SHORT COMMUNICATIONS

Eccrine Porocarcinoma Masquerading as Squamous Cell Carcinoma

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INTRODUCTION

A squamoid variant of eccrine porocarcinoma (EPC) exists and is often misdiagnosed as squamous cell carcinoma (SCC) due to clinical and histopathologic similarities. In this report, we present two cases of presumed SCC based on biopsy findings, later diagnosed as EPC after tumor excision.

CASE PRESENTATION

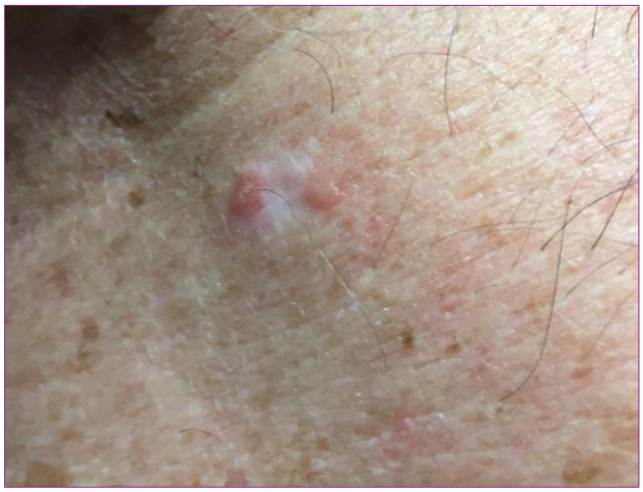
Case 1

A 70-year old Caucasian man with a history of neurofibromatosis type I presented with an asymptomatic hyperkeratotic erythematous papule of unknown duration to his upper back (Fig 1). Shave biopsy revealed invasive, moderately differentiated squamous cell carcinoma (SCC; Fig 2A). After subsequent excision, the specimen was read as moderately-to-poorly differentiated carcinoma with eccrine ductal differentiation (Fig 2B).

Case 2

A 64-year old Caucasian man presented with a 5-year history of an ulcerated hyperkeratotic plaque to his posterior pinna (no clinical photo). Shave biopsy revealed SCC (Figure 3A). After subsequent excision, the specimen was read as poorly differentiated porocarcinoma (Figure 3B).

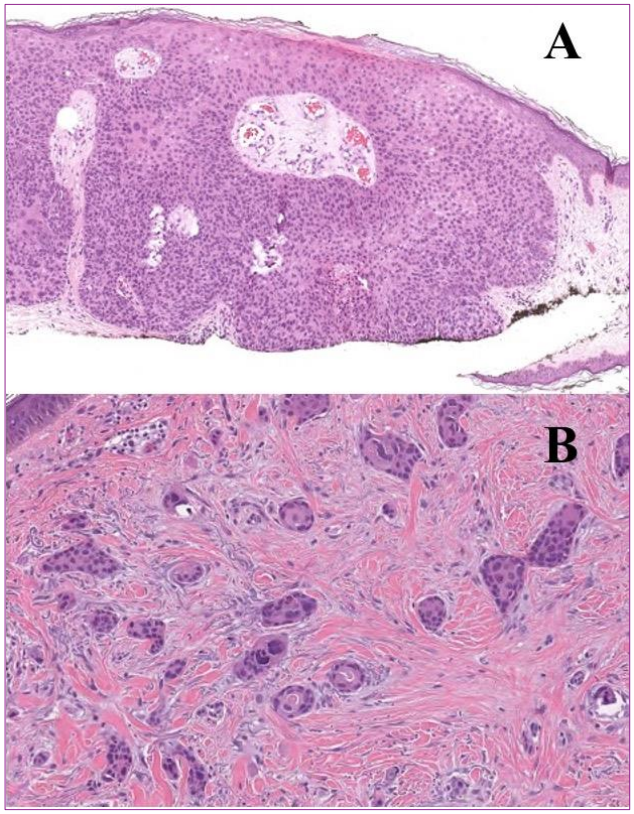
Figure 1. Hyperkeratotic erythematous papule diagnosed as squamous cell carcinoma on biopsy, later diagnosed as eccrine porocarcinoma after excision.



DISCUSSION

In both of these cases, SCC diagnosis was rendered based on shave biopsy specimen, but later changed to eccrine porocarcinoma that after excision. There are reports of a

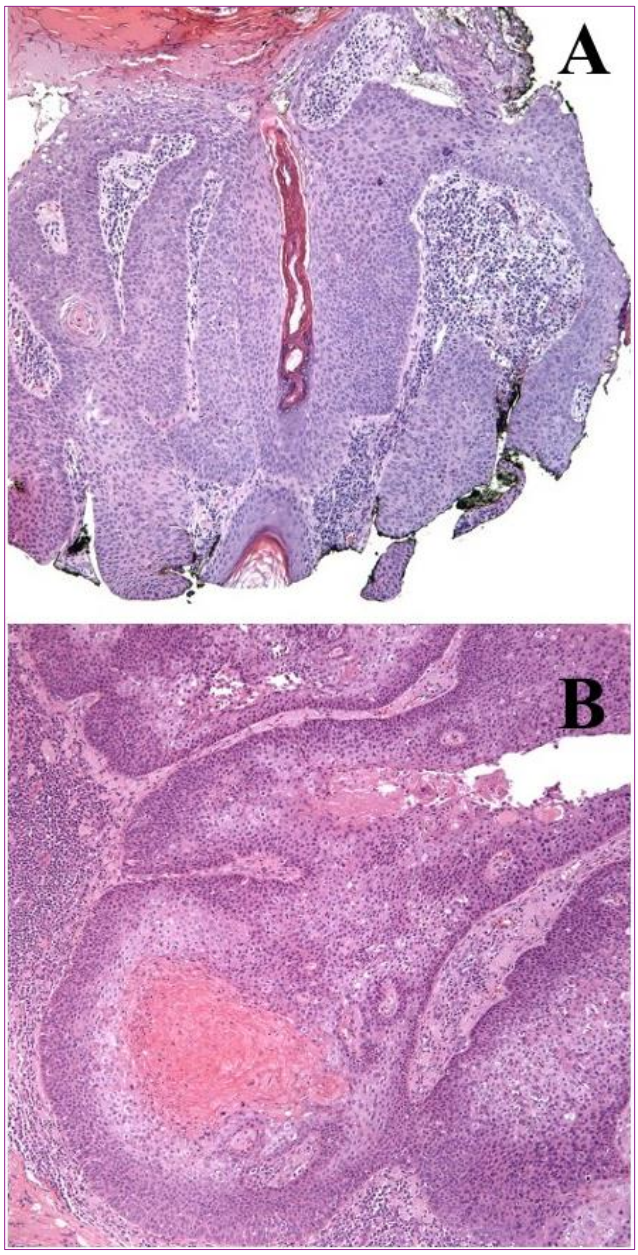
Figure 2. Tumor diagnosed as squamous cell carcinoma on shave biopsy from Case 1 (**A**). The tumor is composed of squamous and basaloid cells and shows continuity with the epidermis. No apparent poroid differentiation. Tumor re-diagnosed as porocarcinoma after excision (**B**). The tumor exhibits anastamosing trabecular growth pattern with ductal differentiation within the dermis. The tumor cells have pleomorphic and vesicular nuclei.



squamous variant of EPC histopathologically mimics SCC or SCC *in situ*, although this presentation is thought to be quite rare. This squamous variant has been characterized in a retrospective study of 21 cases.[1] Features that favor the diagnosis of squamous EPC include tumor cells within the dermis in anastomosing trabeculae and ductal structures lined by tumor cells. Although these features were seen on excised specimens, the initial shave biopsies performed on our patients did not allow for assessment of these characteristics, likely lending to the diagnosis of SCC.

Accurate diagnosis of EPC is imperative for proper medical management. Compared to

Figure 3. Tumor diagnosed as squamous cell carcinoma on shave biopsy from Case 2 (**A**). The lesion shows features of moderately differentiated invasive squamous cell carcinoma, with pleomorphism, increase mitotic activity and keratinization. Tumor re-diagnosed as porocarcinoma after excision (**B**). The tumor is composed of basaloid cells with intracytoplasmic lumina/duct formation and focal keratinization. It has a broadpushing lower borders which are sharply delineated.



cutaneous SCC, EPCs have higher rates of local recurrence (20%), regional recurrence (20%), distant metastasis (12%) and mortality (65% with nodal involvement).[2] Non-surgical SCC *in situ* treatments (topical chemotherapy, electrodessication and curettage) of EPC masquerading as SCC *in situ* would be insufficient, likely contributing to delay of appropriate care and poor outcomes. After reviewing our shave biopsy and excision specimens, the diagnosis of EPC would have been made if the initial shave biopsies from both cases had deeper dermal sampling.

CONCLUSION

We wish to call attention to the existence of the squamous EPC variant, in addition to highlighting the diagnostic difficulty that these lesions may present, as squamous EPC variants and squamous cell malignancies may have similar clinical and histopathologic appearance, especially if sampling via shave biopsy provides little dermal tissue for examination.

Conflict of Interest Disclosures: None

Funding: None

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