

Case and Review

# Giant Basal Cell Carcinomas Arising on the Bilateral Forearms of a Patient: A Case Report and Review of Nonsurgical Treatment Options

Sarah Shangraw<sup>a</sup> Rivka C. Stone<sup>b</sup> Jeong Hee Cho-Vega<sup>c</sup>  
Robert S. Kirsner<sup>b</sup>

<sup>a</sup>Oregon Health and Science University School of Medicine, Portland, OR, USA;

<sup>b</sup>Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL, USA; <sup>c</sup>Dermatopathology Service, Department of Pathology, Sylvester Comprehensive Cancer Center and University of Miami Miller School of Medicine, Miami, FL, USA

## Keywords

Giant basal cell carcinoma · Nonsurgical treatment · Medical therapy

## Abstract

Giant basal cell carcinomas (GBCCs) are large basal cell carcinomas (BCCs; <5 cm) with a greater propensity to invade and metastasize than standard BCCs. The presence of 2 GBCCs in a single individual is rare. We present the case of a 71-year-old Caucasian male with bilateral GBCCs on the dorsal forearms, measuring 130 cm<sup>2</sup> and 24 cm<sup>2</sup>, respectively, that developed over a 21-year period. Over this period, the patient treated the tumors with herbal remedies. Histologic evaluation showed a conventional nodular BCC for both tumors. Computed tomography and magnetic resonance imaging revealed a T4N0M0 stage for the larger lesion. Surgical excision and grafting and reconstruction were offered, but he declined. This case highlights a shared belief in holistic treatments and rejection of Western medical inter-

ventions that are common among many patients with GBCC. Studies reporting nonsurgical treatments for GBCCs, including radiotherapy, vismodegib, topical imiquimod, and acitretin are reviewed.

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## Introduction

Giant basal cell carcinomas (GBCCs) measuring more than 5 cm constitute less than 1% of all basal cell carcinomas (BCCs) [1, 2]. Due to their large size and tendency to infiltrate neighboring muscle, nerve, and bone, these lesions are often disfiguring and disabling. The presence of 2 coexisting GBCCs in the same individual is rare, with few reported cases [3–6]. Here we present a patient with 2 GBCCs located symmetrically on the bilateral forearms.

## Case Report

A 71-year-old Caucasian man presented to the emergency room with 2 large tumors symmetrically distributed on his dorsal forearms. The lesions had been growing slowly for 21 years. The patient did not seek medical treatment; instead he opted for home herbal remedies and salves. He also reported gouging out portions to limit tumor growth. The large bleeding lesions were noted when he underwent a routine medical assessment, and he was referred to the hospital for evaluation.

His past medical history was significant for mild dementia. He denied prior exposure to radiation, immunosuppressive medications, and carcinogens. Physical examination was notable for an alert, oriented, cachectic Caucasian man. On the left dorsal forearm there was a 10 × 13 × 4.5 cm exophytic nodular tumor on an ulcerated base. On the right dorsal forearm was a 6 × 4 cm ulcerated plaque with rolled borders. Both tumors were friable with hemorrhagic exudate and sclerotic perilesional skin (Fig. 1). No lymphadenopathy was appreciated. Biopsies of both lesions were diagnostic for nodular BCC (Fig. 2). Magnetic resonance imaging of the left forearm tumor revealed local muscle, nerve, and periosteal invasion. Computed tomography scans of the chest, abdomen, and pelvis showed no evidence of nodal involvement or metastatic disease. Superficial wound cultures of both tumors grew *Pseudomonas aeruginosa* that was treated with intravenous cefepime.

Orthopedic and plastic surgery consultants recommended wide local excision of both tumors followed by skin grafting and reconstruction. The patient consented to removal of the lesions but refused subsequent grafts, stating that they were contrary to his beliefs of natural healing. A psychiatry consult was obtained to assess the patient's ability to make medical decisions, and he was found to have capacity. He was discharged in a stable condition to a rehabilitation facility, with outpatient follow-up arranged to discuss nonsurgical treatment options.

## Discussion

While BCCs are generally small and slow growing, GBCCs are rare, aggressive tumors that often recur and are more likely to metastasize [7]. Though many risk factors for GBCCs are similar to those for BCCs (e.g., Caucasian race, prior history of BCC, and exposure to ultraviolet radiation), a distinct feature of GBCC is a patient's neglect of the lesion and a resulting delay in effective intervention [3, 5, 8, 9].

A common trend among cases of GBCC is patients' distrust of contemporary Western medicine [3, 5, 8]. Previous case reports of multiple GBCCs also described patients with established beliefs in holistic or religious treatments [3, 5, 8]. In some instances, patients that experienced BCC recurrence after surgical excision were frustrated by the outcome and rejected all further care, leading to progression and death from associated complications [10].

Given the markedly increased risk of metastases and death from GBCC, it is particularly important to recognize and openly address patient concerns regarding treatment options. Establishing a strong physician-patient therapeutic alliance is a critical step in identifying and implementing interventions.

While excision remains the widely acknowledged gold standard of treatment for GBCC [1, 2, 7], Table 1 summarizes various alternative therapies that have been reported in the medical literature and can be discussed with patients declining first-line surgical modalities [11–15]. Most of these medical therapies are affordable and easily dosed and have an acceptable side effect profile. Treatment involving radiation has historically been reserved for poor surgical candidates [11–13]. Vismodegib is a targeted chemotherapy agent that has been shown to halt tumor growth, but it has many side effects [9]. Finally, imiquimod has been used alone or in combination with cryosurgery or acitretin to successfully shrink GBCCs by an unknown mechanism [6, 14, 15]. In each instance, treating physicians were able to negotiate treatment plans that were consistent with patient beliefs, resulting in compliance and tumor regression.

In conclusion, GBCCs are rare, destructive tumors that are more likely to develop in patients with strong beliefs in complementary and holistic medicine. A discussion and implementation of less invasive alternative therapeutic modalities can be integral to patient survival and improved clinical outcomes.

## Statement of Ethics

We received verbal consent from the patient to use his data and photographs for publication.

## Disclosure Statement

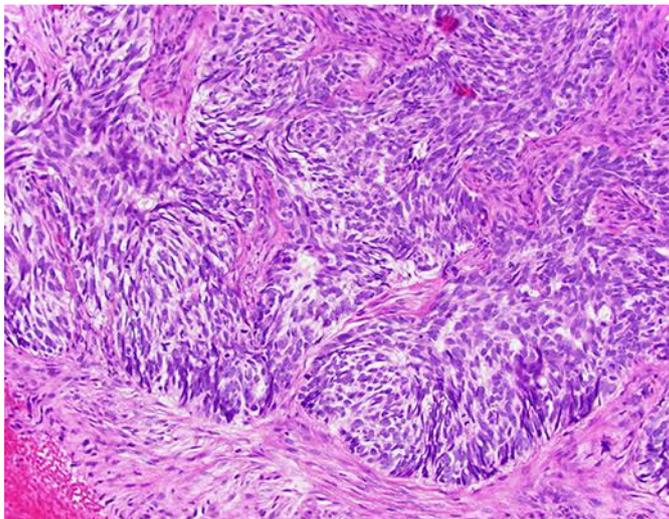
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**Fig. 1.** Fungating, friable tumors on the bilateral forearms.



**Fig. 2.** Representative H&E stain of biopsies from the right forearm tumor, demonstrating nodular, pseudo-palisading basaloid cells in an infiltrative pattern. A stromal reaction was noted in both lesions.

**Table 1.** Successful nonsurgical options for unresectable nonmetastatic GBCCs

Treatment	Patient age/sex, years	Reason for nonsurgical intervention	Location and size of tumor, cm	Stage	Neo-adjutant	Treatment details	Outcome	Side effects
Intensity-modulated radiation therapy [11]	59/M	Poor surgical candidate with COPD, CAD, epilepsy, HTN	Upper back 10 × 10	T4N0M0	No	12 MeV 60 Gy total dose, then 9 MeV 20 Gy over 3 months	Lesion shrunk to 2–3 cm; minimal involvement of deeper soft tissues; no evidence of recurrence at 5 months	No significant side effects
Superficial roentgen radiotherapy [12]	66/M	Refusal of surgical intervention	Shoulder 10 × 7	T4N1M0	No	160 kV 150 Gy total dose over 10 treatments	No recurrence at 1 year and satisfying aesthetic results	No significant side effects
Chemoradiotherapy [13]	62/F	Refusal of surgical intervention	Face 5.5 × 4.5	T4N1M1	No	6,000 cGy total dose over 3 weeks plus oral cisplatin and 5-fluorouracil	No recurrence at 6 months	NS
Vismodegib [9]	59/M	Poor surgical candidate with COPD, CAD, epilepsy, HTN	Upper back 10 × 10	T4N0M0	Yes	Continuous for 11 years	Arrested growth of tumor	Dysgeusia, diarrhea, anorexia
Imiquimod [14]	51/M	Unfavorable location	Cheek 6 × 8	T3N0M0	No	Applied every other day for 8–12 h over 12 weeks	No recurrence at 3 years	Local irritation, inflammation, edema after 1 week; resolved with prednisone burst and decreased application to every third day
Imiquimod-cryosurgery combination [15]	54/M	Patient reluctance, and affected area too large for flap	Frontal scalp 6 × 8	T3N0M0	No	2–3 freeze-thaw cycles followed by 5% imiquimod cream after 4 days repeated monthly for 4 cycles	No recurrence at 9 months	NS
Acitretin-imiquimod combination [6]	68/F	Refusal of surgical intervention	Chest 18 × 11	NS	Yes	Daily 25 mg/day oral acitretin and 5% imiquimod cream for 6 months; eventual surgery and radiotherapy (200 cGy in 30 doses), respectively	No recurrence at 8 years	Malaise; resolved with decreased imiquimod dose
	63/M	Unfavorable location and refusal of surgical intervention	Cheek 10 × 7	NS	Yes		No recurrence at 2 years	Local inflammation

CAD, coronary artery disease; COPD, chronic obstructive pulmonary disease; HTN, hypertension; NS, not specified.