



Eccrine Spiradenoma in a Male of 33 Years Old: A Case Report

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ABSTRACT

Introduction: Eccrine spiradenoma is a rare benign neoplasm first described by Kersting and Helwig in 1956. It arises from sweat glands in the dermis and superficial subcutaneous tissue. There is usually no connection to the overlying epidermis. It can occur at any age but more commonly affects young adults and has no sexual predilection. Most patients present with pain or tenderness, as observed in 91% of patients. **Clinical Case:** A 33-year-old male was referred from his family medicine clinic for a probable epidermal cyst on the right forearm with no history of importance for the case that began six years ago with a papule with progressive growth and pain to the touch; later, he presented cessation of treatment. The patient tried to remove it himself without success, so he went to this hospital for exeresis; the sample it sent for a histopathological study, which reported: A dermoid tissue fragment of 0.4x0.2x0.2, grayish brown in color and firm consistency. In the sections, neoformations composed of homogeneous cubic cells with ovoid and hyperchromatic nuclei with ductal zones and observed empty spaces. Histopathological diagnosis of eccrine spiroadenoma. **Discussion:** Spiroadenomas are well-differentiated, benign, dermal neoplasms arising from the hair follicle's pons rather than the eccrine sweat gland, based on CD200 and stem cell marker

immunohistochemical study. The pathogenesis is not fully understood, but a defect in the tumor suppressor gene, CYLD, is believed to contribute to its development in Brooke-Spiegler syndrome, which also presents multiple spiradenomas.

Keywords: Eccrine spiradenoma, benign adnexal tumor, Neuropathic pain, Treatment, Histopathology.

INTRODUCTION

Eccrine spiradenoma (ES) is a rare benign neoplasm first described by Kersting and Helwig in 1956. It arises from sweat glands in the dermis and superficial subcutaneous tissue. There is usually no connection to the overlying epidermis. It can occur at any age but more commonly affects young adults and has no sexual predilection. Most patients present with pain or tenderness, as observed in 91% of patients (1).

Clinically, the tumors appear as firm, well-defined masses, predominantly on the face, neck, and trunk, predominantly on the ventral surface. However, there are case reports of lesions involving the extremities. As of 2017, only reported 25 cases of ES derived from the upper or lower limbs (2).

It is a tumor that can present at any age but typically affects young adults between the ages of 15 and 35. It presents a solitary mass located in the skin and subcutaneous tissue, less than 1 cm in size. Paroxysmal pain and tenderness can often be present. It tends to arise in the upper part of the body, head, neck, and trunk, especially the ventral portion, and rarely, it is located in the upper and lower extremities. (3)

CLINICAL CASE

A 33-year-old male patient arrives from his family medicine clinic due to a probable epidermal cyst in the right forearm with no relevant history. The case started six years ago with a papule with progressive growth and pain to the touch and subsequently presented cessation of growth. The patient tried to remove it himself without success. He went to this hospital for exéresis of the same (Figs. 1 and 2); the piece it sent for histopathological study, which reports: a dermoid tissue fragment of 0.4x0.2x0.2 of grayish brown color and firm consistency. The sections observed neo-formations composed of homogeneous cubic cells with ovoid and hyperchromatic nuclei with ductal zones and empty spaces —histopathological diagnosis of ES.



Figure 1: Preoperative Image.



Figure 2: Postoperative image.

DISCUSSION

Giant vascular ES is a rare vascular variant of eccrine spiradenoma. It could be confused with a vascular lesion or a malignant tumor due to its vascularity and hemorrhagic features. The macroscopic morphology of the tumor is not different. Therefore, the clinical diagnosis of giant vascular ES is complex, and a biopsy is required for diagnostic accuracy (4). Their rarity and clinical appearance lead to misdiagnosis as angiomatous lesions, and they can be diagnosed as thrombosed varix based on clinical presentation and ultrasound characteristics (5). ES should consider in the differential diagnosis of skin tumors associated with epidermal ulceration and multiple skin tumors, either grouped or separated.

ES of the scalp has the same typical features as dermal cylindroma. However, cylindroma can be distinguished histologically from ES by being composed of cords of cells, surrounded by a prominent basement membrane, displayed in mosaic, lacking pseudo glandular structures and a true capsule, have more hyaline material, and are more superficial with a tendency to move closer to the epidermis which flattens or atrophies (6).

Donaldson et al. (7) described a case of a patient's collision that appeared to be a significant multifocal lesion, and she assumed that her painful nodule was due to this trauma. The subsequent progression of symptoms and neurological findings were consistent with post-traumatic neuroma. The clinical history and examination findings are sufficient to diagnose a traumatic neuroma, although there are other causes of painful nerve pathology. Ganglion cysts, schwannoma, neurofibroma, malignant peripheral nerve sheath tumors, lipofibromatous hamartoma, infectious lesions, inflammatory lesions, and ES may all resemble post-traumatic neuroma. Xing Y et al. (8) report an ES originating from the abdominal wall; the tumor is removed without prior imaging studies. Therefore, its ultrasonographic characteristics have yet to receive much attention. Although the definitive diagnosis with histopathological diagnosis, ultrasound is helpful in localization and differential diagnosis. We have learned that ES is located in the subcutaneous fat layer, with well-defined margins, lobulated appearance, heterogeneous echotexture, and posterior acoustic enhancement.

The dermoscopic features of ES are characterized by telangiectasias, occasionally exhibiting images of blue lumps and serpentine vessels. Confocal reflectance microscopy (MCR) reveals a multilobulated skin neoplasm with a homogeneous appearance, with a white dot pattern within the tumor nodules. We postulate that the homogeneous white dot pattern is caused by collagen in the globules of basement membrane eosinophilic material, as this structure is highly refractive. It that ES should be suspected when MRC reveals: 1) a multilobulated, well-defined dermal tumor; 2) a typical homogeneous pattern of white dots within the tumor nodules; and 3) the absence of MRC signs based on basal cell carcinoma (9)

ES are well-differentiated, benign, dermal neoplasms arising from the hair follicle's pons rather than the eccrine sweat gland, based on CD200 and stem cell marker immunohistochemical study. The pathogenesis is not fully understood, but a defect in the tumor suppressor gene, CYLD, is believed to contribute to its development in Brooke-Spiegler syndrome, which also presents multiple ES. In addition, disorders in intercellular bridging proteins that maintain epithelial organization, including claudin-4, cadherin, and beta-catenin, have also been suggested as contributors to neoplasm formation. Therefore, recommended conservative surgical excision of ES, and in cases of multiple ES, adjuvant CO2 laser therapy can be used after debulking surgery if required. (10).

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