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Case Report

Rapidly growing pedunculated eccrine poroma on the neck

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Abstract Eccrine poroma (EP) is an uncommon benign tumor of intra-epidermal portion of sweat ducts, usually affecting palmoplantar area in middle-aged patients. In this report, we describe the case of a 66-year-old man with an asymptomatic, rapidly growing, pedunculated nodule on his neck. The lesion was removed by simple excision. Histopathologic studies confirmed eccrine poroma as final diagnosis. No sign of recurrence was seen during 6 months of follow-up. Pedunculated presentation, rapid growth and the site of the lesion in our case is rare.

Key words
Eccrine poroma; Neck; Pedunculated.

Introduction

Eccrine poroma (EP) is an uncommon benign tumor of intra-epidermal portion of sweat ducts which was first described by pinkus et.al in 1956.[1] It is usually characterized by a solitary, asymptomatic, well defined, red to brownish nodule, which is mostly affecting palmoplantar areas in middle-aged individuals with no priority in gender.[2-4] EP is less commonly reported in the areas of face, scalp, chest, forehead, forearm, buttock and rarely in the eyelid and nipple.[2,5-9] It is often revealed with a slowly growing lesion, various size range from 2-30mm, which might resemble a pyogenic granuloma, fibroma, seborrheic keratosis, verruca vulgaris, hemangioma or basal cell carcinoma.[3,10] The main pathogenesis is still unclear but the history of trauma, radiation, scar and solar damage have been considered as predisposing factors.[5,11] Dermoscopic and pathologic studies help to clarify the diagnosis. In dermoscopy, EP mostly exhibits as a blue-white color lesion with white to pink halo, multiple ovoid nests and gray dots, arborizing or glomerular vessels, hairpin telangiectasia and fine scales on the surface.[12-14] Pathology reports show intra-epidermal tumor with extension of the lesion to deep dermis. The lesion has monomorphic cells, with uniform cuboidal appearance, which consists of cystic and solid structures. It has cells smaller than epidermal keratinocytes which have basophilic nucleus.[15,16] Considering EP as a benign neoplasm and its excellent prognosis, References Suggest simple excision as a curative treatment choice with low level of recurrence.[16] Therefore, we report a case of giant pedunculated EP with rapid growth, presenting in a rare site, in the neck.

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Case report

A 66-year-old man visited the outpatient

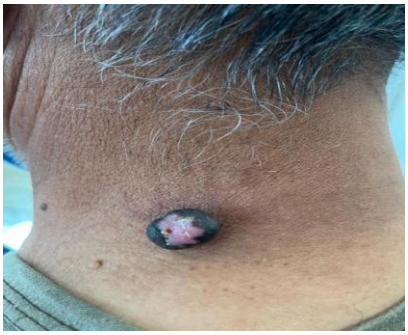

Figure 1 The patient's initial lesion: a single 2 × 2cm pedunculated, asymptomatic lesion on the neck area.

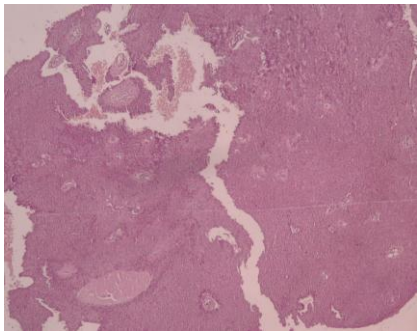

Figure 2 The tumor consists of broad, anastomosing bands emanating from the epidermis (hematoxylin-eosin stain (H&E), 10x).

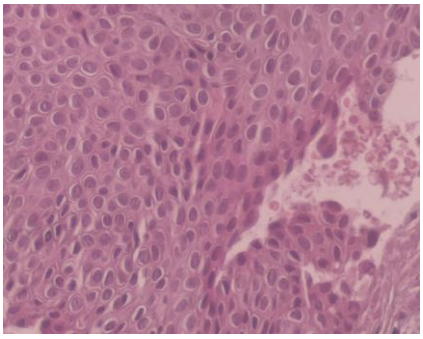

Figure 3 The cells comprising the tumor have a uniformly small cuboidal appearance. The tumor cells are associated with cytoplasmic clearing due to significant amount of glycogen (H&E, 40x).

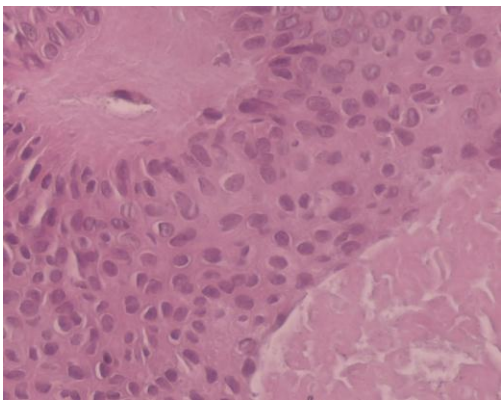

Figure 4 Narrow ductal Lumina and cystic spaces are frequently found within tumor bands (H&E, 40x).

dermatology clinic of Afzalipour Hospital (Kerman, Iran) in February 2022, mainly complaining about a rapidly growing lesion on the posterior side of his neck. The patient mentioned that he had had a small skin-colored lesion on this site for 6 years, which was electro-cauterized with the clinical diagnosis of skin tag last year. 2 months after the electrocautery, he noticed a small round lesion appearing abruptly and growing rapidly at the previous site. There was no specific history of any past medical history, also no history of pain, discharge or bleeding at the site of the lesion. On examination, there was a solitary, non-tender, 2×2cm pink pedunculated nodule with a sharp, well-defined border on his neck **(Figure 1)**. Pre-operative differential diagnosis consisted of pyogenic granuloma, keratoacanthoma, SCC, skin tag and BCC. Total excision was done under the local anesthesia. The specimen was fixed in formalin and studied by two expert dermatopathologists. Macroscopic pathologic examination showed a pink-gray piece of skin, which had an underlying circumscribed firm nodule, measuring 2×2 cm, with a surgical margin of 0.2 cm. Microscopic examination with hematoxylin-eosin stain revealed the lesion arises within the lower portion of the epidermis and it extends downward into the dermis as tumor masses consisting of anastomosing bands of epithelial cells **(Figure 2)**. The tumor cells have distinctive appearance; they are smaller than epidermal keratinocytes, with a uniform cuboidal appearance and a round, deeply basophilic nucleus. Characteristically, the tumor cells contain a significant amount of glycogen, which is associated with cytoplasmic clearing **(Figure 3)**. Narrow ductal Lumina and cystic spaces are found within tumor bands. They are lined by an eosinophilic, PAS-positive, diastase-resistant cuticle similar to that lining eccrine sweet ducts **(Figure 4)**. During 6 months of follow-up, the patient showed an excellent response with no significant signs of recurrence.

Discussion

Eccrine Poroma is a rare benign tumor of intra-epithelial portion of the eccrine glands which

occurs equally in men and women. The definite pathogenesis of the disease is not clear yet, but trauma, scaring and x-ray radiation have been proposed as associated factors.[3,16,17] In the present study, the gender of our patient is male, which is similar to the study of C.C Chen and his colleagues.[3] This higher prevalence in males can be attributed to the etiology and predisposing factors of the disease. The reason for this higher prevalence in males may be explained by higher exposure of this gender to various trauma. Eccrine poroma usually presents as a solitary, asymptomatic papule or nodule as we saw in our case. Clinically, the diameter of this tumor is reported less than 1.5-2cm, though the size of our patient's mass was 2×2cm which is considered large in proportion to the previous known cases.[3] While most of the previous articles regarded palms and soles as the most common sites for EP, in the present case, the lesion occurred within a rare site, in the neck.[16] To understand this issue, we need to return to the etiology of this disease. EP is caused by the excessive proliferation of intra-epidermal portion of sweat ducts; so it is certainly predictable that this disease is more common in the palms, soles and any other sites where eccrine glands are numerous, but considering the possible trigger factors may justify its occurrence in an uncommon area. Therefore, the main cause of occurrence of this lesion in the neck area is probably due to the same previous skin trauma caused by electrocautery. Unlike other previous articles which enumerate EP as a slow growing mass, we faced a fast-growing lesion.[6,11,17,18] Previous skin damage in our patient and the repairing process of the damaged tissue may accelerate the lesions growth in this special case. According to different references, the best treatment of this lesion is total excision which has no recurrence most of the times. Here, we followed our case for 6 months after total excisional biopsy, no sign and symptoms of recurrence was detected.[16,17]

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