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Case Report

Marjolin's Ulcer in the Upper Limbs in an Elderly Patient: A Case Report

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ABSTRACT

Marjolin's ulcer corresponds to the malignant transformation of chronic cutaneous wounds or unstable scars, most commonly associated with squamous cell carcinoma (SCC). It develops mainly in burn scars, traumatic ulcers, infected wounds or prolonged inflammatory processes. The upper limbs are among the most frequently affected sites due to greater exposure to trauma and harmful agents. Although rare, it presents aggressive behavior, with high invasive and metastatic potential, especially when diagnosed late. The latency period between the initial lesion and malignant transformation may range from years to decades, with an average of approximately 35 years, contributing to delayed diagnosis. Diagnosis is based on clinical suspicion in the presence of changes in chronic wounds, such as rapid growth, bleeding, persistent pain, foul odor or indurated borders and is confirmed by histopathological examination. Treatment is predominantly surgical, involving wide excision with adequate oncologic margins and amputation may be necessary in advanced cases. Lymph node evaluation is essential due to the risk of metastasis.

Keywords: Marjolin's ulcer; Squamous cell carcinoma; Upper limbs; Chronic wounds; Skin neoplasms

Introduction

Marjolin's ulcer, also known as scar carcinoma, is defined as the malignant transformation of a chronic cutaneous lesion[1,2]. It was first described by Jean-Nicolas Marjolin in 1828. It is a rare but clinically relevant condition due to its more aggressive behavior compared to primary skin carcinomas. Squamous cell carcinoma is the most frequent histological subtype, although basal cell carcinoma, melanoma and sarcomas have also been described. Deep burn scars are the main risk factor, especially when associated with persistent inflammation and chronic infection. The upper limbs are frequently affected due to greater exposure to thermal and chemical burns, occupational trauma and wounds with poor healing[3,4]. The latency period generally ranges from 20 to 40 years, although acute forms may occur, especially in immunosuppressed patients. Clinically, it presents as a chronic wound that develops warning signs such as progressive enlargement, indurated borders, bleeding, discharge and persistent pain. In the upper limbs, invasion may involve muscles, tendons, nerves and bones, resulting in significant functional impairment. Early recognition is essential for a better prognosis, requiring a high degree of clinical suspicion, histopathological confirmation and timely surgical treatment[5-7].

Materials and Methods

This is a narrative literature review conducted through

searches in PubMed, SciELO, LILACS and Google Scholar databases.

Objective

To describe and discuss a clinical case of Marjolin's ulcer in the upper limb secondary to an old burn scar, highlighting clinical evolution, diagnostic and therapeutic challenges, as well as the prognostic implications of delayed diagnosis.

Case Report

A 71-year-old female patient with a history of extensive thermal burn at the age of 2 years, affecting approximately 25% of total body surface area, including the trunk and right upper limb (RUL). The lesion evolved with the formation of an extensive scar and over the years, the patient presented recurrent episodes of chronic ulceration on the lateral aspect of the right arm, characterized by long periods without definitive healing despite local care. During outpatient follow-up, progressive worsening of the lesion was observed, with an increase in diameter, induration of the borders, local pain and signs suggestive of neoplastic transformation. In 2025, an incisional biopsy of the chronic wound was performed and the anatomopathological examination revealed well-differentiated squamous cell carcinoma, consistent with the diagnosis of Marjolin's ulcer. Given the diagnosis and considering the patient's clinical condition, radiotherapy was initially proposed for local disease control. However, after completion of radiotherapy, persistence of the neoplasm was observed, associated with local progression of the lesion, extending to adjacent structures of the right upper limb. Along with tumor progression, the patient developed severe pain, difficult to control with conventional analgesia, in addition to significant functional impairment of the affected limb.

Due to refractoriness to conservative treatment, local tumor aggressiveness and the negative impact on quality of life, complete disarticulation of the right upper limb was indicated as a definitive therapeutic measure, aiming at oncologic control and symptom relief. The surgical procedure was performed without complications and the patient had a good postoperative recovery, with no immediate signs of infectious complications or local recurrence. During outpatient follow-up, the patient reported sporadic episodes of pain in the amputated limb, with characteristics consistent with phantom limb pain syndrome, currently under clinical follow-up and multidisciplinary management **(Figure 1a and 1b)**.

Figure 1: a) Trunk with chronic scars from thermal burns; b) Right upper limb with chronic scars from thermal burns.

Figure 2: a) Medial aspect of Marjolin's ulcer b) Lateral aspect of Marjolin's ulcer.

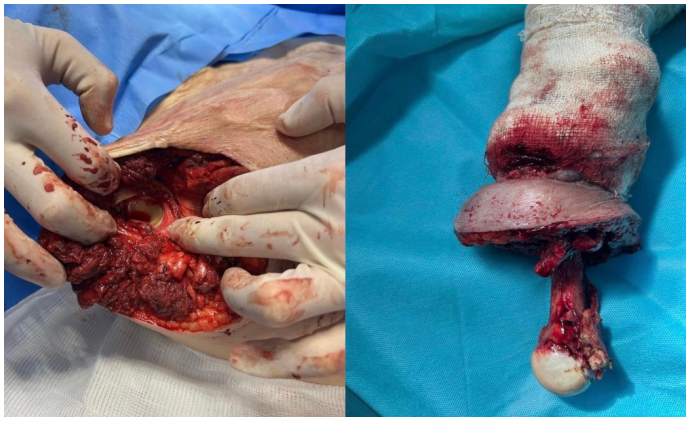

Figure 3: a) Exposure of muscles and tendons after disarticulation; b) Disarticulated limb.

Figure 4: Surgical wound in the immediate postoperative period.

Discussion

Marjolin's ulcer is an uncommon complication of chronic wounds, classically associated with burn scars. The long latency period between the initial injury and malignant transformation contributes to delayed diagnosis, especially when changes are misinterpreted as benign inflammation[8-10]. Squamous cell carcinoma associated with this condition is more aggressive than its primary form, with a tendency for deep invasion and regional dissemination.

In the present case, there was involvement of adjacent structures of the upper limb, severe pain and significant functional impairment. Radical surgical treatment remains the main therapeutic strategy[11,12]. Although radiotherapy may be

considered in selected situations, its role is limited in advanced cases. In scenarios of extensive tumor invasion, amputation may be necessary for oncologic control and symptom relief. Postoperative complications, such as phantom limb pain, should be managed in a multidisciplinary manner, focusing on rehabilitation and quality of life[13]. This case reinforces the importance of early biopsy in any suspicious change in chronic wounds, especially burn scars[14,15].

Conclusion

Marjolin's ulcer in the upper limbs is a rare but potentially severe condition, associated with high morbidity when diagnosed late. Squamous cell carcinoma is the predominant subtype and exhibits more aggressive behavior than primary skin carcinomas. Early diagnosis is the main modifiable prognostic factor. Clinical changes in chronic wounds should prompt immediate investigation with biopsy. Treatment is based on wide surgical excision with adequate margins and careful lymph node evaluation. Management should be multidisciplinary, involving surgery, dermatology, pathology and oncology. Continuous surveillance of chronic scars is essential to reduce delayed diagnoses and improve clinical outcomes.

References

1. Kerr-Valentic MA, Samimi K, Rohlen BH, et al. Marjolin's ulcer: modern analysis of an ancient problem. Plastic and Reconstructive Surgery, Philadelphia, 2009;123(1): 184-191.
2. Copcu E. Marjolin's ulcer: a preventable complication of burns? Plastic and Reconstructive Surgery, 2009;124(1): 156-164.
3. Kowal-Vern A, Criswell BK. Burn scar neoplasms: a literature review and statistical analysis. Burns, Amsterdam, 2005;31(4): 403-413.
4. Pekarek B, Buck S, Osher L. Marjolin's ulcer: a meta-analysis. Journal of Plastic, Reconstructive & Aesthetic Surgery, 2011;64(4): 548-554.
5. Fleming MD, Hunt JL, Purdue GF, et al. Marjolin's ulcer: a review and reevaluation of a difficult problem. Journal of Burn Care & Research, Oxford, 2010;31(6): 964-969.
6. Bozkurt, M. et al. Marjolin's ulcer of the upper extremity: a case report and literature review. Annals of Plastic Surgery, Philadelphia, 2010;65(5): 542-546.
7. Bazaliński D, Przybek-Mita J, Baranska B, et al. Marjolin ulcer in chronic wounds: risk factors, diagnosis and treatment. Wounds, Malvern, 2017;29(6): 175-182.
8. Dorr RA, et al. Squamous cell carcinoma arising in burn scars of the upper extremity. Journal of Hand Surgery, Philadelphia, 2000;25(3): 493-498.
9. Chalya PL, Mabula JB, Rambau P, et al. Marjolin's ulcers at a university teaching hospital in Northwestern Tanzania. World Journal of Surgical Oncology, 2012;10(1): 38.
10. Baldursson B. et al. Malignancy in chronic leg ulcers. Acta Dermato-Venereologica, 1999;79(6): 448-450.
11. Treves N, Pack GT. The development of cancer in burn scars. Surgery, Gynecology & Obstetrics, 1930;51: 749-782.
12. Ozek C, Cankayali R, Bilkay U, et al. Marjolin's ulcers arising in burn scars. Burns, Amsterdam, 2001;27(4): 379-383.
13. Harland DL, et al. Aggressive squamous cell carcinoma arising in chronic wounds (Marjolin's ulcer). Plastic and Reconstructive Surgery, 1999;103(7): 2076-2083.
14. Onesti MG, et al. Surgical treatment of Marjolin's ulcer: a ten-year experience. Annals of Plastic Surgery, 2014;73(4): 435-439.
15. Iqbal FM, et al. Upper limb Marjolin ulcer: case series and literature review. Hand Surgery & Rehabilitation, 2019;38(2): 108-113.