Apocrine hidradenoma of the scalp: an unusual presentation as a chronic wound

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Hidradenomas are rare, benign adnexal tumours of eccrine, apocrine or mixed origin. This is a case of a young (21-year-old) HIV-infected male presenting with a chronic ulcerative scalp wound. This wound progressively increased in size over 4 years. The chronicity of the wound and failure to show evidence of healing raised suspicion, prompting biopsy. Initial biopsy suspected syringocystadenoma. This tumour was excised and a rotation advancement flap was used to close the defect. Histology showed features in keeping with hidradenoma of apocrine origin.

Keywords: apocrine hidradenoma, benign adnexal tumour, hidradenoma in HIV, chronic ulcerative wound, adnexal neoplasms, tumours of sweat glands

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Case report

A 21-year-old male presented with a chronic ulcerative wound on his scalp. He was otherwise well with a background of being human immunodeficiency virus (HIV) infected and on antiretroviral treatment (ART) (absolute CD4 count 315 cells/uL). This wound started spontaneously 4 years ago as a small growth and progressively enlarged. He had no other contributory past medical or surgical history. He was seen and treated for this lesion on multiple occasions at base hospital. The lesion was 4 cm x 6 cm in size with approximately 2 cm of elevation on the right posterior occipital aspect of the scalp (Figure 1). The ulcerative surface was clean granulation tissue with no hair growth over the lesion. There were no other skin lesions noted. No lymphadenopathy or other significant findings were elicited. A punch biopsy was done at his referral institution which found features compatible with possible syringocystadenoma papilliferum.

Figure 1: Preoperative images of ulcerating lesion of the right scalp

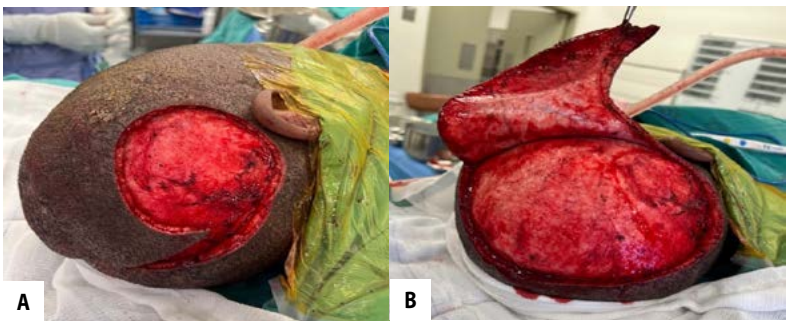

Figure 2: Intraoperative images of ulcerating lesion of the right scalp; (a) post excision of lesion; (B) scalp advancement flap raised

A wide local excision with 1 cm margins and a rotation advancement flap was performed (Figure 2). Follow-up of patient at 2-weeks showed good healing.

Figure 2C: Flap rotated and closed with skin clips

Discussion

The largest organ of the body is the skin and within its dermal layer are skin appendages. These can be broken down into the pilosebaceous unit, eccrine cutaneous sweat gland and apocrine cutaneous sweat gland. Apocrine sweat glands can be found in the face, axilla, and anogenital areas, whereas eccrine glands can exist throughout the body, specifically the palms and soles. Skin adnexal tumours can develop from any of these appendages.[1]

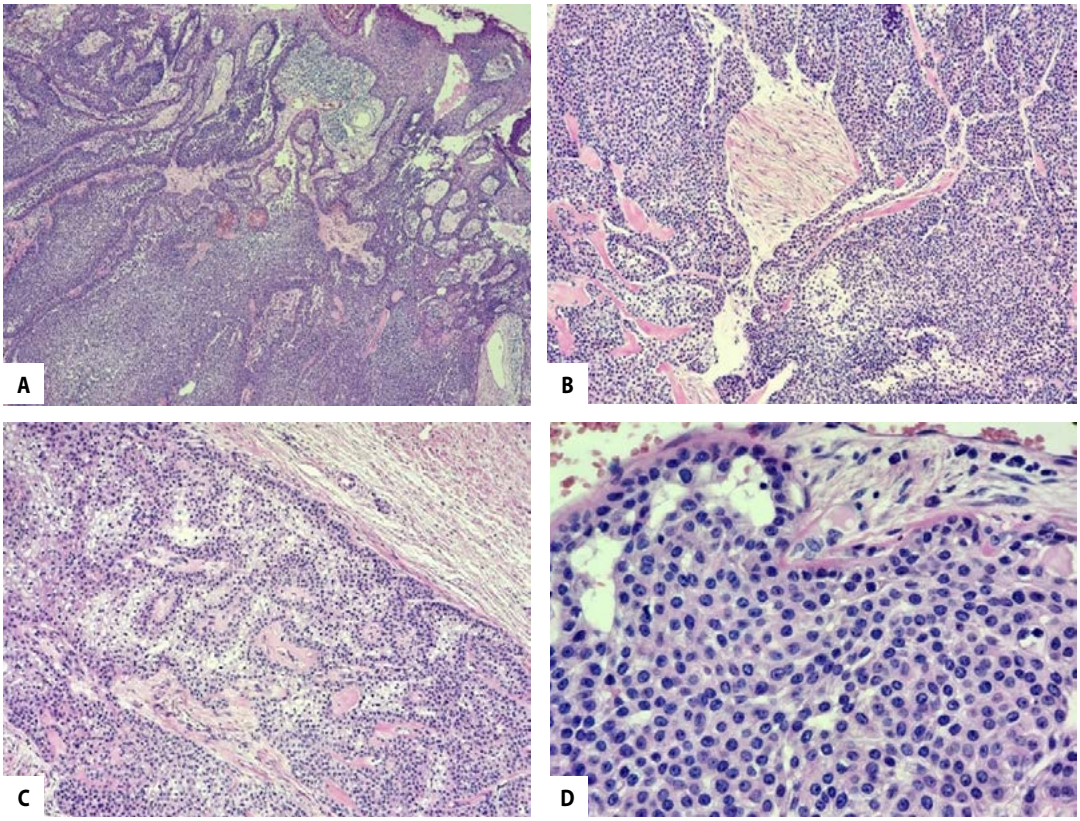

Figure 3: Histological findings on excised lesion, in keeping with apocrine hidradenoma; (A) operative specimen sections showed a lobulated dermal-based solid and cystic lesion with connection to the overlying surface epidermis; (B & C) the lesion comprised bland poroid cells arranged in nests with some cells showing clear cell change and intervening vessels show hyalinisation; (D) higher power magnification shows the bland poroid cells with luminal differentiation (upper middle)

Apocrine hidradenomas are rare benign adnexal tumours. Most of the skin adnexal tumours differentiate along a single adnexal line. This allows us to categorise them into their corresponding adnexa or subdivisions by examining the formation of specific features (structure, cytochemistry and immunochemistry). But since cutaneous adnexa has the same origin, their features share common grounds.[2] However, it has been shown that the clear cell variance are of apocrine differentiation. There are only a small number of cases that are of true eccrine origin.[2,3] We report this case because of its unusual presentation as a wound, the rarity of this pathology as well as its association with HIV infection.

Hidradenomas or eccrine acrospiromas arise from the distal excretory duct of the eccrine sweat glands. It is more common in females than in males.[2,4,5,6] There is only one reported case (malignant nodular hidradenoma) associated with HIV infection.[7]

These tumours generally affect middle-aged adults but range from children to the elderly (range 3–93 years of age). They can occur at any site on the body, but usually occur in the head, neck or limbs. Hidradenomas present as a progressively growing solitary nodule which could have solid or cystic components.[2-4] Some of the tumours secrete serous material, whilst other lesions can become ulcerative.[1] These tumours can sometimes be symptomatic, presenting with spontaneous oozing, haemorrhage, tenderness, pruritis and burning. Complete excision is the treatment of choice, with recurrence being uncommon.[2,4]

Some of the proliferating cells share cytological similarity to 'eccrine poroma', however, other types incorporate abundant clear cytoplasm hence the term clear cell hidradenoma.[2,4]

There was only one published case report found, which showed a perianal malignant nodular hidradenoma in an HIV-infected pregnant patient. The malignant potential of these lesions, especially in the HIV-infected population, isn't understood and surgical excision is always advised.[7]

Conclusion

In our case, the patient is HIV infected, presented at an early age with an ulcerative lesion and had a hidradenoma of apocrine origin. At 2-month follow-up, the patient showed no complications or early recurrence and is currently being monitored for recurrence. Hidradenoma is a rare benign tumour which can present with non-specific symptoms and skin lesions. In patients with chronic ulcerative wounds, non-benign and benign tumours should be considered, and actively excluded. The diagnosis of a hidradenoma, although rare, should be considered in a patient with a chronic ulcerative wound, especially in the case of an immunocompromised patient. It is difficult to categorise these tumours as there are mixed variants (eccrine and apocrine). Prompt diagnosis by biopsy of chronic wounds is invaluable, and surgical excision remains the mainstay of management. Patients with recurrence or worrisome features on histology (lymphovascular invasion) will need long-term follow-up.

Conflict of interest
The authors declare no conflict of interest.

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Ethical approval

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