Basal Cell Carcinoma at an Unusual Location: Case Report

Abstract

Basal cell carcinoma is the most common form of skin cancer, with a cure rate of 100% with early diagnosis and surgical excision. Up to 80-85% of lesions appear on head and neck, consistent with the etiologic role of solar radiation. However, there are atypical localizations that require a higher index of suspicion to arrive at the correct diagnosis. We present a case of basal cell carcinoma of abdominal location, which resolved completely after surgical excision.

Keywords: Basal cell carcinoma; Skin neoplasms; Histopathology; Hyper pigmented tumor; melanocytes

Introduction

Basal cell carcinoma (BCC) is the most common form of skin cancer [1]. It presents local invasion, has low metastasizing potential and a cure rate of 100% after surgical excision. Common locations include head, scalp and neck, and are defined according to percentages of incidence, sites considered as such in the literature and the Relative Tumor Density index [2] (a mathematical ratio between the percentual area occupied by tumor in a particular anatomic region and the total skin surface area of that region). Thus, 80-85% of all BCC reported in medical literature have been located on the head and neck, 15% on the trunk and less than 2% in areas considered unusual, such as the abdomen, among others [3]. The main risk factor for the development of BCC is ultraviolet radiation, which explains its most common locations, however considering their appearance in non-sun-exposed areas, other contributing factors have been proposed.

Clinical Case

A 50-year-old male, with no significant personal or family history, presents with an asymptomatic verrucous lesion on the left flank that appeared a year and a half prior to consultation and began to grow in the past few months.

Upon physical examination, he presented a hyper pigmented tumor, of cerebri form aspect, of approximately 2 by 2cm, without any other alterations in the surrounding skin. The lesion was surgical excised and sent to histopathological study, which showed an infiltrative nodular basal cell carcinoma in the reticular dermis and a seborrheic keratosis. The margins where free and the PAS stain negative. Thus, the lesion corresponds, both clinically and histopathologically to a basal cell carcinoma of unusual location.

Commentary

The existence of BCCs in non-sun-exposed areas is rare and suggests the existence new, currently unknown, etiologic factors. In this manner, as previously mentioned, approximately 80-85% of BCC documented in medical literature are located on the head or neck, 15% on the trunk and less than 2% in areas considered unusual such as abdomen, genitals, perianal skin, lateral edge of the foot, axilla, superior or inferior lip.

In a review of 2126 cases of BCC in 1979, Rabbari & Mehregan [4] recorded the anatomical location of each lesion and reported that 82.92% were situated on the head or neck, 9.84% on the trunk, 6.76% on the limbs and 0.48% in the genitals or perianal region [4].

In another review of 873 cases of BCC in Argentina in 2010, Abeldaño et al. [5] established the proportion of BCCs in different anatomical regions [5]. The results showed that 65.4% occurred in the head or neck, of which 59.1% were located solely on the face. Less than 2% of lesions appeared in infrequent locations, such as abdomen, perianal region, groin, among others.

The main etiologic factor in the development of BCC is ultraviolet radiation, however, considering the occurrence of lesions in non-sun-exposed areas, the existence of other contributing factors has been proposed. These include: immunosuppression, Fitzpatrick skin type (phototype) I-II-III, previous injury of the anatomical site, ionizing radiation, genodermatoses, nevus sebaceous and arsenic exposure.

Even though BCC occurs mostly in sun exposed areas, it may appear in other sites, in which case one must have a high index of suspicion and not rule out the diagnosis solely based on the anatomical region. Taking into account the macroscopic characteristics of the lesion as well as the location, the differential diagnosis includes:

Verrucous nevus

A kind of epidermal nevus, that is generally present at birth or appears during the first year of life. Clinically, they appear as dark,
verrucous papules of one or two centimeters in diameter that may appear in any area of the body, usually on the trunk or extremities and tend to follow the lines of Blashko. Histologically, the verrucous nevi are characterized by hyperkeratosis, acanthosis, and papillomatosis.

**Seborrheic keratosis**

Benign cutaneous tumors are present as round or oval lesions with a verrucous surface in different shades of brown. They usually occur in great number and are located primarily on head, trunk and extremities; they may form a “Christmas tree” pattern on the back, following the lines of Blashko. Upon histological observation, one can appreciate a well-demarcated proliferation of keratinocytes, with characteristic small, keratin filled cysts.

**Melanoma**

It is a neoplasm of melanocytes and constitutes the most serious form of skin cancer. It occurs chiefly on the skin; however, it has been described to affect the choroid, oral mucosa, rectum and external genitals. Macroscopically it presents as a brownish black macule, with color variegation and irregular borders, that tends to grow over time. Occasionally it may present elevated areas and ulceration. Histopathology exhibits melanocytes in the stratum basale of the epidermis, with cells that invade upper layer of the epidermis, dermis and hypodermis. Melanoma may appear virtually in any area of the skin, both sun-exposed and non-sun-exposed regions, rendering a total body comprehensive skin examination and a high index of suspicion crucial.

We decided to present this case of a BCC of abdominal location considering that it is an unusual site of presentation. Although, as fore mentioned, BCCs occur primarily in sun exposed areas, such as head and neck. The absence of sun exposure does not exclude the diagnosis, for this reason, a thorough physical examination of the skin and a high index of suspicion are essential to diagnosing BCC of infrequent location.

**Acknowledgement**

None.

**Conflicts of Interest**

None declared.

**References**

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