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ORIGINAL COMMUNICATION

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O R I G I N A L C O M M U N I C A T I O N

Marjolin's Ulcer of a Primarily Grafted Burn

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Keywords: Squamous Cell Cancer ■ Marjolin's Ucler ■ Burn Scor*J Natl Med Assoc.* 2013; 105: 192-195.**Author Affiliations:** Morehouse School of Medicine, Atlanta, GA (Dr Beech); Meharry Medical College, Nashville, TN (Drs Johnson, Brookins, Ternovits, and Burnette)**Correspondence:** Paul Johnson, Department of Surgery, Morehouse School of Medicine, Atlanta, GA 30310; Sharica Brookins, Department of Surgery, Morehouse School of Medicine, Atlanta, GA 30310; Derrick Beech, Department of Surgery, Morehouse School of Medicine, Atlanta, GA 30310; Craig Ternovits, Department of Surgery, Meharry Medical College, Nashville, TN 37208; Robert Burnette, Department of Pathology, Meharry Medical College, Nashville, TN 37208.**BACKGROUND:****M**arjolin's ulcer, first described in 1828 by Jean-Nicolas Marjolin, denotes

and measured 23 cm x 14 cm with a central ulcer that measured to be 15 cm x 9.5 cm extending from his lateral left thigh to the posterolateral aspect of his left knee. The mass appeared to have a yellow, adipose-like center surrounded by pink, verrucous flesh which was bordered by black necrotic, fibrosed tissue (Figure 1). Skin contractures from the previous skin graft were visible outside of the perimeter of the chronic ulcer. The physical examination noted extrusion of serous, pungent fluid with light compression, absence of lymphadenopathy, peripheral pulses and sensation intact, and normal vitals. The patient had no additional risk factors for skin carcinoma.

Diagnostic evaluation began with a Roentogram in anteroposterior and lateral views of his left femur, tibia and fibula, which showed edematous soft tissue in the popliteal area but no recent fractures or dislocations. Additional imaging included

Involutional carcinomatous degeneration arising from burn wounds, chronic ulcers, posttraumatic scars, and other chronic inflammatory processes. Early skin grafting of full-thickness burns is widely accepted as prevention of future malignant transformation; however, on rare occasions, said degeneration may present from primarily grafted burn injuries. The following case describes squamous cell carcinoma (SCC) of the left lower extremity arising 49 years after split-thickness skin graft of a full-thickness burn with a superimposed bacterial infection.

CASE REPORT:

A 57-year-old man presented with a history of a thermal burn to his left leg from a house fire 49 years ago. Following this incident, the patient received a skin graft. The patient also has a past medical history significant for left leg fracture. He presented to the ER with complaints of a chronic left leg wound which became malodorous and pruritic for 2 weeks. The patient initially noticed a non-healing ulcer of the left leg 1 year ago that has since increased in size and changed in texture. The painless, fungating lesion with irregular margins had several bullous eroded nodules,

Magnetic Resonance Imaging (MRI) that revealed mass-like skin or soft tissue thickening within the posterolateral soft tissue above and below the knee joint without extension into the subcutaneous and underlying musculature. Following the MRI, the patient underwent an incisional biopsy that presented as marked hyperkeratosis and acanthosis of the skin, strands of squamous epithelium with abortive keratin pearls at the base, and chronic inflammatory infiltrate and hemorrhage of the stroma (Figure 2). The squamous cells were uniform throughout with round to ovoid nuclei with abundant pink cytoplasm, thus the pre-operative diagnosis was well-differentiated, low-grade invasive squamous cell carcinoma. Specimens of the superficial left leg wound were cultured and expressed moderate to heavy growth for *Morganella morganii*, *Escherichia coli*, *Enterococcus avium* and *Pseudomonas aeruginosa*; and light growth for *Proteus vulgaris*. Hematologic studies revealed that the patient was immunocompetent and devoid of leukocytosis.

For treatment, a wide local excision of the mass with 1 cm margins was performed under general anesthesia (Figure 3). Post-operative pathology