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Research Article

Trichilemmal Cyst of Foot: A Case Report

Mishraz Shaikh, Nabil Ahmed Shaybah, Abdelbasit E Ali and Abeer Seadan Alrasheedi*

Department of Pediatric Surgery, King Saud Medical City, Saudi Arabia

Abstract

Pediatric trichilemmal foot cyst is uncommon. We report a case of 12 years old girl with swelling and pain on left foot for 6 months, presented as case of foot abscess secondary to foreign body initially and later diagnosed with infected cyst, drainage as well as complete excision of cyst wall was done, Histopathology revealed trichilemmal cyst. No complication or recurrence noted on regular Follow up. This is the first reported case of a trichilemmal cyst on the foot in pediatric population.

Keywords: Trichilemmal cyst; Foot; Pediatric surgery; Tumors

Introduction

Trichilemmal Cyst (TC) which is also called Pillar cyst, it commonly occurs in areas of hair follicle, with 90% arising in the scalp and 10% occurring on the face, neck, and extremities. These benign encapsulated lesions are seen in adults and are solitary in only 30% of patients. A familial predisposition to these cysts has been reported with an autosomal dominant pattern of inheritance. Familial cysts occur in patients younger than 45 years old and are usually large (>5 cm), either solitary or multiple and have histological features of proliferation and ossification Trichilemmal cysts have been known to occur in atypical locations with no hair follicles, such as on the pulp of the fingertips. Proliferating trichilemmal cysts are progressive slow-growing nodules commonly seen in women with a mean age of 65 years. The first case of a foot (sole) trichilemmal cyst is reported here and the differential diagnosis elucidated.

Case Presentation

A 12-year-old girl admitted *via* emergency department with swelling on sole of left foot in the last 6 months which gradually increasing in size and presented to Emergency department with infected cyst/impacted foreign body (Figure 1). Patient already received oral antibiotics for one week, but symptoms not resolved. Clinical examination showed 3 cm × 3 cm fluctuant, tender, nodular swelling on left sole of foot with minimal pus discharge. Radiological examination was unremarkable.

Patient was admitted and planned for incision and drainage, during procedure, drainage with intact cyst complete wall was removed. Postoperative period remained uneventful. Follow up at 6 months did not show any recurrence. Histopathology examination revealed stratified squamous epithelium that has palisaded outer layer and dense laminated eosinophilic keratin suggestive with Trichilemmal (pilar) cyst (Figure 2).

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***Corresponding author:** Mishraz Shaikh, Department of Pediatric Surgery, King Saud Medical City, Riyadh, Saudi Arabia, Tel: +966-507564169

Discussion

Trichilemmal cysts are line by stratified squamous epithelium which is analogous to epithelium seen in isthmus of hair follicle. This isthmus act as a bridge between erecter pili muscle and sebaceous gland duct. These are the characteristic finding of benign, on-inflamed, non-infected and non-malignant TC [1-4]. The Contents inside cyst may expel to form a cutaneous horn [5-6]. They usually occur in hairy areas of body like scalp, face, neck extremity and atypical areas which are areas without hair follicles such as soles of foot, fingertips.

Our patient presented as infected cyst, which was not resolved on local management, so complete excision of cyst was done to prevent recurrent cyst/abscess formation. However, early cyst recommended preventing infection, inflammation and extremely rare malignant transformation [7]. The literature only describes unusual localization of TC in hand, pulp of finger, penis, upper lip, nose [8] and one reported case in neck region extending to deep structures with unusual behavior [9]. This is first case report in literature to present with TC on the sole of foot, an area devoid of hair follicles.

Conclusion

TC may involve atypical locations, such as sole of foot, finger tips, where there are no hair follicles. After surgical excision, proper histopathology examination needed to differentiate TC from proliferating pillar tumors.

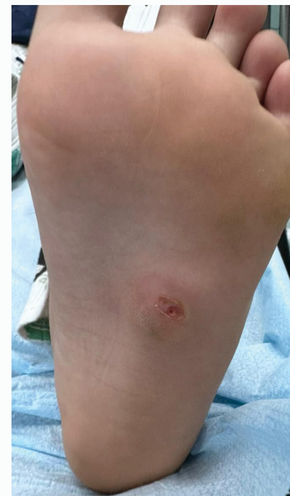

Figure 1: Swelling on sole of left foot.

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Figure 2: Dense laminated eosinophilic keratin suggestive with Trichilemmal (pilar) cyst.

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