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Case Report

Eccrine poroma over the scalp: an atypical presentation

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ABSTRACT

An eccrine poroma is a solitary tumor arising from the eccrine duct epithelium in the epidermis. The lesions commonly occur on palm and soles, and occasionally on the nose, eyelids, neck, and chest. We report a patient who presented with a slow-growing nodular lesion over his scalp, dermoscopic examination showed lobular appearance composed a structureless white areas and pigmentation at periphery with erosion in centre, vascular pattern with interlacing white cords separating structure-less islands with central ulceration. Histopathology examination showed a nodular infiltrate composed of poroid cells extending from epidermis to dermis and finding suggestive of an eccrine poroma. We are presenting this case for its unusual site and early onset of presentation.

Keywords: Eccrine poroma, Atypical site, Dermoscopy of poroma

INTRODUCTION

Poroma is a benign eccrine neoplasm initially described by Goldman et al in 1956.[1] It represents 10% of all sweat gland tumours.[2] Usually, affects middle-aged to elderly patients, with an average 55-57 years, and with equal sex predilection. Poroma present as a single, flesh-coloured papule or nodule on the palm, sole or trunk. Other uncommon sites are scalp, face, ear and eye.[1,2] Here we report a case of young 29-year-old male patient presenting with a slow-growing, pigmented ulcerated nodule over the scalp.

CASE REPORT

A twenty-nine-year-old man presented with a slow-growing raised lesion over the scalp for three years. The lesion started as a tiny, 2 mm asymptomatic papule on the left frontal aspect of scalp and gradually increased to 2 cm in size in last one year. History of occasional bleeding is present. There was no history of trauma. There was no family history of similar lesions.

Examination revealed a single, firm, non-tender, hyperpigmented nodule with central ulceration over left frontal aspect of scalp (Figure 1). On palpation lesion did not bleed. The local lymph nodes were not enlarged. Differential diagnoses considered were appendageal tumour, basal cell carcinoma, pyogenic granuloma, and keratoacanthoma.

Dermoscopy finding showed lobular appearance composed a structureless white areas with interlacing white cords separating structure-less islands with central ulceration and peripheral pigmentation (Figure 2).

Histopathology revealed aggregation of uniform basaloid cells that extend from the basal layer of the epidermis into the dermis, broad anastomosing bands of uniform small cuboidal cells, few ductal lumina, and narrow cystic spaces within the epidermis (Figures 3 and 4).

Based upon clinical, dermoscopy and histopathological findings diagnosis of eccrine poroma was made. The tumour treated with complete surgical excision.

Figure 1: A single, firm, non-tender, hyperpigmented nodule with central ulceration over left frontal aspect of scalp.

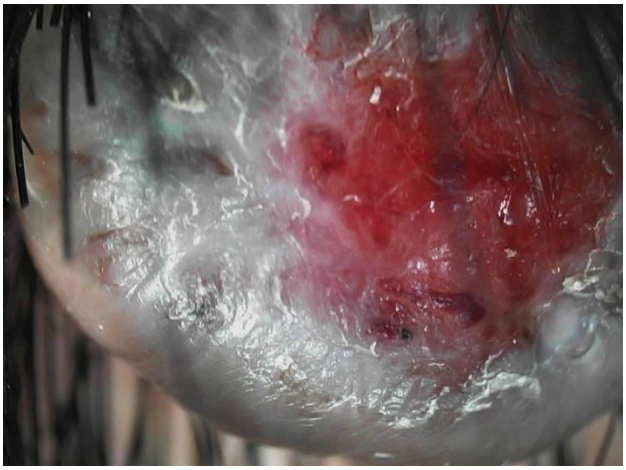

Figure 2: A structureless white areas with interlacing white cords separating structure-less islands with central ulceration and peripheral pigmentation.

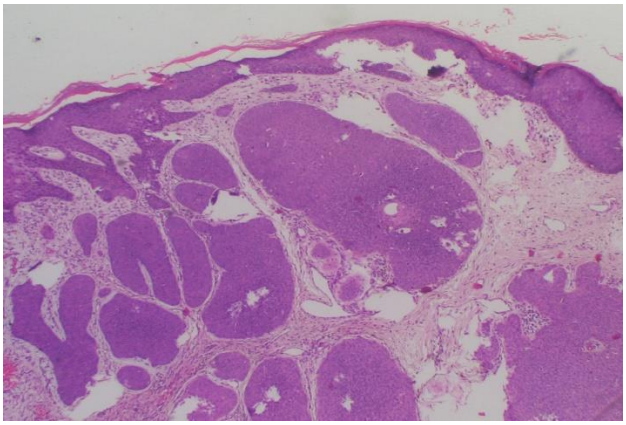

Figure 3: Aggregation of uniform basaloid cells that extend from the basal layer of the epidermis into the dermis, broad anastomosing bands of uniform small cuboidal cells, few ductal lumina, and narrow cystic spaces within the epidermis.

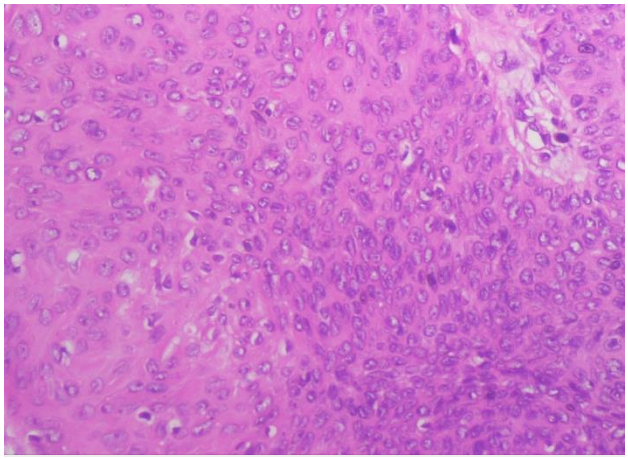

Figure 4: Tumor cells are clear, cuboidal with round basophilic nucleus which are connected by intercellular bridges.

DISCUSSION

Poroma is a benign cutaneous neoplasm related to the acrosyringium, and included in a group of benign adnexal neoplasm with ductal differentiation.[3]

It is classified into a group of four entities: classic poroma, hidroacanthoma simplex, dermal duct tumour, and poroid hidradenoma.[4] Classic poroma presents as a single, flesh-coloured to erythematous papule or nodule and usually occur on the palms and soles. Other rare sites of occurrence of poroma are chest, eye, buttocks and scalp.[1,2,4]

Hidroacanthoma simplex more commonly affect patients in their sixth decade and present as a verrucous or flat plaque most commonly on the trunk. Dermal duct tumour commonly on the trunk. Hidradenoma present as a dermal or subcutaneous nodule with pink, red, or blue coloration and frequently on the trunk

Etiology of the disease is not clear but it is hypothesized to have association with radiation, chemotherapy drugs, trauma, pregnancy and infection of human papillomavirus.[4] Eccrine poroma may exhibit polymorphic feature and can mimic keratoacanthoma or pyogenic granuloma, verruca vulgaris seborrheic keratosis.[1,4]

Dermoscopically, eccrine poroma characterized by the presence of a white-to-pink halo surrounding the vessels, as well as by the association of two additional different features (i.e., glomerular vessels and multiple pink-white structureless areas, glomerular and linear irregular vessels, hairpin vessels and linear irregular vessels.[5,6] At a times eccrine poroma may be indistinguishable from both melanoma and nonmelanoma skin cancers.[3]

Histopathologically, tumor cells are clear, cuboidal with round basophilic nucleus which are connected by intercellular bridges. Most eccrine poromas shows ductal lumina and occasional cystic spaces within tumor bands

which are lined by eosinophilic PAS positive cuticle.[2] Intraepidermal poral cell aggravations called as 'hidrocanthoma simplex' while intradermal tumoral island of various shapes with duct lumina called as dermal duct tumors. Hidradenoma is characterized by variably sized nests and nodules of epithelial cell within upper or mid dermis without overlying connection to epidermis.[4]

In this case, patient presented at the age of 30 years, with a slow growing asymptomatic lesion over scalp. There was no history of repeated trauma, radiation, drugs infection. Based on clinical presentation differentials of appendageal tumour, basal cell carcinoma, keratoacanthoma or pyogenic granuloma were considered. Here dermoscopy helped us to differentiate between different provisional diagnosis. Histopathological examination confirmed growth of an eccrine poroma. Histopathological examination is critical to establishing the diagnosis of various rare and recurrent neoplastic lesions.

Occasionally, poromas may be of divergent adnexal differentiation in which case, immunohistochemistry studies may have to be performed.

In this case lesion was completely excised in second session and no recurrence was seen till date. Complete excision is treatment of choice for deep lesions, however superficial lesions may be treated with shave, electrosurgical destruction or simple excision.

CONCLUSION

There have been only few cases of scalp poroma are reported in the literature. It is benign neoplasm of the eccrine gland with ductal differentiation. Dermoscopy being non-invasive technique, should be performed to differentiate between various benign and malignant scalp tumour to avoid unnecessary extensive surgical procedures.

We also emphasize that in all cases of doubtful lesion, a biopsy and histopathological should be performed.

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