Fibroma of extensor digitorum tendon sheath in 27yr old male patient: A case report

Dr. Siddaram Patil N, Dr. Sagar K and Dr. Sai Ram

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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 be misinterpreted as malignant. The differential diagnosis is briefly discussed.

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

Introduction
Case presentation
26 yrs male patient presented to our hospital with complaints of swelling over dorsum of left foot since 1yr insidious 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. clinically, 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 consistency, non tender, fixed to deeper structure, with irregular border.

Fig 1: Single solitary swelling over dorsum of left foot.

Fig 2: x-ray radiolucent mass 1st n 2nd metatarsals with no calcifications noted.
Fig 3: Ultrasound of swelling over left foot, heterogeneously hypoechoic lesion measuring 7x4x5 cm noted in dorsum of left foot extending from base of 1st metatarsal to head of 1st metatarsal n laterally into 1st metatarsal space, no vascularity noted within tendons extensor hallucis longus n brevis shows normal fibrillar pattern through the lesion n underlying cortex of 1st metatarsal base appears normal.
Fig 4: CT Scan Of Left Foot : A well defined isodense mass lesion measuring, seen out to 1st n 2nd metatarsals extending upto 1st n 2nd proximal phalanges of left foot.

Fig 5: MRI Contrast of Left Foot, A well defined mass lesion measuring (7.3 x 3.6 x 5.4) (SI x AP x TR) seen anterior to lst and 2nd metatarsals extending upto lst and 2nd proximal phalanges of left foot. It is extra articular in Position.
Surgical procedure: fig 6, 7, 8, 9, 10, 11, shows excision of swelling from extensor hallucis tendon.

Fig 12: Macroscopic Features: received soft tissue masses, largest measuring 7x4x2 cm, another measuring 5x3x2 cm. Largest mass: ovoid, globular, Cut section: whitish with foci of bluish discoloration.
Fibroma of tendon sheath

Fibroma of tendon sheath originally described as a low-grade spindle cell sarcoma. However, it is now recognized as a distinct clinicopathological entity with characteristic histological and clinical features. The lesion typically occurs in middle-aged adults, with a slight male predominance. Clinically, fibromas of tendon sheath may be asymptomatic or cause localized pain, stiffness, or limited movement of the involved digit.

Histologically, fibromas of tendon sheath are characterized by a hypocellular mass of spindle cells within abundant collagenous stroma. The cells are typically oval to spindle-shaped with elongated nuclei, fine chromatin, and eosinophilic cytoplasm. They lack the atypical features of malignant fibrous histiocytoma and other sarcomas. The stroma is variably hyalinized and fibrous, with variable cellularity.

Giant cell fibromatosis, also known as giant cell fibroblastoma, is a rare lesion that may resemble fibroma of tendon sheath microscopically. However, giant cell fibromatosis is more common in children and young adults, with a female predominance, and is more likely to be located on the hand or foot.

Discussion

The clinical and histological features of fibroma of tendon sheath are similar to those described in previous studies. The lesion typically presents as a painless, slowly growing mass, often associated with a tendon sheath or tendon. Histologically, the lesion exhibits a hypocellular mass of spindle cells within abundant collagenous stroma. The cells are oval to spindle-shaped with elongated nuclei, fine chromatin, and eosinophilic cytoplasm. The stroma is variably hyalinized and fibrous, with variable cellularity.

Given the typical clinical and histological findings, diagnosis of this lesion should not prove difficult. In conclusion, fibroma of tendon sheath is a distinct clinicopathological entity that should be considered in the differential diagnosis of soft tissue masses arising from or near a tendon sheath.
References