

INTRODUCTION

Severe skin infections in the cervicofacial region have a profound functional, aesthetic and psychological impact on patients. If medical therapy and conservative treatments fail, surgical management is warranted. The authors present a novel “forklift flap” technique comprised of the left supraclavicular, parascapular, and lateral arm flaps for immediate reconstruction of a case of medically refractory Hurley stage III Hidradenitis Suppurativa (HS) affecting the lower face, submentum, and neck successfully. This reconstruction approach is a valuable addition to the reconstructive surgeon’s armamentarium that can be employed for face and neck resurfacing in severe skin infections.



Figure 1.1: intraoperative pictures of excised atypical cervicofacial Hidradenitis Suppurativa

METHODS

Full thickness excision of the affected tissue was performed, resulting in a defect measuring 16cm x 10cm on each side of the face and 12cm x 8cm on the neck (see Figure 1.1) Expanders were not employed due to multiple areas of active infection that precluded their use. Following excision, the cervicofacial wound was immediately reconstructed using a novel “Forklift flap” composed of the three contiguous flaps: 1) left supraclavicular, 2) left parascapular, and 3) left lateral arm flaps (see Figure 1.2)

The reconstruction was performed with a supercharged supraclavicular flap- based of the left supraclavicular perforator from the left transverse cervical artery, this was kept continuous with the extended left lateral arm flap-based of the left posterior radial collateral artery, see 1.3. The third component of the Forklift flap is a contiguous parascapular flap, supercharged to the right and left facial artery and vein. The extended lateral arm, supraclavicular, and parascapular flaps measured 30cm x 10cm, 33cm x 8 cm, and 53cm x 14cm, respectively. The three flaps were transferred as nylon propeller flaps; the lateral arm being supercharged to and utilized in the reconstruction of the left side of the face. The supraclavicular flap was used in the reconstruction of the neck, and the left parascapular was used to reconstruct the right side of the face. The donor sites of the supraclavicular and parascapular areas were closed primarily and Penrose drains were placed. The lateral arm was closed by delayed primary closure after application of Integra™dermal regeneration template (DRT) ((Life Sciences Corp., Plainsboro, NJ)

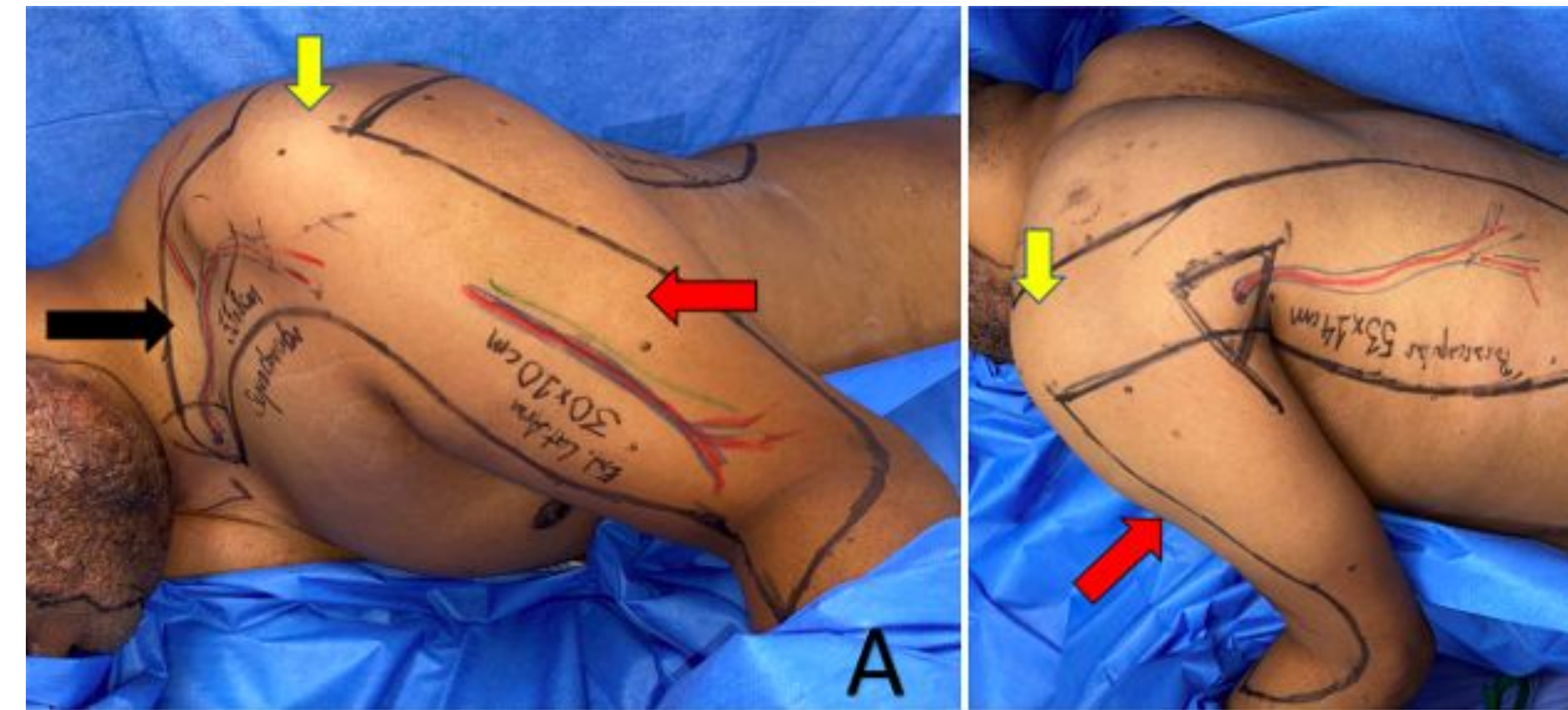


Figure 1.2: Marking of the novel forklift flap with the Supraclavicular flap (Black Arrow, picture A), the continuous extended lateral forearm flap (Red arrow, picture A and B) and base of the contiguous parascapular flap (Yellow Arrow, picture A & B)

Figure 1.3: The supercharged supraclavicular flap-based on the left supraclavicular perforator from the left transverse cervical artery to the facial vessels



Figure 1.4: 10 days post-operative

RESULTS

The patient healed without complications. Five months after the initial procedure, 2000mL liposuction was performed in the Forklift flap (Figure 1.5). Results were stable at 8-month and 12-month post-op visits with no evidence of HS relapse.

CONCLUSIONS

Patients with severe skin infections refractory to medical therapy and conservative management should be offered surgical treatment. Radical excision and immediate flap reconstruction using our described forklift flap technique—comprised of the left supraclavicular, parascapular, and lateral arm flaps—offers a safe and effective reconstruction with satisfactory aesthetic and functional outcomes. This approach is a valuable addition to the reconstructive surgeon’s armamentarium that can be employed for face and neck resurfacing in severe skin infections.



Figure 1.5: 5 months post-operative, following 2,000 mL liposuction removal

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