



Hemorrhagic polypoid lesion on the leg - eccrine porocarcinoma: A case report

Bacakta kanamalı polipoid lezyon - ektrin porokarsinom: Bir olgu sunumu

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Abstract

Eccrine porocarcinoma is a rarely seen cutaneous malignancy originating from the intraepidermal ductus of eccrine glands. The disease is characterized by nodular lesions primarily located in the lower extremities. The disease may arise *de novo* or develop from the background of eccrine poroma. Differential diagnoses of eccrine porocarcinoma include various benign and malignant skin conditions such as seborrheic keratosis, verruca, pyogenic granuloma, and squamous cell carcinoma. The histopathological analysis is essential to diagnosis, and dermoscopic imaging of lesions is significant. Eccrine differentiation, cellular pleomorphism, nuclear atypia, invasion in the histopathological examination; carcinoembryonic antigen and epithelial membrane antigen positivity in immunohistochemical study guides the diagnosis. Eccrine porocarcinoma may spread through lymphatic vessels, and therefore it is essential to perform regional lymph node examination and use appropriate imaging methods in patients. The main treatment option for eccrine porocarcinoma is wide surgical excision with clean margins, and excision can be curative in 80% of patients.

Keywords: Eccrine, porocarcinoma, dermoscopy, dermatopathology

Öz

Ektrin porokarsinom, ektrin ter bezlerinin intraepidermal duktal kısmından gelişen nadir görülen kutanöz bir malignitedir. Hastalık özellikle alt ekstremitelerde yerleşimli nodüler lezyonlarla karakterizedir. Ektrin porokarsinom, *de novo* olarak başlayabildiği gibi ektrin poroma zemininden gelişebilen olgularda mevcuttur. Hastalığın ayırıcı tanıları arasında seboreik keratoz, verruka, piyojenik granülom, skuamöz hücreli karsinom gibi benign ve malign hastalıklar yer alabilmektedir. Tanıda histopatolojik inceleme oldukça önem arz etmektedir, lezyonun dermoskopik incelemesinin de tanı için önemi artmaktadır. Histopatolojik incelemede ektrin diferansiyasyon, hücresel pleomorfizm, nükleer atipi, invazyon; immünohistokimyasal çalışmada karsinoembriyonik antijen, epitelyal membran antijeni pozitifliği tanıda yol gösterici olmaktadır. Ektrin porokarsinom lenfatik damarlar aracılığıyla metastaz yapabilmektedir ve bu nedenle hastalarda bölgesel lenf nodu muayanesinin ve gerekli görüntüleme yöntemlerinin yapılması oldukça önemlidir. Hastalığın primer tedavisi temiz sınırla, geniş cerrahi eksizyondur ve eksizyon hastaların %80'inde küratif olabilmektedir.

Anahtar Kelimeler: Ektrin, porokarsinom, dermoskopi, dermatopatoloji

Introduction

Eccrine porocarcinoma is a cutaneous malignancy that develops from the intraepidermal ductal portion of the eccrine sweat glands. The disease, which is characterized by nodular lesions primarily located in the lower extremities, may be delayed in its diagnosis as it varies clinically¹. Here, we present a patient with a hemorrhagic polypoid lesion in the leg which was diagnosed histopathologically as eccrine porocarcinoma. Our aim in presenting this case is to provide a better understanding of the clinical, dermoscopic, and

histopathological features of eccrine porocarcinoma, which is not very common in dermatology practice.

Case Report

A 54-year-old male patient presented to our outpatient clinic with a polypoid leg lesion. He described the lesion that first appeared on his leg two years ago and then slowly enlarged during this period. He had no complaints other than intermittent bleeding. His prior medical records showed

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hypertension treated with candesartan. He had no infection, trauma, allergy, radiotherapy, or immunosuppression history. Dermatologic examination revealed a polypoid lesion measuring 1.5x1.5 cm in diameter, with an erythematous background on the left leg. Dermoscopic investigation showed white-unstructured areas, polymorphic vascular patterns (comma-like, corkscrew, hairpin, glomerular, flower-like), blue-gray structures, and erosions (Figure 1). Excisional biopsy was

performed for histopathologic analysis following clinic evaluation and dermoscopic examination. In the histopathological analysis, ulceration in the epidermis, cells with squamoid differentiation starting from the epidermis and extending to the dermis, and uniform poroid cells were seen. The lesion showed a nodular and focal cystic growth pattern and a microscopic infiltrative appearance. The cells had increased mitotic activity and mild nuclear atypia in focal areas. Immunohistochemistry analysis showed immunoreactivity to epithelial membrane antigen (EMA), staining in duct-like structures with carcinoembryonic antigen (CEA), and nuclear staining with p53. The Ki-67 proliferation index was 15% (Figure 2). After the clinical examination, dermoscopic and histopathological analysis, the patient was diagnosed with eccrine porocarcinoma. An ultrasonographic investigation of the inguinal lymph nodes revealed normal results. The patient was advised to do routine follow-ups, and there was no sign of a recurrence during the follow-ups. Informed consent was obtained.

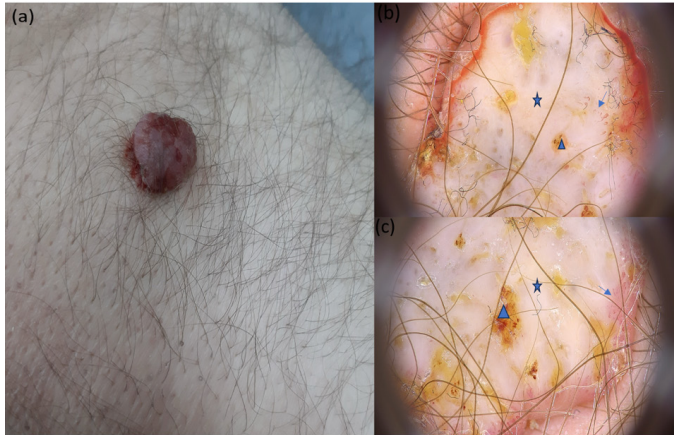


Figure 1. Clinical images (a) polypoid lesion with erythematous background on the leg; dermoscopic images (b), (c) dermoscopic investigation showed white-unstructured areas (star), polymorphic vascular patterns (arrow), and erosions (triangle)

Discussion

Eccrine porocarcinoma is a rarely seen cutaneous malignancy originating from the intraepidermal ductus of eccrine glands. The most typical clinical presentation of eccrine porocarcinoma is a slow-growing nodular lesion that is usually found on the lower extremities, trunk, and head with symptoms like pain or hemorrhage, and it can take time to diagnose because of their clinical variety. Verrucous plaques or polypoid lesions might also be seen, as in our case. The disease

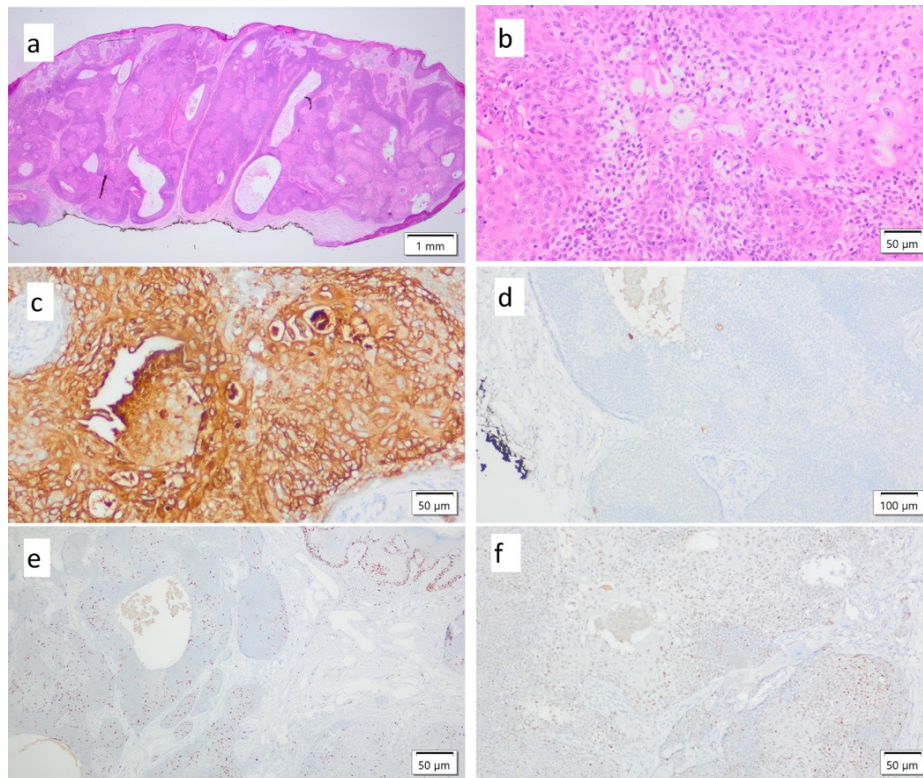


Figure 2. Histopathological images (a) The pattern of the lesion is squamous cell proliferation [hematoxylin and eosin (H&E), x12.5]. (b) The lesion contains focal cystic-poroid structures (H&E, x200). (c) Most of epithelium and poroid structures show epithelial membrane antigen expression (x200), (d) Poroid structures show carcinoembryonic antigen (monoklonal) expression (x200), (e) Ki-67 proliferation index of the lesion was 15% (f) p53 nuclear positive focally.

may arise *de novo* or develop from the background of eccrine poroma, bleeding, tumor growth, and ulceration may be clues to suspect eccrine porocarcinoma in patients with eccrine poroma. Differential diagnoses of eccrine porocarcinoma include various benign and malignant skin conditions such as seborrheic keratosis, verruca, pyogenic granuloma, and squamous cell carcinoma. The histopathological analysis is essential to diagnosis, and eccrine differentiation, cellular pleomorphism, nuclear atypia, and invasion in the histopathological examination; CEA and EMA positivity in immunohistochemical study guides the diagnosis^{1,2,4-6}. Nowadays, dermoscopic imaging of lesions is significant. In a research published by Edamitsu et al.³ polymorphic vascular patterns, pink-white structureless areas, and white-to-pink halo were often seen in dermoscopic findings of eccrine porocarcinoma. In the dermoscopic investigation of our patient's lesion, we detected polymorphic vascular structures and pink-white structureless areas like Edamitsu et al.³ Eccrine porocarcinoma may spread through lymphatic vessels. Therefore, it is essential to perform a regional lymph node examination and use appropriate imaging methods on patients. In our case, lymphadenopathy was not detected with ultrasonography. The main treatment option for eccrine porocarcinoma is wide surgical excision with clean margins, and excision can be curative in 80% of patients, local recurrence in 20% of patients, and metastasis in 10% of patients may be observed in the follow-up of these patients, therefore, regular follow-up is critical. In metastatic and recurrent cases, chemotherapy and radiotherapy belong among the other treatment options^{1,2}. Eccrine porocarcinoma is a rare cutaneous malignancy thus, we wanted to present this case to help understand the clinical, histological, and dermoscopic characteristics of the disease.

Ethics

Informed Consent: Informed consent was obtained.

Authorship Contributions

Surgical and Medical Practices: Y.C.E., B.Ö., E.A., Concept: Y.C.E., B.Ö., E.A., Design: Y.C.E., B.Ö., E.A., Data Collection or Processing: Y.C.E., B.Ö., E.A., Analysis or Interpretation: Y.C.E., B.Ö., E.A., Literature Search: Y.C.E., B.Ö., E.A., Writing: Y.C.E., B.Ö., E.A.

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