

CASE REPORT

MARJOLIN'S ULCERS ON THE THIGH TWO YEARS AFTER BURN

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SUMMARY. An 18-yr-old female patient presented to our unit two years after she had sustained a flame burn, with a three-month history of a right thigh scar ulcer. The ulcer had rapidly progressed with involvement of the sciatic nerve and infiltration of the right femur. Biopsy of the ulcer revealed squamous cell carcinoma. The patient however died shortly after admission from an overwhelming sepsis. The rarity of early onset of Marjolin's ulcer and the rapidity of fatality in this case constitute the reasons for presenting this report.

Introduction

In 1828 Jean-Nicolas Marjolin described the occurrence of tumours in post-traumatic scar tissue.¹ Since then, several reports of post-burn scar ulcers have been reported.^{2,4} As a general rule the latency period between the burn injury and the appearance of cancer is 25-40 years.³ However, early arising Marjolin's ulcers have been described in the literature.⁶

We describe a case of Marjolin's ulcer in an 18-yr-old female patient arising from a burn scar two years after the initial injury. The malignancy was quite aggressive, with death within four months of the development of the ulcer. This is a rare presentation, and we are not aware of any other case reported from our country - hence this report.

Case summary

An 18-yr-old girl presented to our unit at the Department of Plastic Surgery, National Orthopaedic Hospital, Enugu, Nigeria, with an infected ulcer over the right thigh of about three months' duration.

She had sustained flame burn to the limbs and trunk two years prior to the onset of this ulcer, when she set herself ablaze for failing her school certificate examination. She was subsequently rescued and taken to a private clinic, where the wounds were dressed until they all healed about four months later.

She however noticed itching and subsequent breakdown of the scar two years after the wounds had healed. The breakdown was mainly on the right thigh and the con-



Fig. 1 - Patient with right thigh ulcer lying chronically ill.

dition progressively increased in size and depth until she could walk only with support. She presented about three months later.

At presentation she was markedly wasted, chronically pale-looking ill, anicteric, and afebrile.

There was an almost circumferential ulcer on the right thigh involving almost the entire circumference and length of the thigh (*Fig. 1*). The edges were raised, with foul-smelling purulent discharge from the floor, which was dirty with slough and unhealthy granulation tissues. Posteriorly, the ulcer was hitting down to the bone with infiltration of the sciatic nerve. There was associated paraesthesia distal to the knee with a right foot drop. There was a 4 x 4 cm right inguinal node, which was discrete and non-tender.

An assessment of advanced Marjolin's ulcer was made, and this was histologically confirmed as squamous cell carcinoma.

The plan was to have a high amputation of the right thigh with groin dissection. The patient however became progressively ill while being prepared for surgery and died a week after admission as a result of overwhelming sepsis.

Discussion and conclusion

The first description of carcinoma formation in chronic ulcers is credited to the French surgeon Jean-Nicolas Marjolin, who in 1828 described the degeneration of scars into carcinomatous ulcers resulting in the eponym bearing his name, "Marjolin's ulcer". Varying long periods of onset of malignant ulcers after the initial injuries have been reported: 53-59 years^{3,5} and even 70 years have been reported.^{1,4,8} An earlier onset has also been reported after the initial injuries.^{7,9,10}

Celikoz et al.⁸ reported a case similar to ours. Their patient was a 21-yr-old man who had sustained thermal burn to the right elbow, the ulcer appearing three years later. Our patient was an 18-yr-old girl who developed a malignant ulcer on the right thigh two years after the initial thermal burn. The immunohistochemical study of the

specimen from Celikoz's patient showed the tumour to be mesenchymal in nature. We did not carry out an immunohistochemical study of the specimen from our patient

Wide local excision, with a margin of at least 1 cm of healthy tissue, has been suggested as the treatment for Marjolin's ulcer. Amputation is however indicated when local excision is prevented by deep invasion, bone or joint involvement, infection, or haemorrhage or when excision would impair function and encumber treatment.⁴ The extensive nature of the tumour in our patient, with involvement of the sciatic nerve and femur, accounted for the decision for amputation. However, the patient died before surgery could be performed.

In conclusion, we suggest that full-thickness burn or skin loss or ulcer should be skin grafted primarily. This will prevent the subsequent development of skin cancers from unstable scars and subsequent repeated breakdown and healing.

Early presentation to the hospital is also emphasized for any ulcer that does not respond to ordinary treatment within a short period.

RÉSUMÉ. Une patiente âgée de 18 ans s'est présentée à notre unité deux années après avoir subi des brûlures par flammes et avec une histoire récente (trois mois) d'un ulcère cicatriciel à la cuisse droite. L'ulcère s'était rapidement étendu, jusqu'à toucher le nerf sciatique et à infiltrer le fémur droit. La biopsie de l'ulcère indiquait un carcinome des cellules squameuses. Malheureusement, la patiente est décédée peu de temps après l'hospitalisation à cause d'un sepsis massif. La rareté du commencement précoce de l'ulcère de Marjolin et la rapidité de la fatalité en ce cas particulier constituent les motifs pour avoir présenté ce rapport.

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