

## VERRUCOID CARCINOMA: A Case Presentation

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A 51-year-old white male was admitted to the hospital with a malodorous lesion on the bottom of his left foot (Figs. 1A, 1B). The lesion was present for the past 20 years, gradually enlarging over this period of time. There was a history of multiple surgeries on the lesion in the past, but the patient denies that any bone was removed during any of these surgeries. The lesion was not symptomatic.

A 7 x 8 cm pedunculated lesion was noted plantarily. The lesion extended dorsally as a 2x2 cm lesion. Interdigital extensions were seen as well. The lesion appeared to be boggy with sinus tracts, however, there was no surrounding inflammation or purulence noted. Upon debridement, bleeding occurred from the pedunculated projections. The whole lesion was sharply outlined, but irregularly shaped.

Radiographs demonstrated an absence of the third metatarsal head, with contraction of the toes. Soft tissue swelling was noted, but the x-rays were otherwise unremarkable (Figs. 2A, 2B). The differential diagnosis included: plantar verruca, deep mycosis, pyogenic granuloma, amelanotic melanoma, basal cell carcinoma, and verrucoid carcinoma.

A punch biopsy was performed under local anesthesia where a fibrous base was noted to be present. Excochleation of a portion of the lesion was difficult, as there was absence of a well-defined basement membrane.

The pathology results were as follows: the surface was markedly papillomatous and invaginated by dense partially parakeratotic horns, and numerous deep crypts were filled with this horny material. Well-differentiated pale-staining keratinocytes from the epidermis extended into the subcutaneous tissue, which contained well-filled cysts. Well-oriented rete ridges were compressed and impinged upon the dermal collagen. The margins were sharply circumscribed, however, the invasive growth pattern contained well-differentiated prickles cells. Mitotic cells were present with



Figure 1A Plantar clinical presentation of lesion.



Figure 1B. Dorsal presentation of the lesion.



Figure 2A. Oblique radiograph of the left foot. Note the absence of the 3rd metatarsal head and digit.



Figure 2B. Lateral radiograph

atypical nuclear material, but individual cell keratinization was absent. A moderate inflammatory infiltrate was also noted beneath the tumor mass.

The histopathologic diagnosis was determined to be verrucous carcinoma, or epithelioma cuniculatum, which is a variety of squamous cell carcinoma peculiar to the foot. The key features include a sharply outlined, malodorous, papillomatous lesion, which invades the subcutaneous area. These lesions are long-standing and generally resistant to local therapy. A small punch biopsy may not be adequate to confirm the diagnosis.

Definitive treatment options include wide and deep excision of the lesion, with 2.0 cm margins in all directions. The resultant defect can often be covered with a split-thickness skin graft. Lesions

treated in this manner on the foot require at least three weeks of non-weight bearing. Radiation and/or chemotherapy is contraindicated in the treatment of verrucoid carcinoma, as anaplastic transformation and metastasis can occur (rare). Amputation is another option, and may be the most appropriate therapy when a distal appendage is involved.

Local recurrence is a not uncommon occurrence, especially following excochleation. Although radiation and chemotherapy are usually contraindicated, radiation therapy was attempted in this particular patient at the suggestion of the oncologist. The left third digit subsequently developed dry gangrene (Fig. 3), and since there was inadequate skin to cover a transmetatarsal amputation, a below-knee amputation was performed.



Figure 3. Gangrene of the left third digit developed after radiation therapy reduced the lesion.

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