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# Electrofulguration-assisted dermabrasion for recipient-site preparation in noncultured epidermal cell suspension type vitiligo surgery



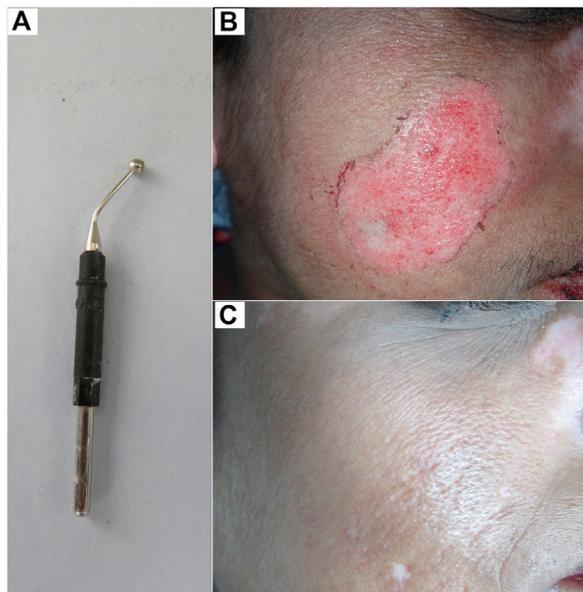
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## SURGICAL CHALLENGE

Manual dermabrasion is a time-tested method for recipient-site preparation in vitiligo surgery (noncultured epidermal cell suspension) but is time and labor intensive and damages the rete ridges.<sup>1</sup> Moreover, achieving repigmentation at peripheries is difficult because the margins cannot be prepared adequately.

## SOLUTION

After adequate cleaning and anesthesia, with the help of a Hyfrecator 2000 (ConMed, Utica, NY) set at low output terminal and monopolar mode and a ball-tip (0.3-cm diameter) electrode bent at 30° (Fig 1, A) and



**Fig 1.** **A**, Ball-tip, 0.3-cm—diameter electrode bent at 30° used to perform superficial electrofulguration. **B**, A vitiligo patch after mild electrofulguration and gentle dermabrasion. The margins of the patch are well prepared, and the area is uniformly dermabraded. Bleeding is almost negligible. **C**, Repigmentation after 2 months.

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emitting a current of ~4-5 amperes, the margins of the patch, including 1-2 mm of the surrounding normal skin, are marked meticulously by performing superficial electrofulguration. This is achieved by gentle skimming of the electrode over the skin surface. The same procedure is then performed over the rest of the patch and requires only a single pass at each part of the skin. This fulgurates the epidermis so that a few light-handed strokes of manual dermabrasion reveal superficial pinpoint bleeding.

The benefit of this technique includes good margin and depth control and uniform preparation of the recipient site (Fig 1, B), which results in more even uptake of the suspension and thereby repigmentation (Fig 1, C). Dermabrasion of convex and concave surfaces (eg, neck, eyelids, and axillae) can also be facilitated, and this technique is time, cost, and labor friendly. Easy availability of the electrofulguration apparatus is an added advantage. The fulgurated epidermis can even be removed with a gloved finger or wet gauze in absence of the manual dermabrader.

Though there are scant reports involving the use of timed surgery and radiofrequency in cutting and coagulation mode previously,<sup>1,2</sup> our method of electrofulguration-assisted dermabrasion is safe and novel and could be used more often.

#### REFERENCES

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