
Use of disposable blade for harvesting epidermal skin graft



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SURGICAL CHALLENGE

Epidermal grafts have been traditionally used in the epidermal cell suspension technique of vitiligo surgery, which is a simple, effective, economical alternative to cultured melanocyte transplantation techniques.¹ They are also gaining popularity as a treatment modality for chronic wounds and nonhealing leg ulcers. Traditionally, instruments like hand dermatome, Humby's knife, or Silvers knife have been used to harvest a graft from the donor area in epidermal cell suspension, while epidermal grafts for wound healing are obtained by various negative pressure suction systems.^{2,3} However, these instruments may not be easily available in resource-poor settings, and they require a fair degree of surgical skills in their handling.

SOLUTION

After cleaning, the required donor area on the lateral thigh or gluteal region is marked and anesthetized with field block with 1% lignocaine or topical anesthetizing mixture of lidocaine 2.5% w/w and prilocaine 2.5% w/w cream under occlusion for ≥ 2 hours. The skin is stretched firmly at one end by an assistant and at the other end by the operator. A sterile, stainless steel razor blade is then mounted on an artery forceps and held firmly, and a thin, even split-thickness graft is harvested by steady and gentle, forward and backward movement of the shoulder (Video 1, available at www.jaad.org). The graft must be thin enough for the impression on the razor blade to be visible through the graft (Fig 1). This is an indicator that the graft obtained is of appropriate thickness without including much of the dermis. Hemostasis is then achieved and the area is dressed in 3 layers using a sterile nonadherent antibacterial dressing (Bactigras; Smith & Nephew Healthcare Limited, London, United Kingdom) and absorbent cotton pad followed by an elastic adhesive bandage (Dynaplast, Banten, Indonesia).

The benefit of this simple modification is that it makes harvesting the graft from the donor area a simple technique to master. It is also economical. The razor blade is easily available, cheap, and can be discarded after a single use; therefore, it can be used as an office procedure as well.



Fig 1. Split-thickness graft harvested by steady movement of a razor blade mounted on artery forceps.

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