Pilomatrixoma of the Lower Extremity

Alt Ekstremitede Pilomatriksoma

Tibial Pilomatrixoma

Mustafa Işık[1], Ömer Arpacıoğlu[1], Vahap Sarıçiçek[2], Ünsal Baylar[1], Mustafa Kemal Yılmaz[1]
[1]Ortopedi ve Travmatoloji Anabilim Dalı, [2]Anestezi ve Reanimasyon Anabilim Dalı,
Gaziantep Üniversitesi Tıp Fakültesi, Gaziantep, Türkiye

Özet

Trikomatriksoma, Trikilemmal kist veya Malherbe'nin kalsifik epitelyoması olarakta bilinen Pilomatriksoma kıl foliküllerinden köken alan iyi huylu bir tümördür. Çok nadir görülmesine karşın yanlış tanınabilmesi ve diğer lezyonlarla karışabilmesi nedeniyle klinik öneme sahiptir. Pilomatriksoma genelde boyun bölgesinde görülmektedir. Bu olgu sunumunda daha once literatürde çok nadir görülen alt ekstremite yerleşimli pilomatriksoma anlatılmaktadır.

Anahtar Kelimeler

Pilomatriksoma; Alt Ekstremite; Benign Tümör

Abstract

Pilomatrixoma, also known as trikomatriksoma, trichilemmal cyst, or Malherbe's calcifying epithelioma, is a benign tumor originating from the matrix cells of the hair follicles. Despite its rarity, it is of clinical importance, as it may lead to incorrect pre-diagnosis, being confused with other lesions. It is generally seen on the neck region. In this case report, pilomatrixoma of the lower extremity has been described, which has been described in the literature extremely rare.

Keywords

Pilomatrixoma; Lower Extremity; Benign Tumor

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Corresponding Author: Mustafa Işık, Gaziantep Üniversitesi Tıp Fakültesi Şahinbey Hastanesi Ortopedi Kliniği Şahinbey, Gaziantep, Türkiye.
GSM: +905336361796 E-Mail: drmustafaisik@yahoo.com

Introduction

Pilomatrixoma, also known as trikomatriksoma, trichilemmal cyst, or Malherbe's calcifying epithelioma, is a benign tumor originating from the matrix cells of the hair follicles. Despite its rarity, it is of clinical importance, as it may lead to incorrect pre-diagnosis, being confused with other lesions. It is generally seen on the neck and upper extremities. In this case report, pilomatrixoma of the lower extremity has been described, which has been described in the literature extremely rare.

Case Report

A 48-year-old white female patient was admitted to our clinic complaining of right knee pain after a fall, with diffuse tenderness and minimal swelling in the knee joint on physical examination. Range of motion was normal. During the examination, a mobile soft tissue mass of hard consistency, approximately 2x2 cm in the proximal part of the right tibia was determined. There was no discoloration of the skin, or an increase in temperature. The patient reported that the mass was present for three years. The patient had no history of trauma, fever, night sweats, or weight loss. Physical examination revealed no other abnormality. Taking the location of the mass into consideration, lipoma was considered as the initial diagnosis.

X-ray radiographs of the patient were reported as normal. An ultrasound (US) examination revealed a solid mass of 1.5x2 cm, located under the skin. Computerized Tomography (CT) and Magnetic Resonance Imaging (MRI) examinations were not carried out.

In differential diagnoses, epidermoid/dermoid cysts, calcified lymph nodes, calcified hematomas, foreign bodies, sebaceous cyst-like lesions, and chondroma should be considered.

The mass was totally excised together with the surrounding soft tissue, under local anesthesia (figure 1).

Histological examination of the excised mass was reported as pilomatrixoma. No local recurrence was observed in the 1-year follow-up of the patient.



Figure 1. Clinical viewing of excised mass

Discussion

Pilomatrixoma is a benign tumor derived from cells of the hair follicle, which is usually localized in the neck region [1]. The name pilomatrixoma was given by Forbis and Helwig in 1961 [2]. It can be seen at any age and is more common in women [3]. Although its etiology is unknown, it may be associated with trauma, infection, or a pause in the cycle of the hair follicles [4]. Two major parts are characteristic for pilomatricoma: basophilic cells and shadow cells for pathological investigation. Although the genetic mutation has been questioned in some cases, a genetic disorder was not considered in our case.

Pilomatrixomas have been reported often on the trunk, rarely in the upper extremities, and the head and neck region [5]. It has been defined previously extremely rare in the lower extremities. Clinically, the lesion is typically hard as cartilage or bone. The other typical features are slow growth, ease of movement under the skin, and blue-red discoloration of the skin.

In the literature, there are rare malignant cases with distant metastases originating from Pilomatrixoma [6]. Pilomatrix carcinoma is typically painless, often in larger sizes compared to the benign type, and often prone to local recurrence. Metastases are rare. For the diagnosis, examinations such as ultrasound, fine-needle aspiration biopsy, CT, and MRI are used. The rate of correct diagnosis is still not high. Definitive diagnosis requires a histopathological examination. These tests are used for the differential diagnosis of the tumor depending on the localization of the tumor. The differential diagnosis includes epidermoid/dermoid cyst, calcified lymph nodes, calcified hematoma, foreign body, sebaceous cyst-like lesions, and chondroma [7]. In our case, because there were no changes in the size of the lesion for a long time and due to the location of the lesion, no further investigations other than USG were performed. In the intraoperative examination, the mass was approximately 2x1.5 cm in size, hard in consistency, without any discoloration, and mobile in nature. The postoperative histopathological diagnosis was reported as pilomatrixoma (figure 2).

The rate of correct pre-diagnosis of this lesion is very variable. In particular, as the physician is not familiar with such a case, it does not come to mind. Like in pilomatrixoma, in the malignant form, which has a high potential for local recurrence, a resection is required, with removal of 1-2 cm of the surrounding healthy tissue in order to prevent the local relapse [8]. The recurrence rate has been reported as 0-3% in the literature.

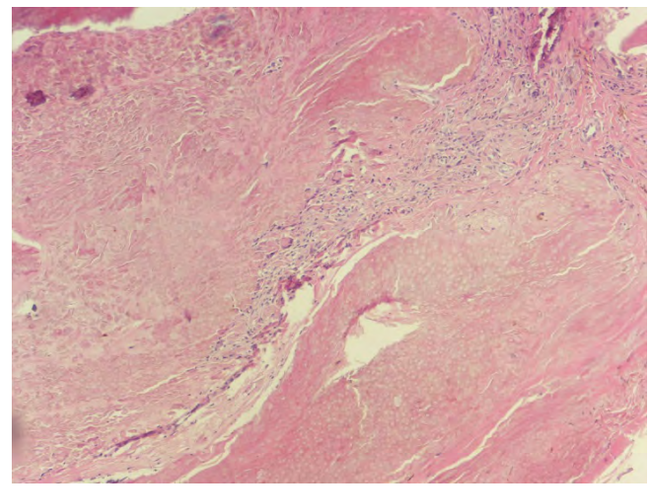


Figure 2. Histopathological image of mass. (HE X 40)

Conclusion

- Pilomatrixoma is a very rare benign soft tissue tumor.
- It can be overlooked, if a careful examination is not carried out.
- Although it is usually seen in neck region, it may also be encountered in other parts of the body.
- It should be totally excised, since there is a slight risk of malignant transformation.
- After the histopathological diagnosis, the patient should be followed-up on for recurrence.

Competing interests

The authors declare that they have no competing interests.

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