JNT - FACIT BUSINESS AND TECHNOLOGY JOURNAL - ISSN: 2526-4281 - QUALIS B1 ANO 2024 - MÊS DE DEZEMBRO - FLUXO CONTÍNUO - Ed. 57. Vol. 1. Págs. 470-476 DOI: 10.5281/zenodo.14502943



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TREATMENT OF SQUAMOUS CELL CARCINOMA IN THE LOWER LIP: CASE REPORT AND REVIEW OF THERAPEUTIC ALTERNATIVES

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ABSTRACT

This article describes the clinical case of an 80-year-old female patient, leucodermic and controlled hypertensive, who presented with an ulcerated lesion on the lower lip with a two-year evolution. After an initial diagnosis of actinic cheilitis with moderate epithelial dysplasia and unsuccessful treatment with cryotherapy, a final diagnosis of squamous cell carcinoma (SCC) was made. Surgical treatment involved a total vermilionectomy of the lower lip, followed by bilateral reconstruction using Gilles flap associated with Z-plasty. The patient showed good aesthetic and functional recovery

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after six months of follow-up, with no recurrence. The article discusses the clinical management of the lesion, therapeutic alternatives, and the importance of reconstruction after resection.

Keywords: Squamous cell carcinoma. Lower lip. Vermilionectomy. Actinic cheilitis. Epithelial dysplasia. Surgical treatment.

INTRODUCTION

Squamous cell carcinoma (SCC) is a malignant neoplasm that frequently affects the lower lip region, often related to chronic sun exposure, particularly in individuals with fair skin phototypes. Actinic cheilitis is considered a precursor lesion and may progress to malignancy if not properly treated. (1, 2) This study aims to report a case of SCC in the lower lip, highlighting the clinical management, the surgical treatment performed, including the reconstruction technique, and the importance of follow-up to prevent recurrences. (3, 4)

ARTICLE TYPE

Clinical case report. (5)

Case Report

An 80-year-old female patient, leucodermic, controlled hypertensive, with a history of unprotected sun exposure, sought care at our Orofacial Lesion Diagnosis Center complaining of an asymptomatic lesion on the lower lip, progressively growing over two years. The lesion had ulcerated characteristics, irregular borders, and yellowish, reddish, and blackened areas. A year earlier, the patient had undergone an incisional biopsy, which revealed actinic cheilitis with moderate epithelial dysplasia, and was treated with cryotherapy without success.(6) A new excisional biopsy was performed, leading to a final diagnosis of SCC, with no metastasis.(7) The patient underwent a total vermilionectomy of the lower lip, followed by bilateral reconstruction using Gilles flap associated with Z-plasty. This approach was chosen to restore lip continuity and minimize scarring, providing better

aesthetic and functional outcomes. Recovery was satisfactory, and the patient showed no signs of recurrence after six months. (8)

OBJECTIVE

The objective of this case report is to demonstrate the effectiveness of vermilionectomy as a definitive treatment for squamous cell carcinoma in the lower lip, especially in cases arising from actinic cheilitis (1, 9). The study also proposes a discussion of other therapeutic modalities for premalignant and malignant orofacial lesions, emphasizing the importance of reconstruction following resection (10).

DISCUSSION

Managing malignant lesions of the lower lip requires a careful approach, particularly in cases of actinic cheilitis with epithelial dysplasia. Vermilionectomy is a well-established technique for SCC treatment as it allows complete removal of the affected area, reducing the risk of recurrence (11, 12)

Alternatives such as cryosurgery and CO_2 laser use are valid but have limitations depending on the depth and extent of the lesion. The use of the Gilles flap in lower lip reconstruction, combined with Z-plasty, is an effective approach, as it restores lip continuity and preserves function. Studies show that early diagnosis and correct treatment choice are crucial for therapeutic success and patient quality of life.

PROPOSITION

This clinical case report presents an 80-year-old female patient with an ulcerated lesion on the lower lip, evolving over two years, ultimately diagnosed as squamous cell carcinoma (SCC) following an initial misdiagnosis of actinic cheilitis with moderate epithelial dysplasia. The objective of this study is to highlight the effectiveness of vermilionectomy as a definitive treatment for SCC, particularly in cases that originate from actinic cheilitis. (7, 8)

In addition to demonstrating the surgical approach, this work aims to discuss various therapeutic alternatives for managing premalignant and malignant orofacial lesions, underscoring the critical role of reconstructive techniques in achieving optimal aesthetic and functional outcomes. The case illustrates how timely diagnosis and

appropriate surgical intervention can significantly improve patient recovery and quality of life, with a focus on the successful use of the Gilles flap and Z-plasty for reconstruction. (13)

Moreover, this report emphasizes the necessity of regular follow-ups to monitor for potential recurrences and complications, thereby reinforcing the importance of comprehensive management in the treatment of oral malignancies. Through this case study, we aim to contribute to the ongoing dialogue on best practices in the surgical management of SCC and the significance of preventive care in at-risk populations. (13)

CONCLUSION

Vermilionectomy is an effective option in the treatment of squamous cell carcinoma of the lower lip, particularly in patients with malignant lesions resulting from actinic cheilitis. Reconstruction with the Gilles flap and Z-plasty proved to be an effective strategy for ensuring lip functionality and aesthetics. In this case, the patient showed good recovery, with no recurrences after six months, reinforcing the effectiveness of this surgical approach. (9-12)

FINAL CONSIDERATIONS

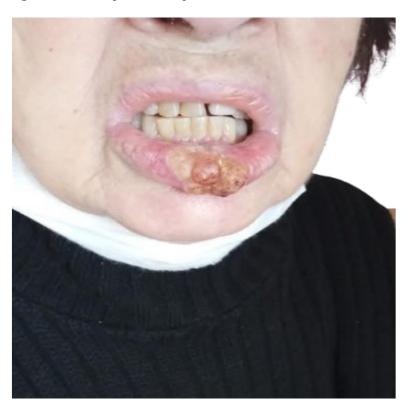
This case report highlights the importance of early detection and appropriate treatment of potentially malignant oral lesions. Vermilionectomy, along with suitable reconstruction techniques, has proven to be a safe and efficient procedure for treating squamous cell carcinoma of the lower lip, providing good aesthetic and functional outcomes. Regular follow-up is essential to prevent complications and recurrences. (1, 13-15)

Supplementary files

Figure 1: View of the lesion with approximately 1 year of evolution, diagnosed as Actinic Cheilitis on the lower lip.

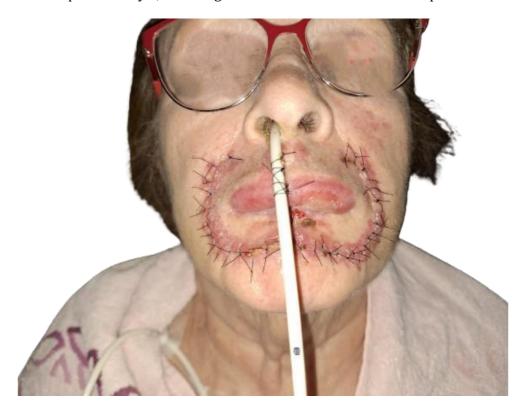


Figure 2: The patient presents a lesion with 2 years of progression, underwent unsuccessful cryotherapy, leading to the development of squamous cell carcinoma.



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Figure 3: Postoperative day 7, following excision of the lesion and lower lip.



REFERENCES

- 1. Hosal IN, Önerci M, Kaya S, Turan E. Squamous cell carcinoma of the lower lip. American Journal of Otolaryngology. 1992;13(6):363-5.
- 2. AC B. Squamous-cell epithelioma of the lip. A study of 537 cases. JAMA. 1920;74:656-64.
- 3. Antoniades D, Styanidis K, Papanayotou P, Trigonidis G. Squamous cell carcinoma of the lips in a northern Greek population. Evaluation of prognostic factors on 5-year survival rate—I. European Journal of Cancer Part B: Oral Oncology. 1995;31(5):333-9.
- 4. Baker SR. Malignant neoplasms of the oral cavity. Otolaryngology-head and neck surgery. 1993; 2:1281-343.
- 5. de Oliveira Mendonça PB. A metodologia cientí'fica em pesquisas educacionais: pensar e fazer c i e 'hcia. Interfaces Cientí'ficas-Educação. 2017;5(3):87-96.
- 6. Frierson Jr HF, Cooper PH. Prognostic factors in squamous cell carcinoma of the lower lip. Human pathology. 1986;17(4):346-54.
- 7. Gonza'lez Guerra H, Calderaro Di Ruggiero F, Troconis Elorga JR, Castro Garcí'a J. Carcinoma epidermoide del labio inferior: consideraciones prono'sticas. Centro me'd. 1991:53-8.

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- 8. Hjortdal O, Naess A, Berner A. Squamous cell carcinomas of the lower lip. Journal of Cranio-Maxillofacial Surgery. 1995;23(1):34-7.
- 9. Jovanovic A, Schulten EA, Kostense PJ, Snow GB, van der Waal I. Squamous cell carcinoma of the lip and oral cavity in The Netherlands; an epidemiological study of 740 patients. Journal of Cranio-Maxillofacial Surgery. 1993;21(4):149-52.
- 10. Luce EA. Carcinoma of the lower lip. Surgical Clinics of North America. 1986;66(1):3-11.
- 11. Ochsenius G, Ormen O A, Godoy L, Rojas R. A retrospective study of 232 cases of lip cancer and pre cancer in Chilean patients. Clinical-histological correlation. Revista Me'dica de Chile. 2003;131(1):60-6.
- 12. Ogura I, Amagasa T, Iwaki H, Kijima T, Kurabayashi T, Yoshimasu H. Clinicopathological study of carcinomas of the lip and the mucosa of the upper and lower lips. International Journal of Clinical Oncology. 2001; 6:123-7.
- 13. Oliveira CLd, Arruda AM, Reis Filho GdC, Santos Ld, Anbar RA. Tratamento ciru'rgico de retraço es axilares e mento-tora cica com zetaplastia. Rev bras cir pla st. 2010:213-6.
- 14. de Oliveira LM, Bomfim LF, de Souza Nunes F. Diagno´stico de ca'ncer bucal em Sergipe no a'mbito do SUS-revisa´o de literatura. Brazilian Journal of Implantology and Health Sciences. 2024;6(8):435-45.
- 15. Tanajura TEM, do Nascimento JdS. Tratamento radioquimiotera´pico em caso extenso de carcinoma de ce´lulas escamosas em la´bio inferior: Relato de caso. Research, Society and Development. 2024;13(7): e4013746232-e.