**Bilateral Lymphatic Spread of Metastatic Basal Cell Carcinoma**

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**Summary:** Herein, we report a case of a patient with an abnormal skin lesion that remained unchecked by medical professionals for approximately 20 years. Upon physical examination in the emergency department for a fractured hip, an infiltrative mass was incidentally discovered. The neoplasm was noted to have progressed from an eraser-sized mass to a 3.5-cm invasive lesion. Initial surgical intervention was believed to have been successful in removal, as margins were clear with the exception of 1 indeterminate segment. However, subsequent 1-year follow-up revealed recurrence of the disease with bilateral axillary node and deep muscle involvement. This prompted a more extensive surgical approach complemented with radiation therapy. The patient had remained disease-free for a year. *(Plast Reconstr Surg Glob Open 2016;4:e1182; doi: 10.1097/GOX.0000000000001182; Published online 23 December 2016.)*

Basal cell carcinoma (BCC) is both the most common skin cancer and primary malignancy in humans.\(^1\)\(^2\) Nearly 3 million patients are diagnosed annually in the United States alone,\(^3\)\(^4\) and the lifetime incidence has been reported to be as high as 30%.\(^3\) BCC occurs mostly in sun-exposed areas of the face and neck, 80% to 85% of cases, but it can also present on the trunk, 10%, and non–sun-exposed regions of the body such as the genitals, <1%.\(^6\)\(^7\) It has a low metastatic potential with a reported rate of 0.0028% to 0.55%,\(^1\)\(^2\)\(^4\) but extensive local spread can be both disfiguring and disabling. When it does metastasize, it can do so hematogenously or lymphatically, with the lungs being the most common site of metastasis,\(^1\)\(^4\) and lymphatic spread is almost always unilateral. The standard treatment for BCC is surgical intervention, which results in a 5-year survival rate of 99% and 95% for uncomplicated primary and recurrent BCC, respectively.\(^8\) In this article, we describe a rare case of bilateral lymphatic spread of BCC from a primary malignancy of the trunk treated with surgical excision and radiotherapy.

**CASE PRESENTATION**

A 67-year-old white man first presented to the emergency department after a ground-level fall resulted in a left hip fracture. During workup of his fracture, a 3.5- × 3.5-cm fixed pearly lesion was discovered on the patient’s midline upper back (Fig. 1A). Per patient’s report, the lesion had been growing for approximately 20 years. Punch biopsies revealed carcinoma histologically consistent with BCC, nodular and infiltrating subtype.

The patient had several risk factors for the development of skin cancer including 17-year outdoor work history, 25–pack-year smoking, and daily alcohol use. He had unspecified cancer history in both his father and sister, but aside from the recent injury was otherwise healthy. The decision was made to surgically excise the patient’s BCC. A 9.2- × 6.5-cm specimen was excised (Fig. 1B), and pathology confirmed the BCC to be consistent with the prior punch biopsy of nodular and infiltrating BCC. The tumor extended into the underlying trapezius muscle. Frozen section indicated margins were negative, and the wound was closed with bilateral VY advancement flaps and skin grafting. Permanent sections, however, showed 1 focus of deep residual BCC, which was not present on the original frozen section. The decision was made to observe the area for any signs of recurrent disease, and 1 month after surgery, the patient was healing nicely even despite the challenge of the area to close (Fig. 2).

One year later, the patient complained of a new, persistent lump in his right axilla for several weeks’ duration. On examination, he had a hard, mobile, 2.5- × 2.0-cm lump in his right posterior axilla and a 1.5- × 1.5-cm lump along the inferior portion of the prior resection scar (Fig. 3). Both lesions displayed overlying skin color changes, and biopsies from both the axilla and scar were consistent with recurrent/metastatic BCC. A follow-up positron emission

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tomography–computed tomography (CT) revealed avidity within the previous resection zone and hypermetabolic foci in bilateral axillae. Core needle biopsy from the left was also consistent with metastatic, nodular and infiltrating BCC. The primary lesion was excised with negative margins, and bilateral axillary dissection revealed 6/25 and 7/17 positive nodes in the left and right, respectively. The patient recovered well from his operations (Fig. 4), and adjuvant 5000 cGy of radiation in 25 fractions to the back and bilateral axillae was administered. A posttreatment CT revealed no indication of residual disease. The patient remained disease-free as per 3-month repeat CT scans until his death a year later from respiratory failure secondary to concomitant antibiotic resistant pneumonia and bilateral pulmonary emboli.

**DISCUSSION**

BCC is the most common primary malignancy in humans with an incidence reported in the millions annually.1–3 The etiology of BCC is unknown, but multiple risk factors have been identified with sun exposure constituting the principle injury that predisposes individuals to BCC. Demographic data show that the vast majority of BCC occurs in fair-skinned individuals6 with 86% of metastatic BCC occurring in white,1 and only 5 cases in the literature before 1991 had been report in African American individuals.4

Generally, BCC has an indolent course with very low rates of metastasis.1,2,4 A recent review by McCusker et al3 showed that greater length of time till treatment and lesion location (lesions difficult to visualize such as scalp, back, or groin) had higher rates of metastasis. Large primarily lesions also have greater metastatic potential. Lesions 5 and 10 cm have metastatic rates of 25% and 50%, respectively.6,9 Finally, the depth of invasion10 and the
tumor located on the posterior trunk. Although the malignancy recurred after initial surgical intervention, it was amendable to re-excision and responded well to adjuvant radiation. The patient had significant risk factors for skin cancer, and fair skin, negligence, extensive sun exposure, large size (~10 cm), infiltrative histologic subtype, and midline location were likely contributors to his unique extensive bilateral metastasis. Infiltrative BCCs are rare, presenting a problem to perform accurate analyses to demonstrate whether this histologic subtype is more aggressive. However, accumulating data in accordance with our experience suggests that patients with infiltrative BCC should be examined and followed more closely for metastasis and recurrence. Although metastasis rates are extremely low in BCC, this case highlights the importance of a thorough initial workup to include things such as simple physical examinations, which, if done properly, may help identify local spread and metastasis, that is, axillary involvement, alter treatment courses, and help improve survival outcomes for BCC patients. These simple measures should also be implemented in regular follow-ups to effectively monitor healing of advanced skin reconstructions and identify recurrences earlier.

CONCLUSIONS

In conclusion, we describe a unique case of bilateral regional metastatic spread of a BCC, a finding not previously described in the literature from a primary histologic subtype\(^1\) also correlate to metastatic rates. Morpheaform, metatypical (basosquamous carcinoma), infiltrative, and adenocystic variants of BCC are believed to be more aggressive and locally invasive,\(^7\) although this is still debated.\(^3,4,9,10\)

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CONSENT

Written informed consent was obtained from the patient before his passing for the publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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