Vulvar basal cell carcinoma misdiagnosed for 4 years

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ABSTRACT

Vulvar basal cell carcinoma is a rare cutaneous neoplasm occurring mainly in white postmenopausal females. It can be misdiagnosed due to its nonspecific physical appearance. Here, we report a 59-year-old white female who had vulvar basal cell carcinoma misdiagnosed for 4 years.

Saudi Med J 2006; Vol. 27 (1): 93-94

Basal cell carcinoma (BCC) is a common cutaneous malignancy in the white population.[1] Frequently, it occurs on sun exposed skin in patients with little endogenous melanin production or less in protected body sites such as the axillae, the groin and the buttocks, or in regions, which are entirely protected from the sun, like the vulva.[2] Both environmental and host factors play major roles in its pathogenesis. We present a case of vulvar BCC that was faultily diagnosed and treated for 4 years.

Case Report. A 59-year-old Caucasian postmenopausal female presented to our dermatology clinic with a 4 year history of pruritic non-healing ulcer on the right labium majus. The lesion started as a small papule, which gradually became a non-healing ulcerated lesion that bled easily on scratching with friable tissue at its base. Initially, she was diagnosed as secondarily infected skin lesion, which was treated repeatedly with topical steroids and topical antibiotics such as fusidic acid prescribed by other dermatologists, but with no improvement. In addition, she had a positive history of multiple small BCCs of the face 6 years ago, which were completely excised with no recurrence. There was no history of any systemic illness or sexually transmitted disease or family history of skin cancer. She admits that she used to sunbathe during adolescence. On examination of the affected area, there was a single oval shape superficial ulcer of 30 mm in its greatest diameter with friable hemorrhagic tissue at the base and few telangiectasias (**Figure 1**). The rest of the body was free from any suspicious lesion and systemic examination was normal. Laboratory investigations revealed normal complete blood count; negative gram stain and culture from the lesion itself. Therefore, our most likely diagnosis was BCC of the right labia majus. Punch biopsy from the lesion revealed malignant basaloid cells arranged in nests with a peripheral palisading pattern invading the dermis, which was consistent with a superficial multicentric BCC. After discussing the case with the oncologist and gynecologist, we carried out complete surgical excision. Unfortunately, she lost to follow up as she moved back to her country of origin.

Discussion. Basal cell carcinoma is the most common malignancy in the white population,[1] while it is extremely uncommon in dark skinned races.[2] Specifically, vulvar BCC is rare accounting for less than 5% of all vulvar neoplasms,[3] and less than 1% of all BCCs.[4] The majority of BCCs occur on sun exposed

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Received on 12th June 2005. Accepted for publication in final form 12th September 2005.

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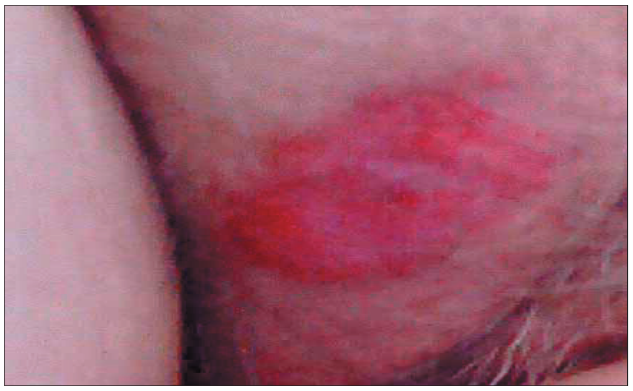

Figure 1 - Superficial non-healing ulcer on the right labia majus.

skin in patients with little endogenous melanin production. It can also occur in relatively protected body sites such as the axillae, the groin and buttocks, and in regions, which are entirely protected from the sun, like the vulva in which the labium majus is the most common site and most of the patients are post-menopausal.[2] Basal cell carcinoma is a multifactorial disease in which both environmental and host genetic factors are implicated in its pathogenesis.[4] Ultraviolet radiation is one of the main causative factors of BCC. In fact, childhood and adolescence may be critical periods for establishing adult risk for BCC as was clearly documented in our case.[2] Host factors related to development of BCC include: conditions associated with a risk of development of BCC, such as xeroderma pigmentosum, albinism, Bazex's syndrome, nevoid BCC syndrome, and nevus sebaceus of Jadassohn,[2] and chronic skin irritation such as chronic vulvovaginitis,[5] positive family history of BCC,[6] and immunosuppressive therapy.[7] Recently, possible tumorigenetic potential of the human papillomavirus (HPV) has been found such as HPV type 2, 16 and 20.[8,9]

Clinically, early BCCs are commonly small, translucent or pearly, raised lesions through which dilated vessels may be seen, while typical BCCs are asymptomatic indolent slowly progressing locally destructive ulcers with a very limited potential to metastasize. Also, vulvar BCC may have a nonspecific, innocuous appearance and maybe easily misdiagnosed as a benign inflammatory dermatosis, and depending on the precise anatomic location symptoms such as pruritus, irritation or dysuria may be present.[3,10] Vulvar BCC can be an aggressive neoplasm, and tissue involvement may be greater than is suggested at the skin surface, rare metastasis have been reported in 10 cases in the literature either through lymphatics to regional lymph nodes or hematogenous to other areas, which indicate that vulvar BCC can be more aggressive than typical BCC if not diagnosed early.[4] Treatment of BCC can be surgical or non-surgical. Surgical techniques include curettage, cautery, cryosurgery, Mohs' micrographic surgery and complete surgical excision,[2] which was the modality used in our patient. Other treatments include radiotherapy, topical fluorouracil 5%, topical imiquimod 5%, and intralesional interferon alpha.[2] Continued follow up of the patient is mandatory to check for local recurrence, any evidence of metastasis and any new primary lesions. In addition, education on sun avoidance and tumor detection may help to prevent further malignancies.

In summary, this is a case of vulvar BCC in a patient who was a skin type I with a positive history of early adolescence sun bathing and positive history of recurring BCC prior to this one, but despite of all those facts her vulvar BCC was misdiagnosed for 4 years. We treated her by complete surgical excision of the lesion. Therefore, BCC is an important consideration in the differential diagnosis of cutaneous vulvar lesions occurring in middle aged or elderly females with skin type I presenting with persistent chronic ulcer not responding to medical treatment.

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