

Surgical Glue to Secure Small Split-Thickness Skin Grafts: A Cost-Effective and Time-Saving Technique

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J. Barton Sterling, MD, and John W. Skouge, MD, have indicated no significant interest with commercial supporters.

Split-thickness skin grafts are typically sutured onto the recipient site. Suturing, even when accomplished with a running suture technique, is timeconsuming. A faster and less expensive alternative to suturing is to use N-butyl-2-cyanoacrylate tissue adhesive as a substitute for suture.

Previously, the major limiting factor for using tissue adhesives in skin surgery was cost per application. However, N-butyl-2-cyanoacrylate, now sold under the brand name GluSeal (GluStitch Inc., Delta, BC, Canada), costs as little as \$2.00 per application.

Technique

The split-thickness graft is placed onto the recipient site. Then, it is precisely trimmed to fit the defect. Next, the adhesive is gently applied to the entire perimeter (Figure 1). The adhesive will begin to set in as little as 15 seconds and will be fully set in 60 seconds. A bolster dressing may then be placed over the graft. We prefer Xeroform secured with suture. The adhesive sloughs off over the next week by the time the bolster is removed (Figure 2).

GluSeal adhesive is supplied either as a sterile single-use applicator system or in a multiuse 5-mL bottle with nonsterile applicators. We have used both systems without

a difference in infection rates. Therefore, considering the significant cost savings of the multiuse system, we now use the multiuse bottle exclusively.

The multiuse bottle comes with a sterilizable plastic tray with multiple wells into which the drops of adhesive are placed. A single-use, nonsterile applicator takes up and applies the glue to the graft. For small grafts of 1 to 2 cm in diameter, 2 to 3 drops of glue is all that is necessary. There are approximately 50 to 60 drops of glue/5 mL, which places the cost at \$2 to \$3 per use.

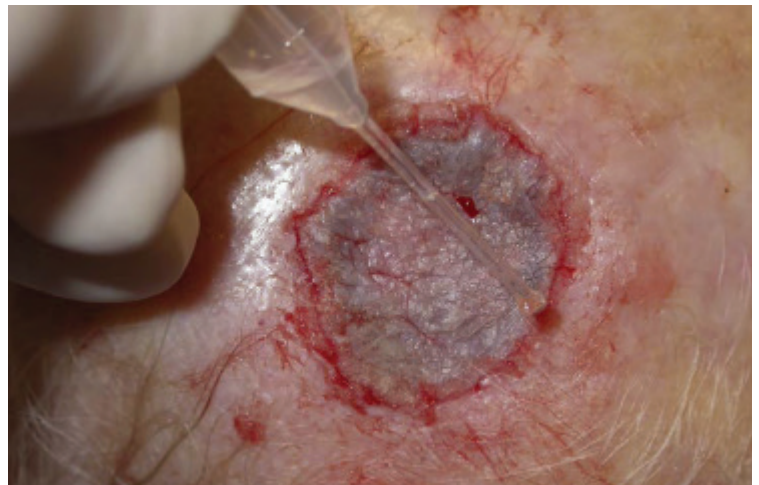


Figure 1. Split-thickness skin graft being glued to crown of scalp.

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