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CASE REPORT

Angiofibrolipoma of the tendon sheath

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Abstract

We present a rare case of benign tumor of the hand.

Keywords:

Hand, tendon sheath, tumor

History

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Introduction

A variety of benign tumors arise from the synovial membrane of the tendon. Lipomas are one of the uncommon benign tumors that arise from the synovial membrane of the tendon sheath, mostly occurring in the wrist and hand when they do [1]. The treatment of synovial lipoma consists of resection of the mass [1].

As a subtype of lipomas, angiofibrolipomas consist of mature adipocytes, vascular tissue, and collagenous connective tissue [2,3]. These tumors are very rare and have been reported in different parts of the body [2–10]. To the best of our knowledge, we present the first case in the literature of an angiofibrolipoma of the tendon sheath.

Case report

In March 2012, a 24-year-old woman presented with a 2-year slow-growing lesion on the dorsum of her left hand. The patient did not complain of pain or functional deficiency. Examination revealed a nodular subcutaneous mass, which moved with the tendon sheath. Magnetic resonance (MR) imaging showed a 1.5 × 2 × 1.5 cm sized heterogeneous hyperintense mass in contact with the extensor digitorum tendon, with intensity similar to subcutaneous fatty tissue on T1- and T2-weighted sequences (Figure 1). Intravenous regional anesthesia was administered. After the skin incision, a mass of lipoma-like small vascular structures was encountered under the subdermal tissue (Figure 2). The mass in the tendon sheath was dissected uneventfully by total excision. The procedure was performed under a tourniquet. Histopathology examination revealed fibrolipomatous areas and a dense vascular structure consistent with the diagnosis of angiofibrolipoma (Figure 3). At the 6-month follow-up, no recurrence was present.

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Discussion

Tumors of the tendon sheath are uncommon. Local symptoms, which appear as the mass grows, are one of the most important characteristics of tendon sheath tumors. Although common in other parts of the body, lipomas are rarely seen in tendon sheaths [1]. When they occur, they cause local, nonspecific symptoms (trigger finger, carpal tunnel syndrome, and tendon rupture) [1]. They may also cause neurovascular compression symptoms like the other tumors [11]. Preoperative differentiation of the mass should be done with an X-ray, ultrasonography, or an MR scan. In our case, the patient presented to our clinic with a mass on her hand. We performed an X-ray to differentiate the lesion from bone and cartilaginous masses and an MR scan to reveal the dimensions and for exact localization of the mass.

Histological variants of lipomas include fibrolipomas, angiolipomas, angiofibrolipomas, angiomyolipomas, and infiltrating angiolipomas [3]. An angiofibrolipoma is one of the rarest histopathological variants of a lipoma [3]. It is composed of mature adipocytes, vascular tissue, and collagenous connective tissue [3].

As for all lipomas, angiofibrolipomas are treated with surgery, and recurrence rates are very low [2,10]. However, infiltrating angiolipomas have a high recurrence rate [10]. Meticulous dissection should be done to prevent bleeding and recurrence.

In conclusion, it should be kept in mind that angiofibrolipomas, a rare type of lipoma, can cause tendon sheath masses. Radiological and histological examination is

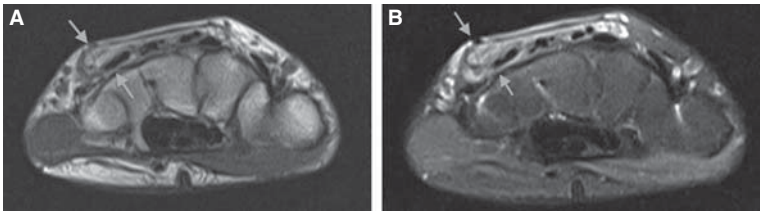

Figure 1. (*a*) Preoperative axial T1-weighted (*b*) and T2-weighted MR images showing heterogeneous hyperintense well-defined mass (arrows), which has similar intensity with subcutaneous fat tissue, adjacent to extensor digitorum tendon.
MR: Magnetic resonance.

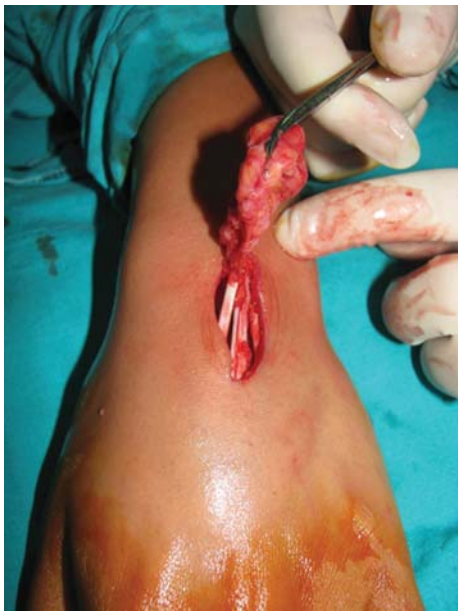

Figure 2. Intraoperative view of the angiofibrolipoma.

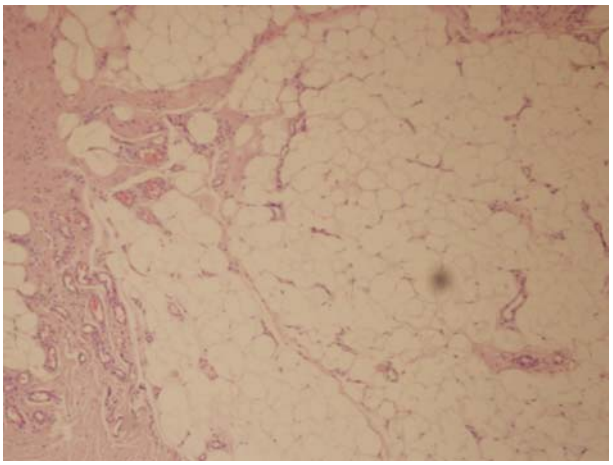

Figure 3. Histological view of the angiofibrolipoma.

important for differential diagnosis. The treatment of all types of lipomas is surgical excision.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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