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CLINICAL CASE

Marjolin's ulcer. A 10 year experience in a diabetic foot unit☆

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KEYWORDS
Marjolin's ulcer;
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Abstract
Background: Marjolin's ulcer is defined as the appearance of a neoplasm within a chronic wound. The most common histological type is squamous. A total of 2 cases treated in our hospital are presented.
Clinical cases: Case 1. A 71 year old man who presented with redness and suppuration from the wounds he had in his right foot after an electric shock 40 years earlier. The radiology showed involvement of the 4° and 5° metatarsal. Supracondylar amputation was performed, showing a well-differentiated invasive squamous cell carcinoma. *Case 2*. A 56 year old male, paraplegic for 20 years. He was treated due to an infected right heel ulcer, with partial improvement, but the ulcers persisted. Biopsy was performed, reporting as epidermoid carcinoma. Infracondylar amputation was performed. The diagnosis was a well-differentiated squamous cell carcinoma infiltrating the dermis.
Conclusion: The prevalence of Marjolin's ulcer is 1.3–2.2% of all ulcers. Diagnosis is difficult, so biopsy is recommended on any suspicious lesion or ulcer that has received conservative treatment for one month without improvement, although this time limit is not clear. The treatment is the surgery. Local excision with a margin of an inch is enough. If the ulcer is extensive, amputation is required. Survival is estimated between 66 and 80% at 2 years, with recurrence rates of 23%. Unfavourable factors are poor tumour differentiation and metástasis, appearing in 20% of cases.

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PALABRAS CLAVE
Úlcera de Marjolin;
Carcinoma escamoso;
Herida crónica

Úlcera de Marjolin: experiencia de 10 años en una unidad de pie diabético

Resumen
Antecedentes: La úlcera de Marjolin se define como la aparición de una neoplasia en el seno de una herida crónica. La histología más frecuente es epidermoide. Presentamos 2 casos tratados en nuestro hospital.
Caso clínicos: Caso 1. Varón de 71 años que consultó por supuración y enrojecimiento de las heridas que presentaba en el pie derecho, tras una descarga eléctrica 40 años antes. En la radiología se apreciaba afectación del 4° y 5° metatarsianos y del tarso. Se realizó amputación supracondílea, con resultado de carcinoma epidermoide bien diferenciado infiltrante. *Caso 2.* Varón de 56 años, parapléjico desde hacía 20 años. Es tratado por úlcera en talón derecho sobreinfectada, con mejoría parcial pero con persistencia de la lesión ulcerosa. Se realizó biopsia, de la que se informó como carcinoma epidermoide. Se realizó amputación infracondílea. El diagnóstico fue de carcinoma escamoso bien diferenciado que infiltraba la dermis.
Conclusiones: La prevalencia de la úlcera de Marjolin es de 1.3-2.2% de todas las úlceras. El diagnóstico es difícil, por lo que se recomienda biopsia de toda lesión sospechosa o de cualquier úlcera, que después de 1 mes de tratamiento conservador (aunque este límite es impreciso) no presenta mejoría. El tratamiento es quirúrgico; la escisión local con margen de un centímetro es suficiente; si la lesión es extensa es necesaria la amputación.
La supervivencia se estima entre el 66-80% a los 2 años, con tasas de recurrencia del 23%. Los factores desfavorables son la pobre diferenciación y las metástasis, que aparecen en el 20% de los casos.

Background

Marjolin's ulcer is defined as the appearance of an invasive neoplasm in a chronic wound of any origin. According to Onesti et al.,[1] the first description of malignant transformation of a scar on the skin is attributed to Celsius in the first century. However, it was Jean Nicolas Marjolin, in 1828, who described the ulcer which bears his name as a post-burn scar which turns malignant. Currently all cancers in chronic wounds are included under the definition of Marjolin's ulcer, and cases of all types have been described: those caused by burns, chronic venous ulcers, pressure ulcers, traumatic wounds, traumatic wounds, areas around a stoma, lupus, chronic lymphoedema ulcers, amputation stumps, chronic pilonidal sinus, hidradenitis suppurativa, necrobiosis lipoidica, chronic osteomyelitis fistula, freeze wounds, partial or total skin graft donor areas, neuropathic ulcers or snake bite ulcers.[1,2] The inflammatory environment of chronic ulcers affects the pathophysiology of the lesion, as does the abundance of cytotoxic products deriving from the activity of macrophages in the wound. Although cases have been described where basal cell tumours and melanomas have appeared,[1] the most common in terms of histology is the epidermoid strain.

We present 2 cases, diagnosed and treated in our Diabetic Foot Unit over the last 10 years.

Clinical cases

Clinical case 1

A 71-year-old male with no medical history of interest. At the age of 40 he suffered a high energy shock (during an electrical storm, the bolt struck him in the occipital region (Fig. 1), exiting through his right foot). He consulted the Emergency Department of our hospital with suppuration and reddening of the ulcers that he incurred as sequelae from the accident (Fig. 2) in his lower right limb. Plain X-ray of the foot revealed large bone involvement of the forefoot (Fig. 3), with no changes in the vascularisation of the lower limbs visible on magnetic resonance angiography. Given the extension of the lesion, a below-knee amputation was decided, which took place without incident, and the patient was discharged from hospital.

The pathological anatomy study report (Fig. 4) was of a well-differentiated epidermoid carcinoma which was

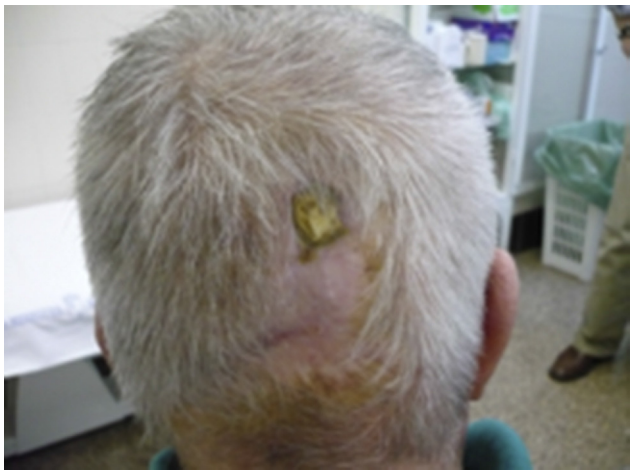

Figure 1 Point at which the lightning bolt entered at occipital level.