

PARASCAPULAR FLAP USED IN THE CORRECTION OF SPINOCELLULAR CARCINOMA IN THE AXILLARY WALL - CASE REPORT

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Abstract: A flap is a segment of tissue transferred from a donor area to a recipient area, in which survival depends on the vascular pedicle of the donor area. The parascapular flap (RPE) has a number of useful applications, such as, for example, repairing excision of malignant skin lesions on the upper limbs, head and neck. This paper reports a case of a 55-year-old male patient with squamous cell carcinoma (SCC) with free surgical margins in the right axillary hollow, with staging T2N3M0. Wide surgical resection of the lesion, axillary lymphadenectomy and immediate repair using RPE were performed, with an oncological and plastic surgery approach. The patient evolved satisfactorily in the postoperative period, being discharged after 24 hours and presenting a good aspect of the surgical wound, with no loss of limb mobility, after the first month of surgery. SCC is the second most common type of skin cancer, its main risk factor is ultraviolet radiation, the location of the lesion being unusual as in the case of the patient. The RPE was described in 1981, has a fasciocutaneous composition, has its pedicle based on the descending branch of the circumflex artery of the scapula, a safe and versatile vascular supply. It is a flap capable of covering extensive defects and of performing the primary synthesis of the donor region, being a good option in cases of great loss of skin lining. The RPE is widely used in plastic surgery, mainly for the correction of lesions in oncological skin surgeries, as it is a safe flap, with good recovery capacity and low risk of complications in the postoperative period, as seen in the case presented here.

Keywords: parascapular flap, oncologic surgery, squamous cell carcinoma.

INTRODUCTION

A flap is a segment of tissue transferred from a donor area to a recipient area, in which survival depends on the vascular pedicle of

the donor area. The parascapular flap is a therapeutic modality used for a number of useful applications, including upper limbs, extremities, head and neck, such as after oncological resection of malignant lesions, such as squamous cell carcinoma (SCC) skin cancer resulting from proliferation malignant growth of keratinocytes of the epidermis or its appendages. This paper reports a case of SCC in the axillary hollow treated with exeresis and parascapular flap operated at Hospital Alcides Carneiro Petrópolis - RJ, the first time being performed by the oncology surgery team and the second time by the plastic surgery team.

CASE REPORT

A 55-year-old male patient reports, 3 years ago, the insidious appearance of a nodular lesion in the right armpit associated with pain and itching symptoms. He sought medical assistance, and a biopsy of the lesion was requested, which showed, at macroscopy, an irregular fragment of skin measuring 1.6 x 0.8 x 0.5 cm, elastic and with a rough and brown surface, concluding with squamous cell carcinoma (CEC) with lesion-free lateral and deep surgical margins.



Figure 1: Clinical appearance of the lesion

Source: Compiled by the Authors, 2023

Chest CT was performed for staging the lesion, with prominent lymph nodes in the right armpit, without the presence of distant metastases, being classified as a SCC stage T2 N3 M0.

After 4 months, he underwent SCC resection in the right axillary hollow axillary lymphadenectomy + right parascapular flap at Hospital Escola Alcides Carneiro, Petrópolis-RJ. The surgery was performed under general anesthesia, with macroscopic delimitation of the lesion and the flap.

In the first operative moment, with the patient in the supine position, the oncological surgery team resected the lesion with circumferential margins of approximately 1 cm, considered free by the intraoperative pathological study. Subsequently, right axillary lymphadenectomy was performed with nerve preservation, and the lymph node chain was sent for histopathological study.

The patient was repositioned in left lateral decubitus for the plastic surgery team to

approach. The parascapular flap was marked, its limits incised to the muscle fascia, and subsequent ipsilateral skin transposition to the region of the skin defect located in the axillary region. Hemovac number 4.8 was positioned in the axillary region and fixed with nylon 2.0. This was followed by synthesis of the recipient axillary bed and the donor area on the back with subcutaneous approximation with vycril 3.0, subdermal approximation with monocryl 3.0 and skin synthesis with nylon 2.0 and 3.0.



Figure 2: Surgical aspect after removing the lesion with a safety margin

Source: Compiled by the Authors, 2023



Figure 3:right axillary lymphadenectomy

Source: Compiled by the Authors, 2023



Figure 4:Parascapular flap marking

Source: Compiled by the Authors, 2023





Figures 5 -7: Incision of the surgical marking and start of making the flap

Source: Compiled by the Authors, 2023



Figures 8-10: Ipsilateral skin transposition and synthesis of the parascapular flap

Source: Compiled by the Authors, 2023



The patient progressed satisfactorily in the ward and was discharged the day after the surgery. He returned to the oncology outpatient clinic after one week, with good healing and no signs of wound infection. One month later, in a new consultation, he presented with a good aspect of the surgical wound and a limb with no loss of mobility.





Figures 11-12: Surgical wound in the axillary hollow after 30 days

Source: Compiled by the Authors, 2023

DISCUSSION

Malignant proliferation of keratinocytes of the epidermis or its appendages is the second most common type of skin cancer and is named SCC. It may arise from precursor lesions such as actinic keratosis, or it may grow spontaneously in normal skin or with chronic inflammatory disorders.⁴ Chronic ultraviolet (UV) irradiation is the most important risk factor, but it has a multifactorial etiology. The tumor is located in 90% of the cases in chronically photoexposed areas such as the head, neck and back of the hands, but in the case of the reported patient, the SCC is located in an area that is not photoexposed, being an unusual case of this histological type. In the reported case, we opted for excision of the lesion with right axillary lymphadenectomy and subsequent creation of a parascapular fasciocutaneous flap.

Flap is a segment of tissue transferred from a donor area to a recipient area, in which survival depends on the vascular pedicle of the donor area.

The parascapular flap, first described in 1982 by Thomaz Nassif, has its pedicle based on the descending branch of the circumflex scapular artery, which, in turn, is a branch of the subscapular artery.¹ It is a safe and reliable vascular supply, it is extremely versatile tool in the plastic surgeon's arsenal. It has been described for a number of useful applications, including cutaneous reconstructions of upper limbs, head, neck, and even esophageal reconstruction. One of the advantages of performing the parascapular flap is the possibility of making it as a fasciocutaneous or osteofasciocutaneous flap. The flap is located in the lateral region of the scapula and is capable of covering extensive defects in addition to performing the primary synthesis of its donor region, being a good option in large losses of skin covering.³ Another important point to be considered is the fact that the parascapular flap usually has good healing evolution of the surgical wound and evolves with low functional morbidity of the limb in which it was performed, allowing patients good musculoskeletal mobility in the late postoperative period.²

In the case reported, skin reconstruction with flap after excision of CPB was effective and safe for surgical correction in the axillary region.

CONCLUSION

The parascapular flap is widely used in plastic surgery to correct lesions in the upper limbs, head and neck. It is shown to be a safe flap with good post-surgical results in terms of limb mobility and clinical recovery of the patient. Its use after oncological skin surgeries is satisfactory and with a low risk of complications, as seen in the reported case.

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