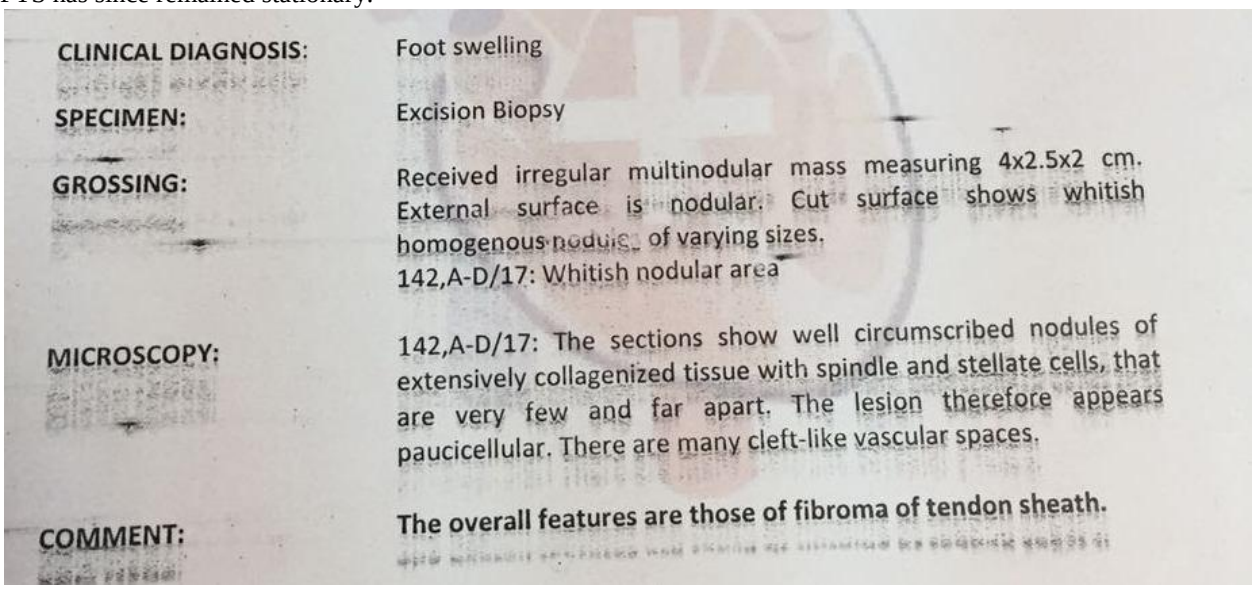


Intra-op clinical pic No.2:-

Laboratory tests, including blood cell count and blood chemistry, were all within normal ranges. Foot X-ray showed no remarkable findings. For histological diagnosis, a 4*2.5*2cm mass was performed from the lesion on the right

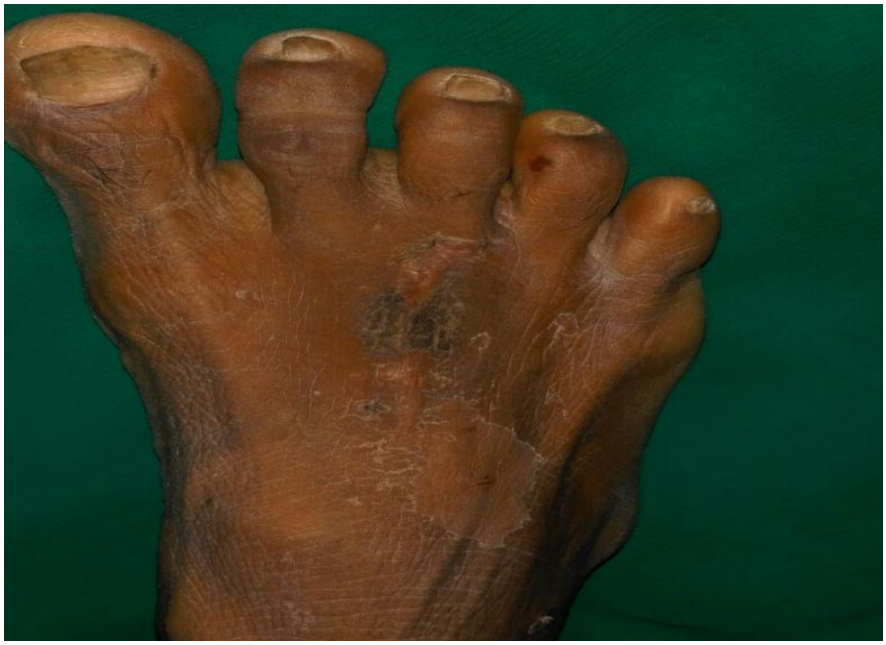
foot. Histopathological findings showed relatively well-circumscribed nodules of extensively collagenized tissue with spindle and stellate cells, that are very few and far apart which appears paucicellular.

Based on these clinical and histological findings, he was diagnosed as FTS. She has been followed up on 12 days of post op for suture removal then 2 months & last followed up on 6 months and her pain and numbness relieve. The FTS has since remained stationary.



CLINICAL DIAGNOSIS:	Foot swelling
SPECIMEN:	Excision Biopsy
GROSSING:	Received irregular multinodular mass measuring 4x2.5x2 cm. External surface is nodular. Cut surface shows whitish homogenous nodule of varying sizes. 142,A-D/17: Whitish nodular area
MICROSCOPY:	142,A-D/17: The sections show well circumscribed nodules of extensively collagenized tissue with spindle and stellate cells, that are very few and far apart. The lesion therefore appears paucicellular. There are many cleft-like vascular spaces.
COMMENT:	The overall features are those of fibroma of tendon sheath.

Histopathology Report pic. No 3:-



Last follow up at 6month:-

Discussion:-

Chung and Enzinger first defined FTS as an entity in 1979[11]. This rare tumor has been reported mainly in the orthopedic field and generally occurred as a solitary nodule on the fingers, feet, elbows, and knees, and, rarely, intra-articular areas[1-7].

The pathogenesis of FTS has not been clearly established with regard to whether the origin is a neoplasm or reactive fibrosing process. Dal Cin et al[10]. reported that the presence of clonal chromosomal abnormality characterized by a

t(2:11)(q31-32:q12) in ten out of 20 karyotyped cells suggested that this proliferation is not a reactive fibrosing process, but a neoplasm. Others have found that the right hand was more frequently affected than the left, and most cases occurred in the palm of hand and in the plantar region of the foot[11]. This finding suggests that the origin of FTS may be a reactive process by trauma, stimulation, or inflammation. This case also favored the reactive pathogenesis in formation of FTS. Skin lesions developed on foot and are consistently affected by prolonged pressure and motion. Her symptoms of morning stiffness and numbness showed moderate improvement with administration of oral anti-inflammatory agents. Since we placed her on oral anti-inflammatory agents, the number and size of FTS have been maintained. From these findings, sustained inflammation and stimulation may play an important role in FTS.

The majority of patients with FTS are between the ages of 20 and 40 years and the male: female ratio has been described as 1.5~3:1[7,11]. Most patients do not complain of any symptoms. However, 31% of cases present with tenderness and mild pain due to compression of nerves underlying FTS[11]. Numbness and morning stiffness were observed in this case also. Although her symptoms were controlled by oral anti-inflammatory agents, the possibility of compression of nerve on foot cannot be excluded. Therefore, even though it is practically difficult to excise out all FTSs, removal of the tumor is necessary, which provokes pain. Surgery for local excision should be performed carefully, because the recurrence rate is 24% and all of the cases are in the hands and finger[7].

Differential diagnosis should be made with an epidermal cyst, mucinous cyst, neuroma, leiomyoma, nodular fasciitis, and giant cell tumor of the tendon sheath (GCTTS)[12]. In particular, clinical features of GCTTS are similar to those of FTS. However, FTS is distinguished from GCTTS by histopathology features, which include the fact that GCTTS are less hyalinized and more cellular, and with histiocytes and monocytes as well as multinucleated giant cells, foam cells, and hemosiderin-laden macrophages[12]. Regarding multiple nodules on the palmar area, Dupuytren's contracture should be considered as a differential diagnosis. It is the best known multiple palmar fibromatosis[13]. Clinical manifestation usually showed flexural contracture of the hand, particularly the ring and little finger area. This patient did not show any limitation of foot or toe movement; therefore, diagnosis of Dupuytren's contracture was easily ruled out in the clinical setting.

We herein report on a very rare case of FTSs on the foot. This case implies that FTS may not be a true neoplasm but a reactive process provoked by sustained inflammation and stimulation.

Conclusion:-

Fibroma of tendon sheath of foot is a rare occurrence. Excision of mass gave us excellent result.Excisional biopsy confirmed the diagnosis.

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