ABSTRACT

Marjolin’s ulcer is a rare and aggressive cutaneous malignancy arising from previously traumatized skin, most commonly at the site of prior burns. We present a rare case of Marjolin’s ulceration secondary to a non-burn history of trauma; the patient was involved in a motorcycle accident 20 years ago. Over the past 14 months, the patient has refused to acknowledge the severity of his current state. He has refused the standard of care even today and has opted for local wound care only. The combination of the uncommon etiology and continued lack of patient compliance sets this case presentation apart from the rest of the Marjolin’s ulcer literature.

INTRODUCTION

Marjolin’s ulcers are a rare form of cutaneous malignancy, generally squamous cell carcinoma (SCC) but occasionally basal cell carcinoma, with transformation arising in chronically injured tissues. Thermal burns are the most common etiology, but other causes have been reported such as chronic osteomyelitis, diabetic ulcers, chronic venous ulcers, chronic fistulae, pilonidal sinus, hidradenitis suppurativa, chronic radiation dermatitis, discoid lupus erythematosus, leprosy, operative scars, tropical ulcers, frostbite, vaccination sites, gunshot wounds, puncture wounds, and dog bites. Road-traffic accidents are not an uncommon cause for subsequent cutaneous malignancy; however, it is rare in areas where healthcare is easily accessible.

CASE REPORT

A 63-year-old male presented to our wound care clinic with bilateral lower extremity wounds. The patient was in a motorcycle accident 20 years prior and sustained degloving injuries of his bilateral upper and lower extremities. He never sought initial medical treatment and, fortunately, the upper extremity wounds healed uneventfully. While the lower extremity never completely healed, they improved prior to deteriorating over the last year. He was admitted to an outside hospital, in July 2014, with shortness of breath, bilateral lower extremity edema, and purulent drainage of his left leg wound. MRI demonstrated osteomyelitis of the left tibia and fibular shafts. In addition, two biopsies were performed on a nodular growth that showed pseudoepiphielomatosus hyperplasia, squamous atypia, and inflammation without definitive invasive SCC. He adamantly refused their recommendation of below the knee amputation and presented to our clinic two months later.

On physical exam, pulses were non-palpable secondary to profound pitting edema and he had diminished protective sensation. The left leg wound extended from the tibial tuberosity to the proximal ankle with a cobblestone appearance and purulent drainage (Figs. 3 and 4). Lower extremity arterial duplex studies were ordered and showed adequate perfusion. He was then consented for a surgical wound debridement with biopsies of left tibia and surrounding soft tissue. The microbiology findings revealed soft tissue infection consisting of Escherichia coli, Citrobacter koseri, group B strep, and Stenotrophomonas maltophilia organisms. The pathology report demonstrated acute osteomyelitis of the left tibia and a soft tissue tumor of 1.3 x 0.5 cm consisting of pseudoepiphielomatosus hyperplasia with focal invasive SCC.

He was referred to a limb salvage specialist and an amputation was again recommended. Over the past 14 months, he has been treated with oral antibiotics and bi-weekly compressive dressings at the wound care clinic. The severity of his condition, along with the risk of metastasis, was reiterated to the patient, and he allowed for a whole-body PET CT scan. Subsequently, he was referred to an oncologist, who performed a biopsy of his left inguinal lymph node. Results were negative for metastatic SCC. Despite potential future metastasis, he has remained diametrically opposed to the idea of an amputation, believing that it will exacerbate his COPD and immobilize him for life.

DISCUSSION

The rare presentation of a patient with a non-burn traumatic wound still necessitates proper evaluation and diagnosis, due to high morbidity and mortality associated with a Marjolin’s ulcer. Most commonly found in the lower extremity, these ulcers may metastasize to the brain, liver, lung, kidney, and regional lymph nodes. Location of the lesion also influences the rate of metastases, with those of the lower extremity being the most metastatic. The overall survival rate has been reported as 52% at five years and 34% at ten years. Only a few studies have identified non-burn traumatic incidences as the source for cutaneous malignancy and most are in developing countries. Asuquo et. al. have published two articles describing traumatic incidence in Nigeria, with eight of thirteen Marjolin’s ulcer patients having a history of trauma. Hill et. al. published a case report of a patient developing SCC 42 years after kicking a stone and developing a subsequent non-healing wound.

CONCLUSION

- In developing countries, motor traffic accidents have been linked to incidences of Marjolin’s ulcers, though our case offers a rare insight into a condition not often seen in countries with well-established healthcare; the patient simply treated his wounds himself from the initial injury. Should he have obtained proper treatment at his initial injury, it is less likely that he would have developed a squamous cell carcinoma.
- Our patient has long refused the recommended treatment regimen, opting instead for local wound care with more uncertain results.

REFERENCES