

Letters to Editor

The 'throw over flap': A modification of the propeller flap for reconstruction of non- adjacent soft tissue defects

Sir,

Coverage of small defects in the lower leg, particularly around the ankle presents a challenge to the reconstructive surgeon. Free flaps are the current gold standard. When not feasible an islanded fasciocutaneous flap based on a perforator adjacent to the defect by propeller technique is a good option.^[1] The difficulty arises when there are no appropriate perforators in the adjacent region to base the propeller flap on. We present two cases of significant trauma resulting in the defects on the lateral side of leg and foot. There were no appropriate perforators adjacent to the defect that would allow standard propeller flap to be done. We explored for perforator on the medial side of leg away from zone of injury. A propeller flap was raised in the tissue that was not in continuity with the defect and was rotated (propelled) and thrown over normal tissue to cover the defect. After confirming the lie of the flap, an incision was made in the pathway to accommodate the narrowed bridge segment. This avoided the complexities of free flap and could be performed as a single-stage surgery. Since this is an islanded fasciocutaneous flap on a perforator it maintains the basic standards of propeller flaps.^[2] To the best of the author's knowledge, this modification has not been previously described and we have termed it as a 'throw over flap' based on the technique of transfer.

A 22-year-old male with 7-week-old crush injury leg had wound over the lower lateral aspect of leg measuring 10 × 5 cm. An exploratory incision of 6 cm adjacent to the defect did not reveal any ideal perforator and the incision was closed [Figure 1]. A second exploratory incision was made medially, 10 cm proximal to the medial malleolus; an ideal perforator was identified and isolated [Figure 2]. The propeller flap was planned, islanded and the tourniquet was deflated and the flap checked for vascularity [Figure 3]. The flap was then rotated and 'thrown over' the anterior tibia towards the defect on the lateral side. The normal tissue bridge between the flap and the defect was incised to allow

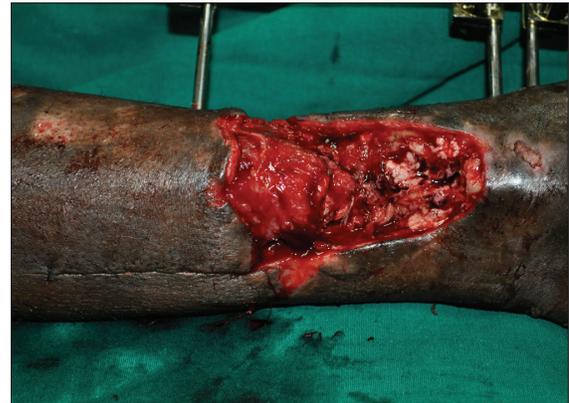


Figure 1: Defect on the lateral side of the leg showing the adjacent exploratory incision which was closed

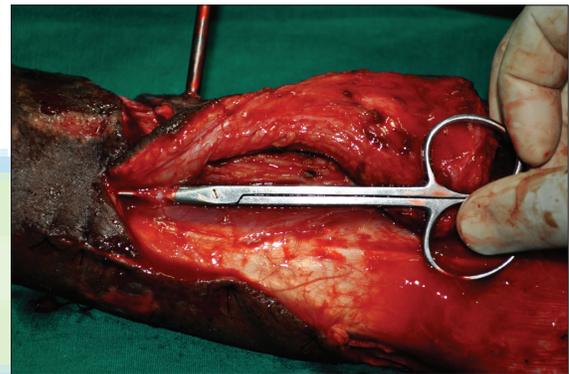


Figure 2: The perforator is isolated on the medial side of the leg in healthy tissue

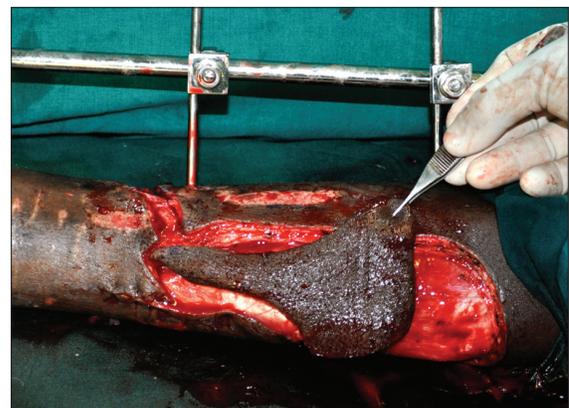


Figure 3: The flap is islanded and the tourniquet is deflated. The vascularity of the flap is assessed

the flap to be inset. Keeping the bridge segment narrow makes it easier to inset just by making an incision and minimal undermining. The donor site was partially closed and the remaining defect covered with split skin graft [Figure 4]. Figure 5 shows the final well-settled flap.



Figure 4: The flap after inset



Figure 5: Post-operative review at three months showing well settled flap

**Babu Bajantri, S. Raja Sabapathy,
Tanya M. Burgess**

Department of Plastic Surgery, Hand Surgery, Reconstructive
Microsurgery and Burns, Ganga Hospital, 313 Mettupalayam
Road, Coimbatore, Tamil Nadu, India

Address for correspondence:

Dr. S. Raja Sabapathy, Department of Plastic Surgery, Hand Surgery,
Reconstructive Microsurgery and Burns, Ganga Hospital, 313,
Mettupalayam Road, Coimbatore - 641 043, Tamil Nadu, India.
E-mail: rajahand@vsnl.com

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