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A synchronous incidence of eccrine porocarcinoma of the forearm and facial squamous cell carcinoma: A case report

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ABSTRACT

INTRODUCTION: Cutaneous appendageal tumor can differentiate towards or arise from either pilosebaceous apparatus or the eccrine sweat glands. Appendageal tumors are relatively rare, their clinical appearance is non-specific, and the vast majority are not diagnosed until after excision. Eccrine porocarcinoma (EP), also known as malignant eccrine poroma is a rare adnexal tumor arising from the intraepithelial ductal parts of the sweat gland.
CASE PRESENTATION: We presented a 65-year-old, Asian, female with medical co-morbids, who came with both a facial squamous cell carcinoma and a long-standing lesion over her left forearm. Histopathological finding of the left forearm demonstrated eccrine porocarcinoma.
CONCLUSION: Mohs micrographic surgery is the mainstay treatment of cutaneous carcinoma. It is important to rule out associated syndromes in patient who present with multiple cutaneous appendageal tumors.

1. Introduction

The majority of appendageal tumors differentiate towards or arise from either pilosebaceous apparatus (hair follicle, sebaceous gland and in some body sites the apocrine gland) or the eccrine sweat gland. While the great majority of appendage derived tumors are benign, occasionally they can be cancerous or associated with various important syndromes. The pilosebaceous unit are concentrated in the head and neck area with the pilar element predominant on the scalp and the sebaceous element on the face, chest and upper back. The apocrine sweat glands are mainly found in the axilla, breast and perineal area. The eccrine sweat glands are found on all body sites. Eccrine and apocrine neoplasms present a bewildering array of morphologies which often defy precise classification [1]. Eccrine porocarcinoma (EP), also known as malignant eccrine poroma is a rare adnexal tumor arising from the intraepithelial ductal parts of the sweat gland. These tumors account for 0.005% to 0.01% of all epidermal skin neoplasms [2]. It was first described by Pinkus and Mehreghan [3] in 1963, as 'epidermotropic eccrine carcinoma', later in 1969, Mishima and Morioka [4] introduced the term 'eccrine porocarcinoma'. Since that time, Salih AM et al., has published a meta-analysis of 453 porocarcinoma cases reported worldwide [5]. EP is typically a disease of the elderly, with the mean age at presentation of 60–80 years, although rare cases have been reported in children [6,7]. It is thought to arise *de novo*, but reports of an adjacent benign component on histology suggest that it can also be associated with a pre-existing benign poroma [7]. The presentation is extremely variable, and initial clinical impression is seldom accurate [7]. In line with SCARE criteria [8], we report an unusual case of both squamous cell carcinoma and eccrine porocarcinoma found on a patient.

2. Patient information

A 65-years old, Asian, female, with a medical history of diabetes mellitus, hypertension and dyslipidemia was referred to the Plastic Surgery Clinic from a district hospital for melanoma. The patient's complaint began with a papular lesion over the left forearm 5 years previously, which was circular, gradually increasing in size. She then developed a nodule over her right cheek about 1 year ago. Both were slow growing lesions with no history of ulceration. She denied any history of trauma or discharge previously with no history of skin malignancy in her family. None of her siblings have been screened for any chromosomal studies. There were no constitutional symptoms from this patient. Her main complaint was itchiness and discomfort from both the lesions. She was keen for removal of the lesions. Patient has no known drug or food allergy history.

Patient presented to the clinic on 5th of March 2017.

Excision of both lesions (right cheek and left forearm) were performed under local anaesthesia on 15th March 2017. We were unable to excise the lesion over the left forearm due to exten-

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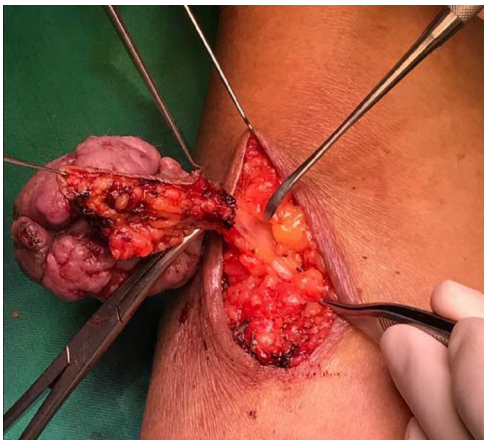

Fig. 1. Excision of left forearm lesion under general anaesthesia. Dissection done to identify the vascular bundle.

sive vascular supply; however, a punch biopsy sample of the left forearm was sent.

Histopathological results were validated on 29th March 2017. Right cheek sample; squamous cell carcinoma, well differentiated. Left forearm biopsy; consistent with eccrine poroma.

Excision of the left forearm lesion was performed by the plastic surgeon under general anaesthesia on 10th April 2017. She was kept for observation at the ward for 2 days post operatively before being discharged home.

2.1. Clinical finding

Generally, the patient was well, not cachexic looking. No lymphadenopathy was noted (cervical and axillary lymph nodes). Pedunculated lesion over the right cheek measuring about 1.0×0.5 centimeters, non-ulcerative. A hard-pedunculated mass over the anteromedial aspect of left mid-forearm measuring 6×5 centimeters, erythematous, cauliflower-like growth with a stalk measuring approximately 1 centimeter, and visible feeding vessels.

2.2. Therapeutic intervention

Under local anaesthesia, a transverse elliptical incision was done over the right cheek with clear margin of 5 milimeters. A punch biopsy was taken initially from the left forearm, a combination of both, the skin lesion tissue with normal tissue were sent for investigation. A transverse elliptical incision over the left forearm lesion with a 1-centimeter margin was done under general anaesthesia and the lesion was removed. Wound was closed primarily (Fig. 1).

2.3. Histopathological finding

a) Right cheek

A hyperpigmented polypoidal tissue measuring $4 \times 5 \times 6$ millimeters. A polypoidal skin lesion with malignant dermal infiltration derived from keratinocytes in epidermal layer. The malignant cells exhibit mild to moderate nuclear pleomorphism with vesicular nuclei, prominent nucleoli and abundant eosinophilic cytoplasm. Keratin pearls and intercellular bridges are seen in areas. Mitotic figures are increased. The surrounding stroma shows moderate lymphoplasmacytic infiltrates. The deep margin is free of tumor. Interpretation: squamous cell carcinoma, well differentiated (Figs. 8 and 9).

- Left forearm:

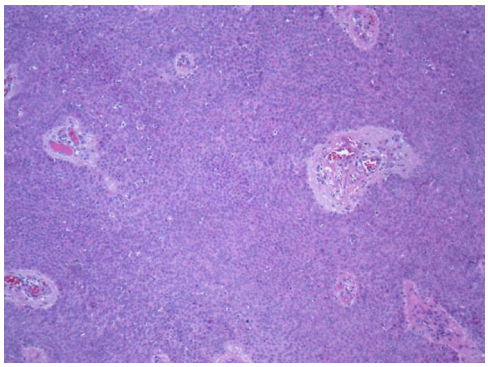

Fig. 2. Eccrine poroma at 10x magnification.

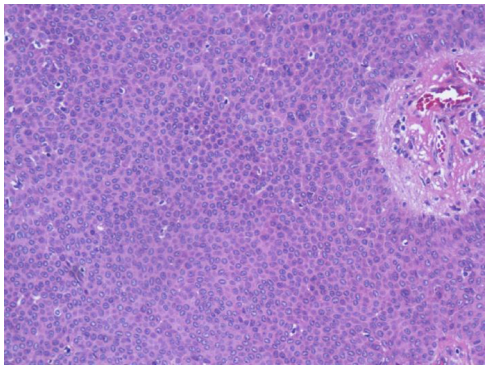

Fig. 3. Eccrine poroma at 20x magnification.

A polypoidal skin lesion composed of proliferation of small keratinocytes attached to the epidermis and extends into the dermis as broad columns. The tumor cells have monomorphic ovoid nuclei, inconspicuous nucleoli and distinct cytoplasmic margins. Occasional ductal luminas and cystic spaces within lobules of the tumor cells are also observed. No increase in mitosis, marked nuclear atypia or necrosis is seen. The surrounding dermis show focal dilated blood vessels. No evidence of malignancy seen. (Figs. 2 and 3).

Interpretation: Eccrine poroma.

A large pedunculated papillomatous skin lesion measuring $50 \times 45 \times 35$ millimeters. The papillomatous lesion is pinkish in color with multiple hyperpigmented areas. The section shows proliferation of tumor cells with inconspicuous intercellular bridges extending from the lower epidermis into the dermis in broad expended columns with pushing border. The tumor cells exhibit two types of atypical cells which is eosinophilic cells with polyhedral round to oval hyperchromatic nuclei, distinct nucleoli and variable amount of eosinophilic cytoplasm. The other types of cells are clear cells type which appear enlarged with round to oval nuclei, inconspicuous nucleoli and have abundant clear cytoplasm. Some of the cells contain pigments with focal squamous differentiation and ductal-like structures. In many areas, obvious nuclear atypia with frequent mitoses and focal necrosis are evident. The surrounding stroma shows proliferation of reactive vessels and mild chronic inflammation. The tumor cells are immunoreactive to CK 7 and non-reactive to S100. Focal reactivity towards SMA is seen in areas. The tumor is completely excised, 10 mm away from margin (Fig. 4–7).

Interpretation: Porocarcinoma arising from eccrine poroma.

2.4. Follow-up and outcome

She was seen at the plastic outpatient clinic 2 weeks later. The scars were well healed. Literature review showed that porocar-