Treatment of Hidradenitis Suppurativa with Extensive Resection of the Lesion and Coverage with Perforator Flaps of the Lateral Thoracic Wall (Lateral Thoracic Artery, Thoracodorsal Artery Perforators)

INTRODUCTION

HS refers to the acute or chronic inflammation of the sweat glands by occlusion, the typical place of appearance is the groin and the axilla, with an incidence of 1% reaching up to 4.1% according to some authors.1–6 Other commonly affected areas are the perianal and perineal region.7 Most patients (64.7%) state that the improvement in their quality of life, as measured by the Dermatological Life Quality Index (DLQI), improved significantly when they underwent invasive procedures rather than taking antibiotics, regardless of the location and extent of resection.7 Even though the gold standard for managing advanced stages of the disease is resection of the affected skin, there is debate about which is the proper technique for coverage. Recent studies have compared the use of the thoracodorsal artery perforator flap (TDAP) versus skin grafts for the reconstruction of axillary defects after resection, finding a better postoperative response (shorter recovery time, fewer complications, shorter follow-up, and a better life quality) in those treated with the TDAP flap rather to those treated with skin grafts only.10 The use of a lateral thoracic artery perforator flap has also been described, demonstrating a rapid recovery without the need to immobilize the arm, with a scar that easily hides behind the arm in a neutral position11,12 or, as in one of our cases, the possibility to hide within the brassiere line.

CASE 1

Case Description

A 38-year-old female patient presents with axillary HS, in whom medical treatments have been exhausted, with a previous history of multiple partial resection of the lesions, resulting in scarring in the axilla with limitation of the range of motion at the shoulder but with frequent relapses of the HS.

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is completely resected. An exploratory incision is made at the upper border of the flap, using loupe magnification, the most suitable vascular pedicle is selected, on this case the lateral thoracic pedicle is used and dissected proximally and tunneled under the skin until the skin paddle sits on the recipient site without tension, the flap is then sutured, making sure that the pedicle has no kinking or twisting that may alter the blood flow to the flap. Primary closure of the donor area is then performed.

The procedure was performed in 2 stages, one for each side.

Two months later, the surgery on the contralateral side is performed in the same manner, but on this case the thoracodorsal perforator is found more suitable and is used for the reconstruction by dissecting it through and beneath the latissimus dorsi muscle.

Two-month postoperative follow-up, no scar retraction and full ROM, with no residual affected tissue (Fig. 2).

**CASE 2**

**Case Description**

A 27-year-old patient with HS, previously managed with multiple antibiotic regimens, without significant improvement.

The patient had a significant negative impact on his life quality with these suppurative lesions, so the DLQI scale was performed before the procedure, reaching the highest score (30), which implies an “extremely large affection of the patient’s quality of life.”

Multiple lesions can be seen in the with foul odor and leakage in the right axilla (Fig. 3).

The perforators from thoracodorsal systems are found 8 cm from the axilla and 2 cm from the posterior axillary line. The area of the lesion is completely resected and the TDAP flap is raised by loupe magnification, dissecting its pedicle until it is long enough for the flap to be tunneled to the recipient site without any tension. The donor area is closed by raising the local skin with primary closure. Same procedure is done at the contralateral side.

At 2 months, the benefits of this type of resection and flap reconstruction are clearly appreciated, with upper limbs with normal ROM, no signs of residual disease, and an acceptable aesthetic result. In addition, a DLQI scale is performed with a score of 0, meaning “no effect on the daily life of the patient.”

**DISCUSSION**

HS is a chronic and debilitating pathology that affects the quality of life of those who suffer it, being the complete resection of the affected area the most effective way to manage it on its most advanced stages. In the axillary area, partial resection or graft coverage can lead to scar retractions with decreasing ranges of shoulder motion and unpleasant scar formation.

Wide resection and reconstruction with pedicled perforator flaps is validated as an alternative with an excellent functional and aesthetic result for the axillary region for HS management, achieving complete remission as a dermatological pathology in the treated area.

We consider that a proper preoperative marking with vascular Doppler, careful dissection of the selected pedicle with loupe magnification, and a tension-free closure of the flap are paramount for a successful reconstruction.
Fig. 3. Flap marked. Donor area with respective perforators and area to be resected.

Fig. 4. Postoperative revision at 2 months. Note no signs of residual disease and shoulder with no retractions or limitations for the movements of his right arm.

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