# Basal cell carcinoma in unusual locations<sup>\*</sup> Carcinoma basocelular em localizações incomuns<sup>\*</sup>

Ane Beatriz Mautari Niwa<sup>1</sup>

Eugênio R. A. Pimentel<sup>2</sup>

**Abstract:** The authors present five patients who develop basal cell carcinomas in sites this tumor rarely occurs. The aim is to report the rare location of this frequent cutaneous malignancy and to briefly discuss the concept of unusual location of basal cell carcinoma. Keywords: Carcinoma, basal cell; Carcinoma, basal cell/diagnosis; Skin neoplasms

**Resumo**: Os autores apresentam cinco pacientes que desenvolveram carcinomas basocelulares em locais incomuns de ocorrência desse tumor. O objetivo é relatar a raridade topográfica da neoplasia cutânea e discutir o conceito de localização incomum para o carcinoma basocelular.

Palavras-chave: Carcinoma basocelular; Carcinoma basocelular/ diagnóstico; Neoplasias cutâneas

# INTRODUCTION

Basal cell carcinoma (BCC) is the most common cutaneous malignancy, representing around 65% of the epithelial tumors.<sup>1</sup> It is more prevalent after the fourth decade of life, and its peak incidence is at the sixth decade of life in both sexes. The risk factors for BCC include phenotypic characteristics of the patients, such as light skin and eye color; environmental risks, especially ultraviolet B radiation; previous exposure to arsenic; radiotherapy and genetic syndromes, such as xeroderma pigmentosum and basal cell nevus syndrome.<sup>2</sup>

BCC affects more often areas exposed to sunlight, but it may occur in covered areas and rare sites, hindering early diagnosis and treatment. Five cases of BCC in unusual sites are reported and the concept of unusual location of this malignancy is discussed.

# CASE REPORTS

# Case 1

A 72 year-old female, white patient from Sao Paulo presented a papulonodular purplish, ulcerated lesion with imprecise limits measuring about 1cm in diameter in the left groin for about three years (Figure 1). Histopathology showed multicentric basal cell carcinoma, and the patient underwent Mohs micrographic surgery.

### Case 2

A 56 year-old male, white patient from Sao Paulo presented a papulonodular sessile lesion with sharp limits in the right axilla for two years (Figure 2). Histopathology shows adenoid basal cell carcinoma. Tangential excision with curettage and electrocoagulation were performed for treatment.

Received on February 18, 2005.

Approved by the Consultive Council and accepted for publication on June 13, 2006.

<sup>\*</sup> Work done at Dermatology Service, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo (FMUSP) - São Paulo (SP), Brazil. Conflict of interests: None

<sup>&</sup>lt;sup>1</sup> Resident at the Dermatology Service, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo (FMUSP) - São Paulo (SP), Brazil.

<sup>&</sup>lt;sup>2</sup> PhD in Dermatology from the Faculdade de Medicina da Universidade de São Paulo (FMUSP) - São Paulo (SP), Brazil.

<sup>©2006</sup> by Anais Brasileiros de Dermatologia



FIGURE 1: Purplish, pearly lesion, covered by crust in the left groin



FIGURE 3: Ulcerated lesion with pearly borders in the first right foot interdigital area

#### Case 3

A 63 year-old female, mulatto patient from São Paulo presented an ulcerated papular lesion in the right foot interdigital area for two years (Figure 3). Histopathology showed basal cell carcinoma with abundant granulation tissue and the patient underwent Mohs micrographic surgery.

#### Case 4

An 82 year-old female, white patient from Sao Paulo, presented a hard papule with irregular border in the right axilla for three years (Figure 4) and a pedunculated pearly papule in the left pinna (Figure 5). Histopathology of the axillary lesion showed basal cell carcinoma with cystic degeneration, mild pleomorphism and fibrous stroma; that of the second lesion showed basal cell carcinoma of sclerodermiform pattern. Both lesions were treated by tangential excision with curettage and electrocoagulation.

#### Case 5

A 79 year-old male patient, white, from São Paulo, presented a pearly ulcerated nodule in the right crural region for two years (Figure 6). Histopathology showed solid basal cell carcinoma with a sclerodermiform component. The lesion was excised with a 3mm margin.

#### DISCUSSION

BCC is preferably located in the upper two thirds of the face, and the nose is affected in 25-30% of cases.<sup>3</sup>

The definition of unusual locations for BCC is controversial. The literature established arbitrary cri-



FIGURE 2: Erythematous, purplish papulonodular lesion in the right axilla



FIGURE 4: Erythematous, purplish papule with irregular border in the right axilla



FIGURE 5: Pedunculated pearly papule in the left pinna



FIGURE 6: Pearly nodule with ulcerated center in the right crural region

teria to classify a location as unusual, based on the percent incidence, on the previously considered unusual locations by the literature or on the relative tumor density ratio, a mathematical model which considers the ratio between the proportion of the tumor in a certain location and the proportion of the surface area of the same location.<sup>4</sup>

All these criteria are imprecise, because they are dependent on personal evaluation and the latter one, on establishing an arbitrary value to consider the tumor location as unnusual.<sup>5</sup>

Usually, there is agreement in considering certain locations of BCC as unusual, which include breasts, periungeal region, palms, soles, glutei and intertriginous areas like the axilla, groin and genitals.<sup>6</sup>

The factors determining an anatomical distribution pattern of BCC are not clear. Despite the fact that sun exposed sites are more likely to harbor this kind of tumor, up to one third of them occur in unexposed areas.<sup>7</sup> In addition, these tumors are rare in the forearms, hands and lower limbs, despite significant sun exposure. The occurrence of this malignancy on the lower limbs was three times greater in women than in men,<sup>8</sup> perhaps due to greater sun exposure.

Regarding possible associations of tumor location with histological subtypes, some studies showed that unexposed areas like the trunk and the limbs display predominantly superficial pattern, while those in sun exposed areas like the nose, neck and head, show mainly nodular pattern. The sclerodermiform pattern is not significantly associated with any body site.<sup>1</sup> The predominance of some subtypes in some body areas may be explained by local predisposing conditions, such as sun exposure, for example, although the sclerodermiform subtype does not predominate at any site, indicating that its appearance may be unrelated to external factors.

The aim of this report is to demonstrate some unusual locations of the most prevalent malignant skin tumor, so that dermatologists become aware of the possible diagnosis of basal cell carcinoma, even when in places where it is not usually found. It is believed that, irrespective of what method is used to define locations as unusual for BCC, those in unusual locations must be remembered and reported so that its pathogenesis, diagnostic criteria, therapeutic modalities and prognosis can be better understood. It is also important to state that the choice for Mohs micrographic surgery in case 1 was due to the fact that the lesion had imprecise limits and that the histopathological exam demonstrated multicentric basal cell carcinoma; in case 3, due to its ill-defined limits and location where tissue sparing is recommended, thus, with simpler wound closure. In cases 2 and 4, tangential excision with curettage and electrocoagulation were chosen because the lesions had defined limits and were small. In the last patient, the classical surgical approach was chosen, which is the most indicated for the treatment of basal cell carcinoma. 

# REFERENCES

- 1. Betti R, Inselvini E, Carducci M, Crosti C. Age and site prevalence of histologic subtypes of Basal cell carcinomas. Int J Dermatol. 1995;34:174-6.
- 2. Zuuren EV, Bastiaens MT, Posma AN, Bavinckt JNB. Basal cell carcinoma on the dorsum of the hand: report of 11 cases. J Eur Acad Dermatol Venereol. 2000;14:307-10.
- 3. Roenigk RK, Ratz JL, Bailin PL, Wheeland RG. Trends in the presentation and treatment of basal cell carcinomas. J Dermatol Surg Oncol. 1986;12:860-5.
- Betti R, Martino P, Moneghini L, Vergani R, Tolomio E, Crosti C. Basal cell carcinomas of the areola-nipple complex: case reports and review of the literature. J Dermatol. 2003;30:822-6.
- 5. Betti R, Bruscagin C, Inselvini E, Crosti C. Basal cell carcinomas of covered and unusual sites of the body. Int J Dermatol. 1997;36:503-5.
- 6. Etter L, Cook JL. Basal cell carcinoma of the umbilicus:

a case report and literature review. Cutis. 2003;71:123-6.

- 7. Bhagchandani L, Sanadi RE, Sattar S, Abbott RR. Basal cell carcinoma presenting as finger mass. A case report. Am J Clin Oncol. 1995;18:176-9.
- 8. Lynch FW, Seidman H, Hammond EC. Incidence of cutaneous cancer in Minnesota. Cancer. 1970;23:83-90.

MAILING ADDRESS: Ane Beatriz Mautari Niwa Rua Hilário Furlan, 107 - Brooklin Novo 04571-180 - São Paulo - SP - Brazil Tel.: +55 11 5505-1915 / +55 21 2117-0100 E-mail: aniwasp@terra.com.br