

**Fig. 2.** Split-thickness skin grafts after complete penile skin resection.

sure offers the best functional and cosmetic results, but in many cases, the inflammatory reaction involves a significant area of penile skin. In these cases, tecidual transference becomes necessary.

Since the initial description in 1933, penile splitthickness skin grafts have remained the most successful management technique for the denuded penis. Their technical ease, lack of bulk, and increased survival make them superior to flaps for penile skin replacement.<sup>3</sup>

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## REFERENCES

- 1. Wassermann, R. J., and Greenwald, D. P. Debilitating silicone granuloma of the penis and scrotum. *Ann. Plast. Surg.* 35: 505, 1995.
- 2. Christ, J. E., and Askew, J. B., Jr. Silicone granuloma of the penis. *Plast. Reconstr. Surg.* 69: 337, 1982.

 Armenakas, N., and McAninch, J. W. Genital reconstruction after major skin loss. In J. W. McAninch (Ed.), *Traumatic and Reconstructive Urology*. Philadelphia: Saunders, 1996. P. 715.

# Homolateral Digital Artery Nerve Graft Sir:

Digital nerve injuries are very common in hand trauma. When there is a gap of 1 cm or more, a graft is mandatory. We present a case in which a digital artery segment was used as a graft to restore a homolateral nerve gap.

A 31-year-old man presented with a dog bite injury to the radial side of his right little finger (Fig. 1). On examination, the finger was well perfused, with no sensation on the radial side. Surgery was performed under locoregional block anesthesia and tourniquet control. On exposure of the radial neurovascular bundle, both the digital artery and nerve were injured and a segment of both was damaged. After débridement, the resulting defect between the nerve ends measured 2.2 cm; the contralateral bundle was intact. The digital nerve was reconstructed with a homolateral digital artery segment graft; the artery was ligated and not reconstructed. Nerve graft anastomosis was performed under magnification using an epineural suture technique (Fig. 2). At 6-month follow-up, nerve regeneration was satisfactory, with a rating of S3+ at sensory testing.<sup>1</sup>

Nerve reconstruction in finger injuries has been reported with the use of nerve<sup>2</sup> and vein<sup>3</sup> autografts harvested from the forearm and with the use of a bioabsorbable synthetic guidance conduit.<sup>4</sup> Few articles have described the use of the artery pro nerve graft.<sup>5</sup>

Nerve and vein autografts are preferable to prosthetic materials for reconstructing a nerve gap, but



Fig. 1. A dog bite injury to the radial side of right little finger.



**Fig. 2.** Digital nerve reconstruction with a homolateral digital artery segment graft.

some discomfort results at the donor sites (scars and sensory deficit areas). In the presence of an injured digital neurovascular bundle, after the contralateral artery flow has been checked, we suggest the possibility of using a digital artery pro nerve graft. This technique is easy, quick, and inexpensive, because a graft that is already available is used as a source for nerve reconstruction.

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## REFERENCES

- Medical Research Council. Peripheral nerve injuries. Spec. Rep. Ser. Med. Res. Coun. No. 282, London: HMSO, 1954. Pp. 354-361.
- Higgins, J. P., Fisher, S., Serletti, J. M., and Orlando, G. S. Assessment of nerve graft donor sites used for reconstruction of traumatic digital nerve defects. *J. Hand Surg. (Am.)* 27: 286, 2002.
- Risitano, G., Cavallaro, G., Merrino, T., Coppolino, S., and Ruggeri, F. Clinical results and thoughts on sensory nerve repair by autologous vein graft in emergency hand reconstruction. *Chir. Main* 21: 194, 2002.
- 4. Weber, R. A., Breidenbach, W. C., Brown, R. E., Jabaley, M. E., and Mass, D. P. A randomized prospective study of polyglycolic acid conduits for digital nerve reconstruction in humans. *Plast. Reconstr. Surg.* 106: 1036; discussion 1046, 2000.

 Barcelos, A. S., Rodrigues, A. C., Silva, M. D., and Padovani, C. R. Inside-out vein graft and inside-out artery graft in rat sciatic nerve repair. *Microsurgery* 23: 66, 2003.

# Retrograde Perforator-Based Cross-Leg Fasciocutaneous Flaps for Distal Leg and Foot Defects

Sir: ross-leg fasciocutaneous<sup>1</sup> flaps nowadays are not considered frequently because of the availability of other ipsilateral flaps, such as fasciocutaneous flaps, muscle and musculocutaneous flaps, and free flaps. Nevertheless, they remain a realistic option for the surgeon in needy situations. Conventional cross-leg flaps<sup>2</sup> are either random flaps or axial flaps based on the main axial vessel of the leg. Their disadvantages are their limited dimensions and the need to sacrifice one of the axial vessels of an already traumatized leg. Over the past 14 years, we have used distal perforator-based posterior tibial and peroneal artery cross-leg fasciocutaneous flaps to resurface distal leg and foot defects in 14 cases with redefined indications, such as unsuccessful free flaps, ipsilateral damaged distal perforators, unavailable proximal calf tissue, and inadequate reach of ipsilateral flaps for distal-most defects. The site and position of the perforators had been confirmed earlier by our own cadaveric dissection<sup>3,4</sup> and those of others.<sup>5</sup> Before surgery, they were counterchecked in all cases using handheld Doppler imaging. In a person with average build, the proximal calf provides up to  $22 \times 12$ cm of tissue to cover larger defects. In our cases, the average defect size was  $10 \times 10$  cm. However, we used such flaps even for defects involving the entire sole of the foot  $(21 \times 11 \text{ cm})$  (Figs. 1 and 2).

Because they are based on perforators, these flaps have the following advantages over their predecessors: (1) they are more reliable; (2) no delay is required; (3) the pedicle can be narrowed with greater ease of mobility and transfer; (4) the length of the bridge segment provides controlled mobility between the limbs; (5) cross-legging is avoided; (6) complications, such as joint contracture and stiffness, are minimal; (7) the flaps can be detached safely in a single stage because the primary insetting is greater than 70 percent, so the overall discomfort to the patient and the period of hospitalization are reduced. The absolute contraindication for this procedure is stiffness in either leg, which would prevent suitable positioning, especially in elderly patients.

Since they were first described by Hemilton in 1854, many authors, including Hueston et al., in 1967, Hodgkins et al., in 1980, and Barclay et al.,<sup>1</sup> in 1983, have repeatedly emphasized the significance of these cross-leg flaps, stating that they should not be abandoned simply because other fashionable, sophisticated techniques are available. They have also concluded that the safety and certainty of success outweigh the disadvantages of discomfort and inconvenience. We believe