

## CASE REPORT

# Giant basal cell carcinoma of scalp: A neglected tumor and twenty-five years after diagnosis - case report and literature review

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## Abstract

Basal cell carcinoma (BCC) is the most common non-melanoma skin cancers, Giant variant of BCCs are a rare cutaneous neoplasms. The most important risk factors for skin cancers are ultraviolet (UV) exposure. We report the case of a 69-year-old men presented with pruritus, bleeding, focal ulcerated, large multinodular lesion symptoms and findings in the temporal region of the scalp. Grossly, there was an well-demarcated relatively smooth discrete mass measuring tumor of 5.5 cm × 4.5 cm. The histopathological diagnosis was Giant BCC. A review of the literature on Giant BCCs are rare variant in the skin of previously described cases. This tumor most frequently involves in the back, the face, and extremity. Risk factors that have been associated with skin in include smoking, prior radiation exposure, neglect and development of Giant BCCs. Clinical course of the disease are generally more aggressive. The treatment of choice is complete surgical excision, reconstruction and is curative.

## Key words

Basal cell carcinoma, Giant, Neglect, Scalp

## 1 Introduction

Nonmelanoma skin cancers are most prevalent cutaneous malignant neoplasm in the United States an estimated incidence two million cases per year <sup>[1]</sup>. Basal cell carcinoma (BCC) is the most common skin malignant tumors <sup>[2]</sup>. BCC is overwhelming majority of patients related to prolonged exposure to sun and relatively low doses <sup>[3]</sup>. Other proposed clinical parameters that may be associated with increased risk for the development of BCC include genetic factors (skin type, eye/hair colour) <sup>[4]</sup>, socioeconomic status <sup>[5]</sup> family history, freckle in childhood, outdoor work, immunosuppressed cases and previous radiation treatment for the malignancies <sup>[6]</sup>. BCC is more common older men than women <sup>[7]</sup> and mean age at presentation is 65 years <sup>[8]</sup>. Neoplasm occur most commonly on the face and are often single, can range in diameters from a few millimeters to several centimeters in diameter (range 2 mm to 15 mm) <sup>[2]</sup>. Less frequently, neck, trunk, extremities may be seen in other regions of the body <sup>[9]</sup>. Giant BCCs are a rare cutaneous neoplasms with by definition lesion size 5 cm more in greater diameter and about 0.5%-1% of all BCCs fall into the giant category <sup>[10]</sup>. It presents most often on the trunk, and is occasionally associated with metastases, mortality or neglect <sup>[9]</sup>.

## 2 Case presentation

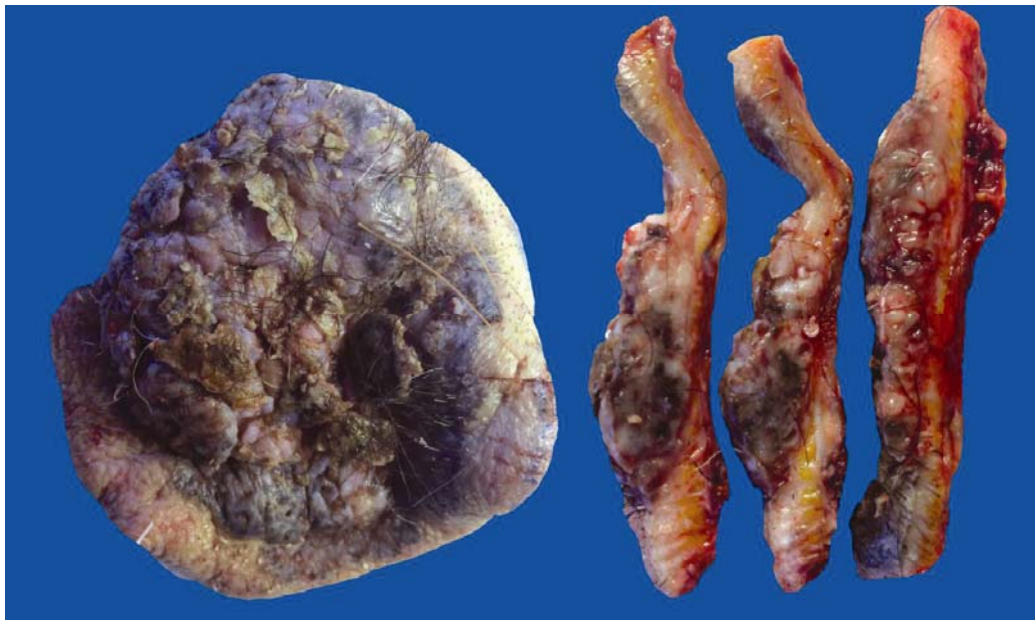
### 2.1 Clinical data and presentation

A 69-year-old man presented with pruritus, bleeding, focal ulcerated, large multinodular lesion symptoms and findings in the temporal region of the scalp to the department of plastic surgery of a state hospital. He noted that the lesion had a 25 years history and the tumour quickly growing in the last two month period. The clinical impression was that the lesion represented malignant tumor. The patient underwent the lesion scalp excised.

### 2.2 Histopathological findings

#### 2.2.1 Macroscopic appearance

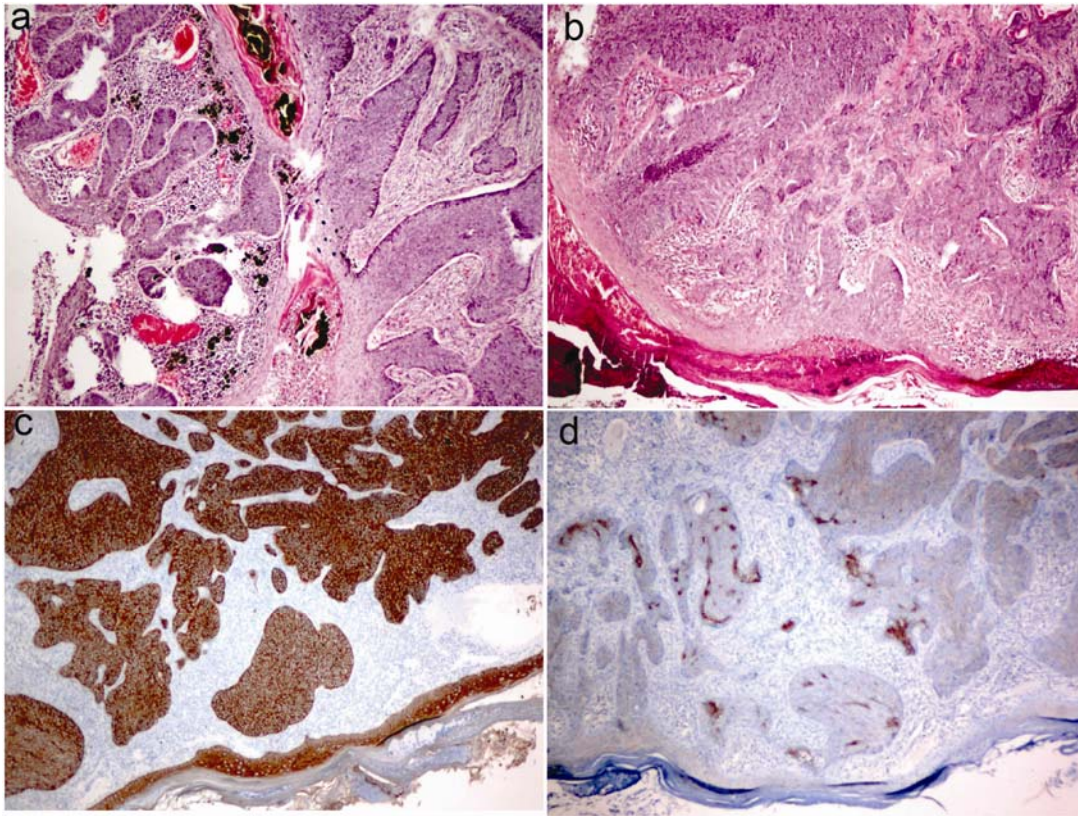
The specimen was collected from the scalp and consisted of a excised of specimen measuring 7 cm in length 6 cm in average diameter (0.5 mm-1 cm peripheral margins, 1cm deep margins) after fixation in 10% neutral buffered formalin. A serial section of the scalp skin specimen of patient did not reveal infiltrative tumors in the deep compartment. Gross findings of the present on this patient's scalp tissues showed focal ulcerated, large multinodular lesions features and gray-pink firm noninfiltration, and a well-localized, well-demarcated relatively smooth discrete mass measuring 5.5 cm × 4.5 cm. The cut surface section of the lesion had a gray or white, nodular and relatively regular border appearance (see Figure 1).



**Figure 1.** Basal cell carcinoma (BCC): Focal ulcerated, nodular lesions are present on this patient's scalp

#### 2.2.2 Microscopic features

Histologically, the tumor appeared to predominantly consist of lobules of basaloid cells with scant cytoplasm and a characteristic outer palisade of cells related with a surrounding loose fibrous and inflammatory stroma surrounding islands. The tumor had a prominent ulceration, apoptosis, relatively abundant mitoses, retraction artifact spaces, well circumscribed tumor lobules (nodular), melanin is present within in stromal macrophages (pigmented) and lymphocytes, plasma cells formed small aggregates of collagenized or dense fibrous stroma background. Necrosis, marked pleomorphism, squamous differentiation, mucin, perineural invasion and skull erosion were not present. The tumor cells were positive for CK5/6 and weakly positive Bcl-2 and negative for antibodies to p53 (see Figure 2).



**Figure 2.** (a, b) Basal cell carcinoma (BCC). Consists of ulcerative lesion a two population of a collagenized or dense fibrous stroma background surrounding islands reminiscent of the basal cell of the epidermis and hair follicle, both dendritic melanocytes or stromal macrophages. (c) CK5/6; the presence of is confirmed with strong and diffuse positive of CK5/6 immunohistochemistry. (d) Bcl-2; how patchy and weak staining with this antibody in the carcinoma.

### 3 Discussion

Giant BCCs of the skin are defined as a lesion measuring 5 cm larger in diameter<sup>[10]</sup>. Therefore, some authors have suggested that lesions diameter defined as 10 cm or more variant of giant<sup>[7, 9]</sup>. Giant BCCs are rare variant in the skin<sup>[11]</sup> and clinical behavior is generally more aggressive with local invasion and distant metastasis has been reported<sup>[12]</sup>. Manstein *et al.* reported Giant BCC with no observed distant metastasis<sup>[13]</sup>. Associated with an increased risk of metastasis included tumors larger than 5 cm in diameter that risk over 25%<sup>[14]</sup>. In most cases the etiopathogenesis of skin cancers appear priority was ultraviolet (UV) exposure<sup>[15]</sup>. Suggested risk factors in such cases include biologically aggressive subtype, a history of previous radiation and neglect. Smith *et al.* reported the prevalence of the BCC more than 1.0 cm in size is associated with higher in cigarette smoking<sup>[16]</sup>. In addition to related history alcoholism and deficiency of iron<sup>[17]</sup>. In our case there was previous history alcohol and cigarette smoked 10 cigarettes (1/2 pack) per day for 20 years. Archontaki *et al.* was observed most frequently located in the back (27.5%), the face (23.5%), extremity (13.7%), less frequently scalp or genital organ (5.9%)<sup>[10]</sup> (see the table). Most patients are old aged > 65 years (mean age at presentation, 67 years; range, 43-84 years). There is male predilection (2:1)<sup>[10]</sup>. Giant variant BCC infiltration bone, muscle and cartilage invasion is occasionally seen<sup>[14]</sup>. Morpheiform, metatypical, and infiltrative histological subtypes are associated with high recurrence rates<sup>[9]</sup>. In our case, the tumor appears limited to a epidermis and dermis with no observed spread to the adjacent tissues. Bcl-2 and is significantly higher expression having been documented in from 81.2% of cases. p53 protein is positive in 40.6% of cases<sup>[18]</sup>. Plump *et al.* reported BCC express CK 5/6 as well as positive in 28 of cases and cutaneous adnexal neoplasms is positive CK 5/6 in 97% of cases<sup>[19]</sup>. The pathological differential diagnosis of BCC includes trichoblastoma, merkel cell carcinoma, squamous cell carcinoma with basaloid features and microcystic adnexal

carcinoma <sup>[20]</sup>. Treatment of these lesions should be by widely complete excision with at least 1.0 cm margin and close follow-up. The treatment of choice is complete surgical excision, reconstruction and is curative <sup>[21]</sup>. In addition, Rossi *et al.* reported favorable with adequate surgical treatment and radiotherapy <sup>[22]</sup>.

**Table.** Age, gender, anatomical distribution and defined in years of giant BCC <sup>[23-26]</sup>

Author/References	Year	Age (years)	Gender	Site
Fresini A	2007	72	Men	Back
RiegerUM	2009	67	Men	Left clavicle
Bogdanić B	2009	71	Women	Back
Sakalauskaite M	2009	69	Women	Occipital region
Handjani F	2010	65	Men	Leg
Heo YS	2011	53	Men	Scalp
Larsen AK	2014	48	Men	Scalp

## Conflict of interests

The author declares that he has no conflict of interests.

## Ethical approval

Written informed consent was obtained from the patient for publication of this case report and its accompanying images.

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