

Case for diagnosis

Caso para diagnóstico

Sandra Lopes Mattos e Dinato¹
 Marcelo Mattos e Dinato³
 Ney Romiti⁵

Estela Gemha de Nóvoa²
 José Roberto Paes de Almeida⁴

CASE REPORT

A 29-year old black male manual worker, born in the state of Bahia and currently living in São Vicente in the state of São Paulo, presented with an ulcer that had a granular base and elevated borders. The lesion had been present for a year and was located on the patient's right leg on top of a scar resulting from a burn he had suffered 16 years ago. Three months previously, the patient had developed inguinal adenopathy on the same side following the appearance of a tumoral mass on his thigh, which was submitted to surgical drainage (Figure 1B).

Direct mycological examination, direct microscopy, culture of secretion, and serology were negative. Biopsy of the leg ulcer revealed a moderately pleomorphic squamous cell neoplasm (Figures 2A and 2B), whereas in the thigh, there was an atypical squamous cell lesion, pseudoepitheliomatous hyperplasia and lymphoplasmacytic reaction. The specimens were negative for infectious agents (Figure 2C). Diagnostic histopathology: a well-differentiated squamous cell carcinoma on the right leg, with a metastatic lesion on the ipsilateral thigh. Computed tomogra-

phy of the abdomen showed enlarged paraaortic lymph nodes, suggesting lymphatic dissemination. Treatment was initiated with chemotherapy and radiotherapy to prepare for later surgical intervention.

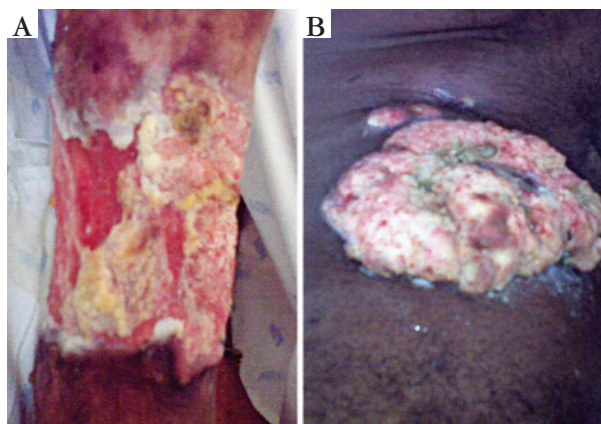


FIGURE 1: A. Clinical appearance of the ulcer on the patient's right leg. B. Tumor on the right thigh, with overlying adenopathy

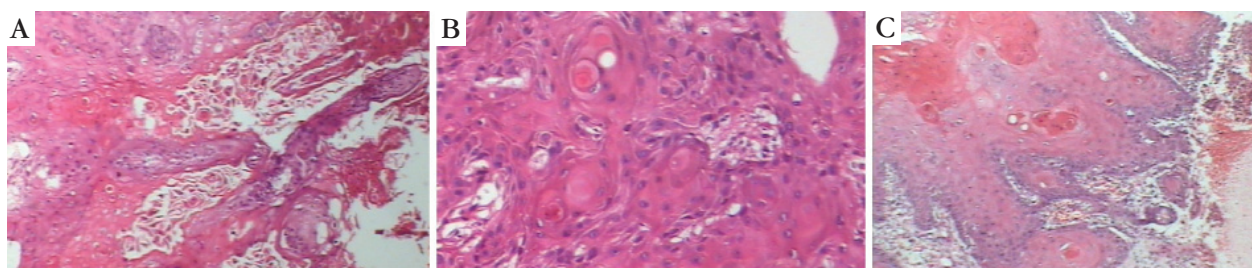


FIGURE 2: A. Squamous cells with moderate nuclear pleomorphism and an infiltrative appearance (hematoxylin-eosin, magnification 40x). B. Keratin pearls (hematoxylin-eosin, magnification 100x). C. Pseudoepitheliomatous hyperplasia and lymphoplasmacytic reaction

Approved by the Editorial Board and accepted for publication on 29.08.2010.

* Study conducted at the Centro Universitário Lusíada (UNILUS), São Paulo, Brazil
 Conflict of interest: None / *Suporte Financeiro: Nenbum*
 Financial funding: None / *Conflito de Interesses: Nenbum*

¹ PhD, Professor of Dermatology, School of Medicine, University of São Paulo (USP). Professor, Centro Universitário Lusíada (UNILUS), São Paulo, Brazil.

² Dermatologist, Campinas, São Paulo, Brazil.

³ Currently participating in a Master's Degree Program in Dermatology, University of Campinas (UNICAMP), Campinas, São Paulo, Brazil. Professor, Centro Universitário Lusíada (UNILUS), São Paulo, Brazil.

⁴ Master's Degree in Dermatology, Federal University of São Paulo (UNIFESP). Professor, Centro Universitário Lusíada (UNILUS), São Paulo, Brazil.

⁵ Professor, Centro Universitário Lusíada (UNILUS), São Paulo, Brazil.

DISCUSSION

Da Costa coined the term Marjolin's ulcer in 1903 to describe a malignant transformation developing on injured skin. This denomination derives from the fact that in 1828¹ Jean Nicolas Marjolin, a French surgeon, described the occurrence of chronic ulcers developing over skin scars from previous burns.¹⁻⁴ According to the literature, 2.5% of malignant skin neoplasias develop on a previous burn wound; however, this figure may be as high as 9%.³

Marjolin's ulcers usually develop on old burn wounds.^{2,5,6} Nevertheless, there have been reports of the lesion in stasis ulcers,⁷ cutaneous lupus,¹ osteomyelitis fistula,^{1,5,6} syphilitic lesions, dermatitis artefacta and congenital epidermolysis bullosa.⁴

The condition occurs in adults, with no preference for age or race.³ On the other hand, although the incidence of burns is higher in women, the occurrence of associated carcinomas is more common in men.^{3,9}

Squamous cell carcinoma is the most common type of malignancy, occurring in 75-96% of cases,^{2,3} and it tends to be more aggressive compared to carcinomas that are unassociated with skin scars.^{5,6,9} Marjolin's ulcer is one of the ten most common clinical subtypes of this form of cancer.¹⁰ Cases have also been reported of basal cell carcinomas (1-25% of cases) and, less commonly, melanomas and sarcomas.^{2,3}

Factors possibly associated with Marjolin's ulcer are genetic predisposition and humoral factors, alterations in local epithelial cells, defective vascularization and scar traction. There is a consensus on the importance of repeat trauma to the scar.^{2,3,5,9} Inappropriate treatment may also represent a critical factor. The interval between the initial skin aggression and the appearance of the neoplasia varies from

31 to 42 years. Nevertheless, cases have been reported in which the lesion developed within three months of the initial trauma and others in which onset occurred only after 70 years.^{6,8}

The principal initial symptoms include local pain (74%), a fetid secretion (68%) and bleeding or hemorrhage (58%).⁶ The lesions are most often located on the limbs (70-88%),^{3,9} although there have been reports of neoplasia in the neck, trunk and scalp.³ In general, the lesions consist of flat ulcers, with a granular base, thick or elevated borders and a hardened base,^{2,3} or tumors.

Once diagnosis is made of a squamous cell carcinoma, ample excision of the lesion is performed so as to ensure better prognosis.^{2,3} Recurrence of the lesion between 6 and 11 months after surgery (at a mean of 8.8 months) has been reported by some authors. According to the literature, the incidence of metastases at the time of diagnosis is 32%.⁶ However, it is controversial whether prophylactic regional lymph node resection and radiotherapy are indicated.^{3,5}

The case reported here illustrates the potential aggressiveness of the lesion. The principal differential diagnoses for the lesion on the patient's thigh associated with adenopathy consisted of venereal lymphogranuloma, soft chancre and syphilis. Differential diagnoses for the leg ulcer consisted of tuberculosis and paracoccidioidomycosis.

Therefore, since prognosis is poorer when a squamous cell carcinoma is associated with Marjolin's ulcer, ample excision should be performed at an early stage, and follow-up for recurrences and metastases should be rigorous to ensure the best prognosis.^{2,9} □

Abstract: Marjolin's ulcer is a term used to describe a malignant transformation that originates in chronic skin lesions. These neoplasms may be more aggressive than those unassociated with healing processes and are frequently overlooked or inadequately treated. This case report describes the occurrence of a squamous cell carcinoma occurring at the site of a burn scar and emphasizes the need for early diagnosis and treatment in order to assure better prognosis.

Keywords: Carcinoma; Cicatrix; Ulcer

Resumo: O termo úlcera de Marjolin é usado para designar a transformação maligna que se origina na pele cronicamente lesada. Trata-se de neoplasia mais agressiva do que aquelas não relacionadas com cicatriz e, frequentemente, é subdiagnosticada ou tratada de forma inadequada. Relatamos a ocorrência de carcinoma, do tipo espinocelular sobre cicatriz de queimadura, salientando a necessidade do diagnóstico e intervenção precoces visando um melhor prognóstico.

Palavras-chave: Carcinoma; Cicatriz; Úlcera

REFERENCES:

1. Simmons MA, Edwards JM, Nigam A. Marjolin's ulcer presenting in the neck. *J Laryngol Otol.* 2000;114:980-2.
2. Asuquo M, Ugare G, Ebughe G, Jibril P. Marjolin's ulcer: the importance of surgical management of chronic cutaneous ulcers. *Int J Dermatol.* 2007;46(Suppl 2): 29-32.
3. Dupree MT, Boyer JD, Cobb MW. Marjolin's Ulcer Arising in a Burn Scar. *Cutis.* 1998;62:49-51.
4. Königová R, Rychterová V. Marjolin's ulcer. *Acta Chir Plast.* 2000;42:91-4.
5. Bauk VOZ, Assunção AM, Domingues RF, Fernandes NC, Maya TC, Maceira JP. Úlcera de Marjolin: relato de 12 casos. *An Bras Dermatol.* 2006;81:355-8.
6. Hahn SB, Kim DJ, Jeon CH. Clinical study of Marjolin's ulcer. *Yonsei Med J.* 1990;31:234-41.
7. Olewiler SD. Marjolin's ulcer due to venous stasis. *Cutis.* 1995;56:168 - 70.
8. Azoubel RH, Anjos EJV, Zarife AS, Gusmão IO. Úlcera de Marjolin: relato de um caso com período de latência de 70 anos. *Acta Oncol Bras.* 1986;6:131-3.
9. Kasse AA, Betel E, Dem A, Diop M, Fall MC, Diop PS, et al. Cancers in the scars of thermal burn (apropos of 67 cases). *Dakkar Medical.* 1999;44:206-10.
10. Bernstein SC, Lim KK, Brodland DG, Heidelberg KA. The many faces of squamous cell carcinoma. *Dermatol Surg.* 1996;22:243-54.

MAILING ADDRESS / ENDEREÇO PARA CORRESPONDÊNCIA:

Sandra Lopes Mattos e Dinato

Rua Oswaldo Cruz, 451

11045-101 Boqueirão. Santos-SP

e-mail: sandradinato@yahoo.com.br

How to cite this article/Como citar este artigo: Dinato SLM, Nóvoa EG, Dinato MM, Almeida JRP, Romiti N. Caso para diagnóstico. *Úlcera de Marjolin.* *An Bras Dermatol.* 2011;86(3):601-610.