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Case Report

Palmar psoriasis or missed BCC?—A case report

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ABSTRACT

Case report: A 76-year-old Caucasian woman with a history of previous BCCs excised from the head and legs was referred from the dermatology team with a biopsy proven superficial BCC to the left palm. The patient had presented to the dermatology team with the same lesion 7 years prior to the definitive diagnosis. The lesion was described as 27 × 15 mm scaly, poorly-defined, plaque-like lesion to the central palm. There was no ulceration or visible telangiectasia. At the time, an initial diagnosis of psoriasis was given and she received several courses of topical treatments to no avail. Eventually, a biopsy was taken which revealed a multifocal superficial BCC. After unsuccessful attempts at treating with topical Imiquimod, the lesion was surgically excised and resurfaced with a full thickness skin graft.

Discussion: The current understanding that BCCs derive from cells of the hair follicle cannot explain their appearance on the palm. Alternative hypotheses have been proposed as to their actual origin which would account for this rare occurrence. Ultimately, histology can determine the nature of the lesion. We urge clinicians encountering atypical, non-healing lesions to glabrous skin to keep in mind a diagnosis of skin cancer as a delayed diagnosis can lead to increased morbidity.

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Introduction

Basal cell carcinoma (BCC) is the most common skin cancer. It occurs almost exclusively on hair-bearing skin and has long been thought to originate from the cells of the outer root sheath of hair follicles. As such, BCCs arising on glabrous skin are extremely rare and only small amounts are reported in the literature.[1]

The origin of BCCs remains a controversial topic because of conflicting evidence.[2] Recent advances in research have proposed epidermal stem cells as the "cell of origin" of BCC.[3] A clearer understanding of this may, in time, change our understanding of BCCs and lead us to understand the reason for their occurrence on non-hair-bearing areas.

We present the case of a patient with a BCC to the palm treated for a number of years as psoriasis and discuss potential origins of the cells as well as management options to avoid delayed diagnoses in the future.

Case report

A 76-year-old Caucasian woman with a history of previous Basal cell carcinomas (BCC) excised from the head and leg and psoriasis was referred from the dermatology team with a biopsy proven superficial BCC to the left palm.

She had initially presented 7 years prior to the dermatology team with a scaly, erythematous lesion to the left palm. There was no history of trauma or exposure to noxious agents.

Apart from the history of non-melanoma skin cancers and severe psoriasis, she also suffers from Chronic Obstructive Pulmonary Disease and had aortic artery aneurysm repair with a stent in the past. She is allergic to aspirin and takes clopidogrel, simvastatin, amlodipine and salbutamol inhalers regularly.

At the time, a clinical diagnosis of psoriasis was made and she was prescribed coal tar and 2% salicylic acid and was discharged.

Over the next 7 years, she was re-referred on multiple occasions to the dermatology team for an "intermittently painful lesion to the left palm" and was prescribed various topical treatments including diprosalic ointment and imiquimod cream to no avail. Skin scrapings were taken for mycology but no fungal infection was found. Eventually, a biopsy was organised for potential Bowen's disease to the palm not responding to topical treatments.

The biopsy revealed a multifocal, superficial BCC and she was referred to the plastic surgery team. Physical examination revealed a 27 × 15 mm scaly, poorly-defined, plaque-like lesion to the central palm. There was no ulceration or visible telangiectasia (Figure 1).

She underwent an excision under local anaesthetic, removing the lesion with a 4 mm margin down to palmar fascia and reconstruction with a full thickness skin graft. Histology confirmed a complete

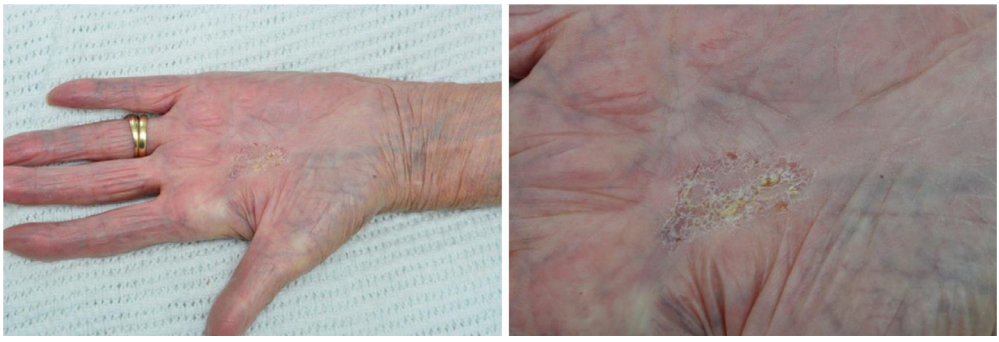

Figure 1. BCC to palm.

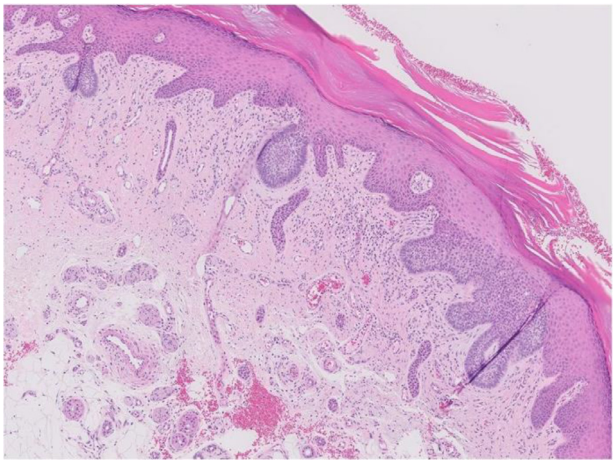

Figure 2. H&E staining showing proliferation of basaloid cells in the form of nests with peripheral palisading of nuclei at the base of the epidermis.

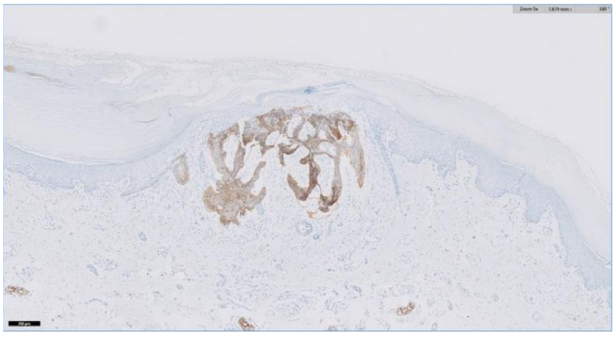

Figure 3. Positive focus of BCC with BerEP4 staining.

excision of the lesion with 2 mm deep and peripheral margins. She had an uneventful healing period and the graft was a success.

Histology with routine H&E staining shows proliferation of basaloid cells in the form of nests with peripheral palisading of nuclei at the base of the epidermis. This appearance is typical of superficial basal cell carcinoma (Figure 2). The focus of BCC was, as expected, positive with BerEP4 staining (Figure 3).

Discussion

BCCs are more prevalent in the head and neck, followed by the trunk and extremities. Treatment options include topical treatments, cryosurgery, intralesional injections and photodynamic therapy, radiotherapy as well as surgical excision dependent on site, size and subtype of lesion.[2,4]

Sun exposure and resulting exposure to ultraviolet light, whether environmental or artificial, is the most important risk factor. Associated risk factors include Fitzpatrick skin types 1 and 2, northern European ethnic origin, intense sun exposure, and use of tanning salons amongst others. BCCs are also associated with syndromes such as nevoid basal cell syndrome, exposure to ionising radiation (radiotherapy) and immunosuppression.

Debates in the literature about the cells of origin of BCCs have been ongoing for a long time. The predominant thought is that BCC tumour cells derive from the outer root sheath or follicular bulb

region of the hair follicle and, as such, areas devoid of follicular structures such as the palm of the hand and sole of the foot should not be affected.[5]

In recent years studies trying to determine the progenitor stem cells of BCCs have yielded different results. One study has demonstrated a possible link with Merkel cells present in mechanosensory niches which are particularly abundant in glabrous skin.[6] However, the question of a specific cell of origin of BCCs on the palm is yet to be answered.

BCCs to the palm are rare, to date only a dozen has been reported in the literature.[1] Our patient did not have any predisposing risk factors and no history of Gorlin's syndrome. Unfortunately, their rarity could, as in this case, predispose them to being missed.

Topical treatments are a well-recognised treatment modality for some BCC subtypes. In this case, however, a series of repeated trials with topical treatments resulted in a delayed diagnosis.

Ultimately, histology can determine the nature of the lesion. Our recommendation is that clinicians encountering atypical, non-healing lesions to glabrous skin should keep in mind a diagnosis of basal cell carcinoma as a delayed diagnosis can lead to increased morbidity.

Declaration of Competing Interest

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Ethical approval

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