



A Slow Growing Tumor of the Ankle: An Atypical Case of Basal Cell Carcinoma of the Lower Extremity

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STATEMENT OF PURPOSE

The purpose of this study is to present the case of an atypical presentation of BCC. We provide the podiatric surgeon with the knowledge to identify these atypical findings, as well as detail how to treat these lesions and appropriate referral protocol.

LITERATURE REVIEW

Basal cell carcinoma is the most common skin cancer and presents predominantly on sun-exposed areas of the head, neck, and trunk, however occasionally it is found on the lower extremity. 80% of cases occur in the head and neck region, followed by 15% on the trunk, and the remainder occur on upper and lower extremities(1). Generally, this skin cancer is slow growing and primarily locally destructive; however, if BCC is neglected it has the potential to metastasize. Risk factors associated with development of aggressive BCC include neglected tumor of more than 1 year, greater than 1cm in size, specific histological features, location on the central face, history of radiation therapy, immunosuppression, and heritable disease (4).

Several treatment options exist for BCC. Surgical treatment options include curettage, cautery, cryosurgery, and excision including Mohs surgery. Histological examination is not possible with cautery and cryosurgery and not enough tissue is present after curettage to examine margins (3). Excision should be used if BCC is large, recurrent or of a high risk subtype or location. Multiple investigators found that incompletely excised BCC recurs at a rate of 30-41% after a 2-5 year follow up (2).

Classifying the lesion histologically aids in treatment. Aggressive lesions such as micronodular, morpheiform, or mixed subtypes are recommended to be treated with surgical excision compared to the less aggressive subtypes of nodular and superficial. Primary lesions on the legs have a five year cure rate of 99% with surgical excision (9).

Through a meta-analysis study, Marcil and Stern found that someone who was diagnosed with BCC has a 10-fold increase of developing another BCC compared to the general population (6). This represents the importance of patient education and screening for future lesions.

CASE STUDY

A 75-year-old male of Middle-Eastern descent presented with a slow growing, non-painful soft tissue mass of the lateral ankle which had been present for over 30 years. Patient spent the majority of his life as a farmer. On physical exam, the mass was noted to be 2.5 cm x 2.5 cm, non-mobile, firm, and did not transilluminate. Multiple telangiectasias were noted within the mass (Figure 1). After many years, he finally was amenable to have the lesion surgically excised for further evaluation. A linear incision was made over the mass and it was incisionally biopsied and sent to pathology as a frozen specimen. Pathology reported nodular basal cell carcinoma of all margins. Due to the depth, the clinical decision was made to perform an excisional biopsy with attempt to obtain clear margins. The mass was undermined to the level of the fascia and isolated. The mass did not invade the peroneal fascia but it was noted to be well-adhered to the skin, indurated, lobulated, and had distinct coloration from surrounding soft tissue. Multiple vessels were noted extending into the soft tissue mass (Figure 3). The mass in total measured 2.5 cm x 2.5 cm x 3.0 cm with 4 quadrants marked for orientation. The specimen was then sent to pathology and the surgical site was closed anatomically. All margins returned positive for nodular with focal morpheiform basal cell carcinoma (Figure 4). The patient was notified immediately of the results and was advised to follow up with an oncologist. 1 year follow-up MRI revealed no recurrence.



Figure 1. Clinical finding of soft tissue mass to lateral left ankle.



Figure 2. T1 weighted MRI showing soft tissue mass left ankle



Figure 3. Intraoperative soft tissue mass

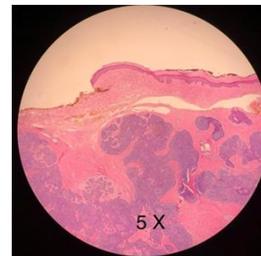


Figure 4. Basal cell carcinoma: Nodular type with focal morpheiform type

ANALYSIS & DISCUSSION

In the case presented the patient neglected the lesion for 30 years. Patient neglect is noted in one third of cases of giant BCC (5). In a report of 5 cases of metastatic BCC it was revealed that the median time to metastasis was 9 years (8), far fewer than the 30 years of neglect noted in this case. For this reason, the patient was urged to follow up with an oncologist regarding the finding of BCC. In rare cases of metastatic BCC, prognosis is poor with a mean survival of 8 months to 3.6 years (6).

Biopsy is the most accurate diagnostic procedure for soft tissue masses (10). Soft tissue masses that are biologically active, growing, or greater than 3cm are indications to have biopsy performed (10). By prospectively studying 57 patients with soft tissue masses, Kasraeian et al compared the diagnostic accuracy of fine needle aspiration, core biopsy, and incisional biopsy. The study found open surgical biopsy had a 100% diagnostic accuracy when determining both malignancy and exact diagnosis as compared to FNA and core biopsy which correctly diagnose malignancy 75.4% and 80.7% of the time, respectively, and correctly provide exact diagnosis 33.3% and 45.6% of time, respectively (11).

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FINANCIAL DISCLOSURE: NONE