Case Report

Neglected Basal Cell Carcinoma in Axilla

DOI: http://dx.doi.org/10.5915/44-1-9224

Gh Mohiuddin Wani, MD, Sheikh Manzoor Ahmad, MD,
Seema Qayoom, MD, Bilquees Khursheed, MBBS

Department of Dermatology, Venereology and Leprosy
Sheri-Kashmir Institute of Medical Sciences (SKIMS)
Srinager, Kashmir, India

Abstract

Basal cell carcinoma (BCC) is the most common skin cancer. The most significant risk factor is ultraviolet radiation and the most frequent site of BCC is head and neck, with around 75-80% occurring on face. BCC occurs infrequently in non-sun-exposed skin. The axilla is one of the least sun-exposed areas of our body, and as such BCC at this site is very rare. We present a case of large neglected axillary BCC in a 35- year-old male.

Key words: Basal cell carcinoma, Axilla

Introduction

Basal cell carcinoma (BCC) is a malignant tumor that rarely metastasizes. It is composed of cells resembling basal layer of epidermis and its appendages. BCC grows by direct extension and appears to require the surrounding stroma to support its growth. BCC occurs at the site of previous trauma such as thermal burn, scars, and ionizing radiation. Approximately 85% of BCCs appear on the head and neck region, areas receiving maximum sun exposure. Tumors also occur in sites protected from sun such as genitals and breast but the occurrence of tumor in axilla is extremely rare,[1] and, to our knowledge, only a few cases have been reported.

Unusual sites for BCC include the axilla, hand, areola or nipple, buttock, perineal and genital regions.[2]

Case Report

A 35-year-old Kashmiri rural male presented to us as a case of vegetative ulcerated growth in right axilla of 4 years duration. The growth was around 8×5 cm with round cerebriform vascular margins which bled on palpation as the tissue was friable. The floor of the ulcer was deep which showed accumulation of pus along with granulation tissue. The ulcer was tender and indurated. The regional lymph nodes were not enlarged (Figure 1). There was no previous personal history of skin cancer, and no other significant cutaneous or medical history was elicited. Notably, he had no history of trauma, chronic axillary inflammation, immune deficiency, or exposure to artificial ionizing radiation or arsenic. There was no family history of skin cancer or other skin disease. The patient did not seek early medical help because of his low social milieu, inadequate hygienic culture and a low level of knowledge about skin tumors.

Laboratory studies, including a complete blood cell count, blood chemistry and urinalysis, were within normal limits. His chest radiography, ultrasonography of abdomen and computed tomography (CT) of chest and abdomen were also normal. Sonography and CT scans were done to rule out systemic involvement in view of large, long standing and aggressive nature of growth. Mantoux test, VDRL and serology for human immunodeficiency virus

Figure 1. Basal cell carcinoma of the right axilla in a 35-year-old Indian male.

(1 & 2) were negative or nonreactive.

Pus collected at the base of ulcer showed inflammatory cells with gram-positive cocci on staining, and staph aureus on culture.

Histopathologic examination of the biopsy taken from the outgrowth at the edge showed normal epidermal lining with underlying dermis showing masses of basaloid cells with palisading at the periphery. The cells were arranged in intertwining strands and radially around islands of connective tissue, resulting in a tumor with a lace-like pattern, features consistent with adenoid variant of basal cell carcinoma (Figure 2). The patient was referred to the Plastic and Reconstructive Surgery Department at a tertiary center, where he underwent wide surgical excision of the tumor.

Discussion

BCC is the most common skin cancer derived from basaloid epithelia located in the follicular bulges, the anagen hair bulb, the follicular matrix cells and specific basaloid cells of the interfollicular epidermis.[3] BCC most commonly occurs in sun-exposed sites such as the face and neck (80-90%). Ten to fifteen percent of BCCs occur in non-sun-exposed sites such as the axilla, groin, buttocks, nipple, breast, penis and scrotum.[4-6] Among these, the occurrence of BCC in axilla is extremely rare.

BCC can be classified histologically into nodulocystic, mixed, infiltrative, superficial, micronodular, adenoid, metatypical, morpheaform and fibroepithelioma types.[7] Adenoid variant is rare compared to nodulocystic BCC, which is the most common type of BCC. Only a few such cases of adenoid variant have been reported to date.[8]

Ultraviolet radiation is considered the single most important risk factor for BCC. Additional risk factors include arsenic, coal tar derivatives, irradiation, scars, burn sites, chronic inflammation, ulcer and immune deficiency.[3] Genetic syndromes such as xeroderma pigmentosum and basal cell nevus syndrome are also associated with occurrence of BCC.[9] In our

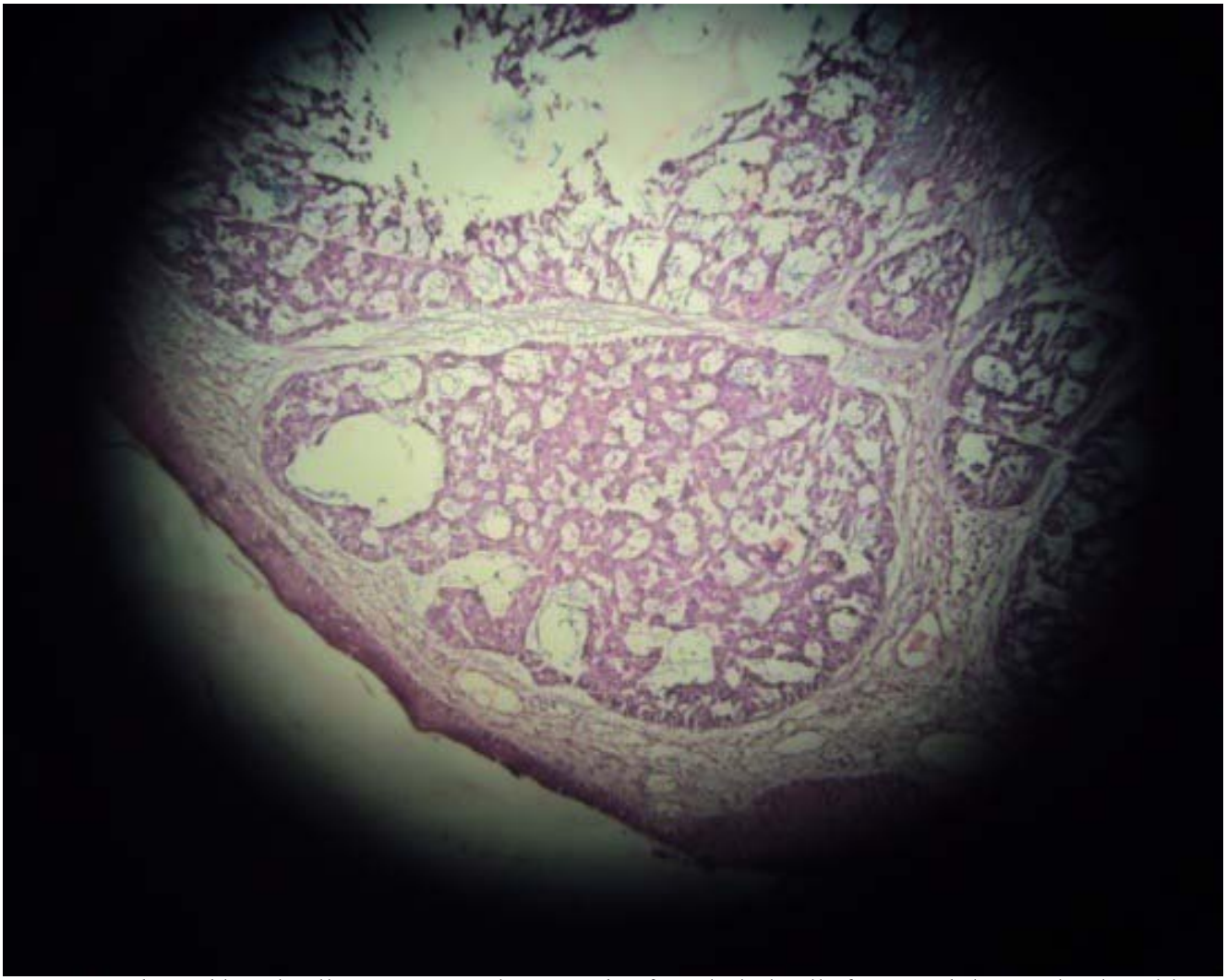

Figure 2. Adenoid basal cell carcinoma. The strands of epithelial cells form nodules, with a lace like pattern of cells within the nodules (H & E × 400).

case, no such risk factors or genodermatoses were found.

Skin cancer is a common disease that can be treated in a variety of ways including Mohs micrographic surgery, surgical excision, curettage and electrodesiccation, cryosurgery, radiotherapy, immunotherapy with interferon or fluorouracil, or photodynamic therapy depending on the tumor, the patient and the preferences of the physician.[10] Generally, BCC rarely metastasizes and is best treated by surgical excision if detected early. Wolf *et al* propose that larger tumors and more aggressive histologic types are best treated by surgical excision with a 2- to 4-mm safe margin.[11] The recurrence of BCC is usually associated with incomplete excision. When BCCs are completely excised, only 1% will recur, as compared with 33%-39% if they are incompletely excised.[12,13] In our patient, the growth was removed by wide surgical excision, and no evidence of recurrence has been found during the follow-up period of 6 months. Because the axilla is the site that is less likely to be monitored by the patient, there is possibility of delay in diagnosis and treatment and therefore extensive surgery may be required with increased risk of recurrence. The aim of this report is to highlight the occurrence of the most common skin malignancy at unusual sites so that its pathogenesis, diagnostic criteria, therapeutic modalities and prognosis can be better understood and to alert the physicians to the importance of early detection at unusual sites to prevent complications. Basal cell carcinoma, though rare in non-sun exposed areas, can occasionally be seen and a complete skin examination should be a part of a routine physical examination.

References

1. LeSueur BW, DiCaudo DJ, Connolly SM. Axillary basal cell carcinoma. Dermatol Surg. 2003;29:1105-08. http://doi.org/dndcxd
2. 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. http://doi.org/cnmfv5
3. Crowson AN. Basal cell carcinoma: biology, morphology and clinical implications. Mod Pathol. 2006;19:127-47. http://doi.org/dmgh3s
4. Pon K, Trauner MA, Rogers GS. Axillary basal cell carcinoma. Dermatol Surg. 2001;27:415-6. http://doi.org/fkngj6
5. Woo SH, Kim IH, Son SW. Axillary basal cell carcinoma. J Eur Acad Dermatol Venerol 2006;20:222-3. http://doi.org/bhvfcz
6. Gardner Es, Goldberg LH. Axillary basal cell carcinoma: literature survey and case report. Dermatol Surg. 2001;27:966-8. http://doi.org/dmgh3s
7. Song ES, Cho BK, Kim SY, et al. A clinicopathological study of basal cell carcinoma in Korean patients. Korean J Dermatol. 2003;38:762-71.
8. Kim SH, Ko WT, Suh MK, et al. A case of cell carcinoma. Annals of Dermatology. 2008;20:22-5.
9. Van Zuuren EJ, Bastiaens MT, Posma AN, et al. Basal cell carcinoma on the dorsum of hand: report of 11 cases. J Eur Acad Dermatol Venereol. 2000;14:307-10. http://doi.org/fr44sk
10. Rossi R, Campolmi P, Giomi B, et al. Giant exophytic basal cell carcinoma treated with radiotherapy. J Eur Acad Dermatol Venereol. 2002;16:374-6. http://doi.org/cnrmkj
11. Wolf DJ, Zitelli JA. Surgical margins for basal cell carcinoma. Arch Dermatol. 1987;123:340-4. http://doi.org/bjs9j8
12. Gooding CA, White G, Yatsuhashi M. Significance of marginal extension in excised basal-cell carcinoma. N Engl J Med. 1965;273:923-4. http://doi.org/cxbdrj
13. Pascal RR, Hobby LW, Lattes R, et al. Prognosis of “incompletely excised” versus “completely excised” basal cell carcinoma. Plast Reconstr Surg. 1968;41:328-32. http://doi.org/cvb59q