

Case report:

Marjolin's Ulcer: A case report

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Abstract:

Although named an 'ulcer' it is a misnomer and the term is used for Squamous cell carcinoma developing in a chronic scar tissue mostly an old burns scar. The incidence of squamous cell carcinoma is on a rise with a disproportionate risk for women as opposed to men. It has a worse overall prognosis as compared to basal cell carcinoma. Several risk factors associated with development of SCC are sunlight exposure (specifically UV-B), immunocompromised state (HPV infection), genetic disorders (Xerodermapigmentosum and albinism), occupational and environmental exposure (arsenic, organic hydrocarbons, ionising radiations, cigarette smoke) and chronic disorders of skin (old burns scars, draining sinuses, ulcers). Most lesions begin with proliferation of keratin cells in basal layer of epidermis clinically termed as actinic keratosis. Lesions typically occur in chronically sun-exposed parts. Conversion rates to invasive carcinoma are low and estimated to be in a range of 1 in 1000 lesions/year.

Keywords: Squamous cell carcinoma, Marjolin's ulcer, chronic ulcer.

Introduction:

Although named an 'ulcer' it is a misnomer and the term is used for Squamous cell carcinoma developing in a chronic scar tissue mostly an old burns scar. The incidence of squamous cell carcinoma is on a rise with a disproportionate risk for women as opposed to men. It has a worse overall prognosis as compared to basal cell carcinoma. Several risk factors associated with development of SCC are sunlight exposure (specifically UV-B), immunocompromised state (HPV infection), genetic disorders (Xerodermapigmentosum and albinism), occupational and environmental exposure (arsenic, organic hydrocarbons, ionising radiations, cigarette smoke) and chronic disorders of skin (old burns scars, draining sinuses, ulcers). Most lesions begin with proliferation of keratin cells in basal layer of epidermis clinically termed as actinic keratosis. Lesions typically occur in chronically sun-exposed parts. Conversion rates to invasive carcinoma are

low and estimated to be in a range of 1 in 1000 lesions/year. Invasive SCCs are scaling lesions which ulcerate centrally and have an elevated edge. Precursor lesions of SCC can be treated with radiation therapy, cryosurgery, curettage, and electrodesiccation. However, surgical excision remains the preferred treatment for SCCs usually performed under local anaesthesia. A tumour free margin should be achieved while resecting the tumour. An alternative is the use of Mohs' micrographic excision (MME), which uses frozen sections to achieve a tumour free margin is preferred in areas where it is important to preserve as much tissue as possible such as around the eye, nose, mouth and ear.

Case report:

A 40 year old male patient, labourer by occupation presented to our OPD with chief complaint of a non-healing ulcer over his left knee on its lateral aspect since 4 months. The patient gave a history of receiving a crush injury to his left leg 20 years back

in a road-traffic accident. There was no underlying bone injury in the accident and the patient was subsequently managed by skin grafting over the area with tissue loss over his left knee. He developed a scar over the injured site but did not have any restriction to his limb movements or any other associated complaints. The patient again met with a road traffic accident 4 months back when he received a minor graze injury over the scar tissue from the previous accident. He was managed on OPD basis by daily cleaning and dressing in a primary health care centre. On failure of the wound to heal over a span of 2 months he was subsequently referred to our institute where he was admitted and investigated further. He had an ulcer of about 10x7 cm over the lateral aspect of his left knee, with a roughly triangular shape and slightly raised edges. The ulcer had a pale red granulation tissue at its base. No discharge was noted from the ulcer. An irregular scar tissue was noted around the ulcer (from the first injury), variably pigmented and making a circumferential band around the distal part of the left knee joint. The whole ulcer was found to be fixed to the underlying muscles. On FNAC the lesion came out to be positive for malignant cells. Edge biopsies were taken from various sites of the ulcer which came out to be positive for squamous cell carcinoma. The patient was subsequently managed by wide local excision with a margin of 5 mm. The case overall represents

a rare presentation of SCC as Marjolin's ulcer which otherwise is usually seen in old burns scars.

Discussion:

Marjolin's ulcer is defined as a tumour arising from a chronic wound, scar or chronic inflammation (1). Chronic ulcers especially those in population from developing nations present for a long duration of time, often in decades. The patient usually consults a doctor late when complications such as bleeding, secondary infection or growth from ulcer develop. These chronic ulcers may require to be biopsied at regular intervals as malignant change in these ulcers is directly related to their duration (2). Most patients are already in advanced stages of disease at the time of diagnosis of Marjolin's ulcer, which has been proven both in the present work and in literature (3-6). A variety of factors have been observed to predispose to malignant transformation of a chronic lesion, among them, prolonged duration, trauma and constant irritation, chronic infection with or without osteomyelitis, inadequate hygiene, environmental factors and genetic predisposition (5).

Hence we would like to emphasise that the morbidity and mortality associated with this malignant change can be easily reduced with increased awareness among healthcare workers which will help to diagnose these cases early, and can be managed with sufficient wide local excision.





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