Cutaneous traction as a complement to the parascapular flap in major cancer loss: case report

Tração cutânea como complemento ao retalho paraesapcular em grande perda oncológica: relato de caso

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INTRODUCTION

Squamous cell carcinoma (SCC) is a malignant tumor of epidermal keratinocytes that invades the dermis and can generate metastases. It has a higher incidence in individuals over 50 years old, with the main etiologies being: sun exposure and carcinogenic agents1.

The most affected sites are the scalp, back of the hands, lower lip, ears, face, buccal mucosa, and external genitalia1. The clinical characteristics of the lesion range from erythematous papules or plaques with a scaly or crusted surface to hyperkeratotic nodules, often with a verrucous appearance1.

ABSTRACT

Introduction: Squamous cell carcinoma (SCC) is a malignant epidermal keratinocyte tumor closely related to sun exposure. When diagnosed, through biopsy, its staging, tumor resection with oncological safety margins must be performed, and lymph node dissection and treatment of metastases, if present, may be performed. Case Report: Skin traction is reported as a complement to the parascapular flap, used reconstructively after the excision of a large SCC in the left shoulder. Conclusion: The technique used proved effective for the satisfactory correction of large dehiscence in the postoperative period of the parascapular flap, promoting partial closure of the defect, reduced time to perform, and correction of the residual defect in a single step.

Keywords: Surgical flaps; Skin neoplasms; Carcinoma, squamous cell; Reconstructive surgical procedures; Surgery, plastic.

RESUMO

Introdução: O carcinoma espinocelular (CEC) é um tumor maligno dos queratinócitos epidérmicos e está intimamente relacionado à exposição solar. Quando diagnosticado, por meio de biópsia, deve ser realizado seu estadiamento, ressecção tumoral com margens de segurança oncológica, podendo ser feito esvaziamento ganglionar e tratamento de metástases, caso presentes. Relato de Caso: Reporta-se a utilização da tração cutânea como complemento ao retalho paraesapicular, utilizado reconstructivamente após a excisão de CEC de grande dimensão em ombro esquerdo. Conclusão: A técnica utilizada mostrou-se eficaz para correção satisfatória de grandes deiscências em pós-operatório de retalho paraesapicular, promovendo fechamento parcial do defeito, tempo reduzido para realização e correção do defeito residual em tempo único.

Descritores: Retalhos cirúrgicos; Neoplasias cutâneas; Carcinoma espinocelular; Procedimentos cirúrgicos reconstrutivos; Cirurgia plástica

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A biopsy confirms the diagnosis, and the staging is performed according to the TNM table. In addition to tumor resection, lymph node dissection and treatment of metastases may occur, if necessary. This study aims to describe the suture by Góes et al. as a complement to the parascapular flap, used reconstructively after the excision of SCC.

**CASE REPORT**

The patient, 50 years old male, white civil construction assistant, sought care due to an ulcerated lesion measuring 5.7 x 5.2 cm on the left shoulder, with the appearance of SCC, confirmed by biopsy (Figure 1).

Preoperative tests (laboratory and cardiological) were performed, which were normal and with surgical risk grade 1. After the demarcation of the tumor area with oncological safety margins, the patient underwent general anesthesia and was positioned in the right lateral decubitus position (Figure 2).

The lesion was resected with oncological margins and sent for anatomopathological examination, with the result of invasive squamous cell carcinoma grade 3 of differentiation, invasion to the subcutaneous tissue (Class V), free margins, no angiolympathic involvement detected, and no perineural invasion.

A parascapular flap was demarcated, measuring (21cm x 6.5cm), based on the parascapular artery, a branch of the left axillary artery (Figure 3).

The flap was elevated and rotated to reach the left shoulder region (Figures 4 and 5) and sutured to its new bed with nylon 3-0 and 4-0. This completely covered the tumor resection area.

The donor area of the flap was repaired by advancing the local flaps and suturing with 3-0 and 2-0 nylon (Figure 6).

After 24 hours, there was a suture dehiscence in the distal part of the flap and pain at its extremity due to venous congestion (Figure 7).

Cyclic and continuous traction of the cutaneous margins was used to close the bloody area and a small part was partially left for healing by second intention (Figure 8).

The distal end of the parascapular flap with venous congestion evolved to dry necrosis of an area larger than the initial one, which did not require debridement (Figure 9).

The patient was followed up, requiring radiotherapy treatment, with good evolution and adequate surgical wound healing (Figures 10 and 11).

**DISCUSSION**

The literature cites numerous methods for covering the reported defect, including skin graft, latissimus dorsi myocutaneous flap, trapezius myocutaneous flap and microsurgical flaps. The preference for the parascapular flap is due to its...
greater ability to cover large areas, in addition to muscle preservation compared to other myocutaneous flaps, which generate great functional loss, requiring long periods for compensation, as is the case with the latissimus dorsi and trapezium flaps.

Treatment with microsurgery is highly specialized, and our Service does not have the proper equipment, so we cannot perform it.

Due to the patient’s profession (civil construction assistant), the skin graft would inevitably suffer loss with the work activity, causing a poor prognosis.

The parascapular flap is described in the literature with a length of up to 30 cm. Considering the patient’s height of 1.82m, the length of the flap was adequate for its use, with the advantage of ensuring thick coverage - resistant to trauma and without muscle mobilization, allowing the patient to return to activities early.

Wound closure by skin traction, recommended in 2004 by Carlos Henrique Fröner S. Góes et al., was performed in the ward on the second postoperative day to correct the dehiscence. For this purpose, Prolene 2 thread was used, with insertion in the area posterior to the detachment, exteriorizing it inside the wound, towards the other margin, and the thread is wrapped through the needle with a catheter segment. A “U” was completed bilaterally by returning the thread in
Figure 6. Donor region repair with 3-0 and 2-0 nylon.

Figure 7. Dehiscence at the distal end of the parascapular flap.

Figure 8. Use of the Góes Suture for partial closure of the dehiscence.

Figure 9. Dry necrosis at the distal end of the parascapular flap.
reverse. The two threads on each side were pulled simultaneously, bringing the edges together with a certain point of maximum tension. Through repeated traction, greater skin relaxation and the possibility of partial closure were promoted. This avoided performing a new procedure in a surgical center, which would cause great emotional stress to the patient and higher costs to the institution that maintains it.

The suture proved an efficient method, promoting partial closure of the defect (80% of the dehiscence area), ease, and reduced time to perform in addition to one-time residual defect correction.

CONCLUSION

The suture proposed by Góes et al. proved to complement the parascapular flap in covering the resection of large tumor areas, with the advantages of being low-cost and easy to perform. In addition, skin traction provided satisfactory correction of large postoperative dehiscence using a parascapular flap.

COLLABORATIONS

MR Conceptualization, Realization of operations and/or trials.
LGB Writing - Review & Editing.
FSM Conception and design study, Conceptualization, Final manuscript approval, Methodology, Writing - Original Draft Preparation, Writing - Review & Editing.
BSM Supervision, Writing - Original Draft Preparation.
CMSS Writing - Original Draft Preparation.
LSA Writing - Original Draft Preparation.
MVA Writing - Original Draft Preparation.
LFAO Validation.

REFERENCES


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