

Available online at www.sciencedirect.com
SciVerse ScienceDirect
journal homepage: www.elsevier.com/locate/poamed

Case Report

Marjolin's ulcer: A non-frequent manifestation of a carcinomatous transformation in a chronic wound – Description of three cases and literature review



Piotr H. Drozdowski^{a,*}, Mateusz G. Zachara^a, Małgorzata Kuźlan^a,
Piotr Wójcicki^{a,b}

^aDepartment of Plastic Surgery, Medical Centre, Polanica-Zdrój, Poland

^bPlastic Surgery Clinic, Wrocław Medical University, Polanica-Zdrój, Poland

ARTICLE INFO

Article history:

Received 30 August 2013

Accepted 9 October 2013

Available online 14 October 2013

Keywords:

Marjolin's ulcer

Malignancy

Burn

Malignant transformation

SCC

ABSTRACT

Introduction: Lesion resulting from malignant transformation of a non-healing chronic wound of various etiology is referred to as Marjolin's ulcer. Histopathologically in most cases it is a squamous cell carcinoma, while basal cell carcinoma, melanoma malignum and sarcoma cases have been reported in the literature.

Aim: The aim of the work was to outline major characteristics of the entity and to focus on a variety of lesions which may evolve into this malignancy, based on literature review and patients operated on in the authors' department.

Material and methods: Four cases of malignant lesions which occurred in patients presenting chronic wounds in the period 2008–2012 were described.

Results and discussion: All patients presented squamous cell carcinomas which evolved in chronic post-burn wounds (two cases) and a chronic atheroma (one case). The time between the initial injury and malignant transformation was long (over 20 years in all cases). One patient died in the course of the disease.

Conclusions: Marjolin's ulcer is a non-frequent manifestation of a malignant neoplasm. It is an entity, which should be suspected and meticulously diagnosed and treated in all individuals presenting alerting symptoms such as chronic ulcerations of previously injured skin. It is a highly-virulent kind of malignant skin lesion in most cases due to late diagnosis and to histopathological characteristics of the entity. Surgical wide excision is a treatment of choice. In some cases, radiotherapy and limb amputation in some cases of acral localization are advocated. There is no agreement on prophylactic regional lymph node dissection.

© 2013 Warmińsko-Mazurska Izba Lekarska w Olsztynie. Published by Elsevier Urban & Partner Sp. z o.o. All rights reserved.

*Correspondence to: Department of Plastic Surgery, Medical Centre, Jana Pawła II 2, 57-320 Polanica-Zdrój, Poland.

Tel.: +4874 862 11 57; mobile: +48 692 040 080; fax: +4874 862 11 02.

E-mail address: piotr_drozdowski@wp.pl (P.H. Drozdowski).

1. Introduction

A neoplastic lesion evolving in chronic skin wounds and scars of various etiology is widely referred to as Marjolin's ulcer. It was first described in 1828 by Jean-Nicolas Marjolin, a French anatomist and surgeon, a colleague of Dupuytren, in a section upon ulcerations in *Dictionnaire de Médecine*. He presented four cases of a type of ulcer named *ulcère verruqueux*.²⁰ He did not describe them as malignant nor as resulting from pre-existing chronic ulcerations.⁴ It was in 1850 when Robert William Smith observed some types of ulcers that developed in post-burn scars, floggings or extensive lacerations and connected them with the ulcerations described by Marjolin.¹⁸ The above described lesions had either metastatic potential or were locally destructive, resulting in pathological bone fractures. Next description of a carcinomatous transformation in chronic wound – in a varicose ulcer of the leg – comes from John Chalmers DaCosta from the year 1903.⁵ *British Medical Dictionary* describes Marjolin's ulcer as a “squamous carcinoma developing in a chronic benign ulcer, e.g. a varicose ulcer, an old unhealed burn, or a wound scar”.¹¹ Although it was not Marjolin who first pointed out the malignant characteristics of ulcers arising in chronic wounds and scars, it is him who these lesions have been named after.

Squamous cell carcinoma (SCC) is the most common histopathological manifestation of Marjolin's ulcer, followed by basal cell carcinoma (BCC).¹⁵ Malignant melanoma or a sarcoma is less commonly identified.²¹ SCC arising in chronic wounds constitutes approximately 2%–5% of SCC cases¹⁹ being more frequent in men than in women (3:1), with predilection to age over 50 years.⁸ The level of malignancy is relatively high, including high local recurrence rate and metastatic potential.²¹

No univoqual data on the pathogenesis of Marjolin's ulcer exist. It has been suggested that some genetic or immunological factors may come into account.²¹ Some authors suggest that traumatized and chronically inflamed and hypoxied tissues may be more prone to carcinomatous transformation. However, most authors agree that a permanent, chronic inflammatory process and immune system deficiency play a significant role in its evolution.^{3,21}

2. Aim

The aim of the work was to outline major characteristics of the entity and to focus on a variety of lesions which may evolve into this malignancy, based on literature review and patients operated on in the authors' department.

3. Material and methods

A review of the patients treated in the authors' department was made. Four cases of malignant lesions which occurred in patients presenting chronic wounds in the period 2008–2012 were described.

4. Results

4.1. Case 1

A 60-years-old-patient was referred to Clinic due to large ulcerations of right gluteal crease, perineal region and posterior left upper and lower leg with a positive biopsy for *carcinoma planoepitheliale keratodes G1* (well-differentiated neoplasm-low grade of malignancy). At the age of 3 years he suffered from a thermal injury caused by clothes which caught fire. He was treated with split thickness skin grafts and the burns healed completely. He first presented at the Clinic at the age of 19 due to a large (25 × 12 cm²) non-healing ulceration of the posterior surface of his left upper leg and a cicatricial contracture of his left popliteal region. The contracture was released and the wound was covered by a split thickness skin graft. Some focal skin graft necrosis occurred in the postoperative course. The patient remained asymptomatic until his 60s, when a positive biopsy for *carcinoma planoepitheliale keratodes G1* was made from a non-healing wound in left gluteal and inguinal region, which corresponded to prior thermal injury site (Figs. 1 and 2). Ultrasound exam of both inguinal regions revealed several reactively enlarged lymph nodes. A wide excision of the lesion with a 2-cm margin was performed and the defect was covered with a split thickness skin graft (STSG) (Fig. 3). The histopathological exam presented *carcinoma planoepitheliale spinocellulare keratodes G2* (moderately – differentiated neoplasm – intermediate grade of malignancy), the resection margins were clear. The patient returned to our attention 6 months later due to an ulceration on the medial margin of the skin graft in the perineal region and a large (5 × 15 cm²) non-healing wound covered focally with necrotic tissue on the posterior surface of right upper leg. Again, the lesions were excised with wide margins and the defects were covered with STSG. Postoperative course was uneventful. The patient returned to the operating room after another 3 months due to a rapid growth of a tumor (of diameter of 5 cm) in perineal region (Figs. 4 and 5). The tumor was excised and the defect was covered by STSG. Postoperative course was complicated by partial skin graft necrosis, which resulted in need for reoperation. First histopathological exam revealed *carcinoma planoepitheliale spinocellulare keratodes G1* with clear margins, while wound biopsy performed at the time of reoperation



Fig. 1 – Patient 1 – ulceration in the perineal area – frontal view.

Download English Version:

<https://daneshyari.com/en/article/2678683>

Download Persian Version:

<https://daneshyari.com/article/2678683>

[Daneshyari.com](https://daneshyari.com)