

SURAL IN THE RURAL: HOW DID WE INCREASE SURVIVABILITY OF THE REVERSE SURAL ARTERY FLAP

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INTRODUCTION:

Soft tissue reconstruction of the lower limb has always been challenging. The reverse sural artery flap (RSAF) has emerged to be a plausible option attributing to its simplicity and feasibility without the need for microsurgery expertise. However, its reliability has been questioned with complications of venous congestion leading to flap necrosis. Here, we put into practice the two-staged technique in creating a flap to increase survivability.

OPERATIVE TECHNIQUE:

During the first stage, a curved scalpel is used, avoiding scissors or diathermy to prevent necrosis of skin edges. Once we're at the fascia, incision is made 1.5cm broader than the skin island (Figure 1) which is sutured to the skin during second stage to prevent shrinkage. The pedicle is cut to almost the same width as the skin flap (Figure 2). A week later, transposition is done with care, avoiding acute angles and applying loose dressing post-operatively while keeping the limb elevated.

DISCUSSION:

Amongst various modifications proposed, the technique resulting in most evident reduction of complications is by venous supercharging which is a technically demanding microsurgical procedure. Delayed procedure has been shown to improve circulation by increasing vessel diameter and allows opening-up of choked vessels during elevation of the flap. Larger pedicle width creation including concomitant veins other than the lesser saphenous vein allows better drainage, thus reducing risk of venous congestion. With other seemingly trivial measures peri-operatively, overall complication rates can be minimized. Even if flap appears necrotic, the underlying structures may still be covered by a viable fasciosubcutaneous layer.

CONCLUSION:

In our setting with limited resources, a staged approach to RSAF with meticulous perioperative measures remains an effective technique in reconstructing lower limb defects.

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