Cavernous Hemangioma Behaving Like Peroneal Tenosynovitis

Mustafa Ürgüden, M.D.; Hakan Özdemir M.D.; Erdeniz Duygulu M.D.; Ahmet Turan Aydın M.D. Antalaya, Turkey

ABSTRACT

Hemangioma of the tendon sheath is rarely reported. In this case report, a 22-year-old man, who had been seen for peroneal tenosynovitis before (although symptoms remained) was reevaluated. A cavernous hemangioma was located in the peroneal muscle and the tendon. Complete excision was performed.

Key Words: Cavernous Hemangioma, Tenosynovitis, Soft Tissue Tumors, Diagnostic Tests

INTRODUCTION

Hemangiomas are tumorous formations frequently seen in childhood and early adulthood. These tumors, which can be seen in every tissue in the body, constitute from 2% to 8% of all tumors^{6,9,11} and complicate diagnosis and treatment when they are confused with other neoplasms and pathologic conditions of soft tissue. Their classification as neoplasms or as congenital tumors is still being debated². Different histological types show distributions in different anatomical regions.

Hemangiomas are classified according to their clinical sites and the diameter of the vessels within them. At the bottom extreme, wide-vessel types of lesions are met with frequently, and they respond better than smallvessel types to surgical treatment. The most common type is cavernous hemangioma. In cases that do not show spontanous regression, these may cause esthetic problems, functional discomfort, restriction of movement, and muscle weakness, or cause complaints of chronic pain. Hemangiomas that have their origin in a tendon sheath have been reported very rarely^{4,15} and can rarely be diagnosed clinically. Decrease in dimensions of the lesion with elevation of the extremity is an important finding. The lesion may be limited to the sheath or may affect peritendinous fatty tissue and the local muscles. Hemangiomas with origins in a tendon sheath tend to be localized near the wrist and the ankle.

CASE PRESENTATION

A male soldier, age 21, who had often stood for long periods over five or six months, presented to our clinic with an increasing sensory defect in the lateral right ankle, pain, swelling, and complaints of discomfort when wearing shoes. In the beginning the diagnosis was peroneal tenosynovitis, and direct radiographs (Figures 1, 2) were evaluated as normal. But with the persistence of complaints, the case was reevaluated. An early diagnosis of soft tissue tumor was reached using ultrasonography (USG) and magnetic resonance imaging (MRI). On magnetic resonance scan, the tumor was evaluated as hemangioma in the peroneal tendon and peroneal muscle (Figures 3, 4, 5). Upon intraoperative microscopic examination, the tumor was diagnosed as a cavernous hemangioma starting from the peroneal muscle, continuing into the tendon sheath to the fifth metatarsal proximal level of the tendon, and extending by sticking to the surface of the tendon (Figures 6, 7). Complete excision allowed histologic diagnosis of cavernous hemangioma. At 13 months follow-up there were no recurrences nor complaints.

DISCUSSION

Hemangiomas are tumors that can localize in various tissues and sites. Although they are commonly seen, the number of reported cases related to tendons and synovial tissue is very limited. Most cases reported in relation to tendons are on the upper extremities^{1,4,20,14,13}. Few reported cases occur in the lower extremities^{8,21}.

Hemangiomas located in or near a tendon may be confused with other problems clinically. Because they form a local mass, they may behave like bursitis, tenosynovitis, trigger-finger, De'Quervain stenosing tenosynovitis, nerve entrapment and other causes with

Corresponding Author:

Mustafa Ürgüden

Akdeniz Üniversitesi Tıp Fakültesi Ortopedi v Travmatoloji Anabilim Dalı

⁰⁷⁰⁷⁰ Antalava

Turkey

Tel: 90-242-3346731

E-Mail: Urguden@hipokrat.med.akdeniz.edu.tr

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Fig. 1. Lateral view.



Fig. 2. Antero-posterior view.

similar presentations^{4,20,19,22,3,1,14,13}. In our case, peroneal tenosynovitis was first diagnosed, but because of the persistence of complaints, a second evaluation was done. Swelling of the ankle increased with exercise but decreased upon resting, and so a tumor of vascular origin was diagnosed. On MRI, localized cavernous hemangioma was detected in the tendon and the per-oneal muscle. Cases localized in the meniscus and

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Fig. 3. (A) indicates the hemangioma.

bone have been reported by Pinar and colleagues¹².

Jaffe's³ idea is that the lesion develops due to trauma. Our patient confirmed this idea anecdotally; his complaints began at the beginning of training and gradually worsened. The exercise seemed to provide traumatic stimulus to the tumor.

When considerig the diagnosis of soft tissue tumor in the extremities, hemangiomas should be considered in the differential diagnosis, and diagnostic tests like ultrasonography and magnetic resonance imaging should be used in evaluation. In magnetic resonance imaging,



Fig. 4. In MRI, (a) indicates the hemangioma.



Fig. 5. (A) indicates the hemangioma, (B) indicates the peroneal tendon.

high density T2-weighted scans may show septae within the mass²¹. Evaluation of the foot and ankle using magnetic resonance imaging in combination with the history and clinical examination can achieve a correct diagnosis in 75% to 80%^{5.8.12,21} of cases. Our case was also diagnosed using magnetic resonance imaging and clinical findings. Scintigraphy may also be of diagnostic aid¹⁰.

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Fig. 6. (A) indicates the peroneal tendon, (B) indicates the hemangioma.



Fig. 7. (A) indicates the peroneal tendon, (B) indicates the hemangioma and (C) indicates the peroneal muscle.

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