
Creating slits to the right depth: Innovative use of micropore tape for depth control on an 18-gauge needle in hair restoration surgery



Vikas Pathania, MD, and Siddharth Bhatt, MBBS
Pune, India

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SURGICAL CHALLENGE

Creating slits before the implantation of the hair follicles by the so-called *premade slit method* is perhaps the most crucial step in hair restoration surgery, where art meets science. The slits or holes should allow hair follicles to fit snugly into the created cavity and maintain their orientation with regard to diameter, depth, and angle. An ideal instrument used for slit making should include a tailor-made depth control mechanism that depends on the individual follicular graft length of the patient, be inexpensive and disposable to allow for inevitable blunting with use, have a minimum of movable parts to reduce the risk of breakdown during use, and be easy to sterilize. Various instruments and devices have been used in this regard in past. These include 18-, 19-, and 20-gauge needles; Nokor needles (Becton, Dickinson and Company, Franklin Lakes, NJ); Minde knives (A – Zee Surgical, USA); size 11 scalpel blades; designer blades; and self-made blades fashioned from razor blades and held by a needle/blade holder.^{1,2} However, because these contraptions are manufactured generically with standard sizes, they are often fraught with risk of underdepth or overdepth creation, leading to complications such as popping and graft burial, respectively. Some novel instruments, such as the Kolkata slit and the Cutting Edge device (Cutting Edge, Inc, Kimberly, BC), do claim to make slits of different widths, depths, and orientations, but these suffer from the disadvantages of being costly and having movable parts that are likely to break with use.^{1,3}

SOLUTION

We created an inexpensive and novel innovative technique for slit making with tailor-made depth control using an 18-gauge blood transfusion needle and micropore tape as a guard. After follicular extraction, the grafts were placed alongside the beveled end of the needle to determine the approximate average length required, after which micropore tape was wound multiple times over the needle to fashion a soft guard of predetermined depth (Fig 1). The unique advantage of this method is the presence of the micropore soft guard, which leads to minimal trauma to the scalp while the slits are created (Fig 2). Additionally, the contraption meets all of the prerequisite requirements for an ideal instrument: it is inexpensive, disposable, presterilized, and readily available in operating theaters.

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Correspondence to: Vikas Pathania, MD, Armed Forces Medical
College, Pune, Pune, Maharashtra, India 411040. E-mail:
vikascongo@gmail.com.

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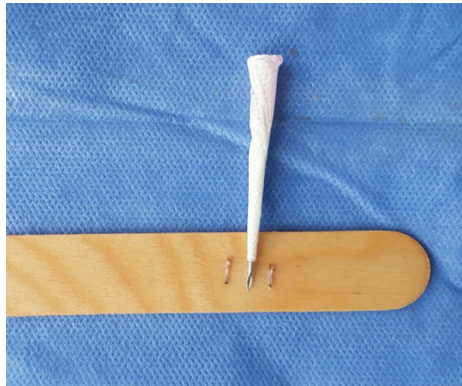


Fig 1. An 18-gauge needle with micropore guard wound based on the average length of an extracted follicle.



Fig 2. An 18-gauge needle with the micropore soft guard in action.

REFERENCES

1. Khanna M. Hair transplantation surgery. *Indian J Plast Surg.* 2008;41(Suppl):S56-S63.
2. Marwah MK, Mysore V. Recipient area. *J Cutan Aesthet Surg.* 2018;11(4):202-210.
3. Rose P. The latest innovations in hair transplantation. *Facial Plast Surg.* 2011;27(4):366-377.