

This new feature will emphasize innovative and better ways to perform dermatologic surgery procedures. This article should be based on some evidence-based literature, but may describe the author's experience with a particular procedure without being a typical clinical research article. The editor will consider ideas for topics. Any author who is considering writing an article should submit the title to Ronald L. Moy, MD, Editor-in-Chief, 100 UCLA Medical Plaza, Suite 590, Los Angeles, CA 90024.

A Simple Device for Incision Retraction and Protection in Endoscopic-Assisted Brow and Forehead Lifting

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BACKGROUND. Endoscopic-assisted cosmetic surgery has revolutionized various procedures. Forehead and brow lifting performed with endoscopic technique has been shown to be predictable and has fewer complications than open techniques. Providing surgical access and protecting the hair follicles is paramount in endoscopically assisted brow and forehead lifting.

OBJECTIVE. To describe a simple retraction device to assist in incision retraction and protect hair follicles.

METHODS. A simple, inexpensive retraction device is described that has been used in 60 endoscopic brow incisions to effectively protect the hair follicles and retract incisions for opera-

tive techniques. In addition, other methods of follicular protection are discussed.

RESULTS. Decreased incisional alopecia and improved surgical access are provided by the use of a simple retraction device and attention to follicular preservation.

CONCLUSION. Endoscopic-assisted brow and forehead lifting is becoming the preferred method of upper facial rejuvenation. There is a steep learning curve and often the lack of attention to hair follicle protection results in localized incisional alopecia. In addition, improper surgical access complicates the procedure. A simple device is described to assist in retraction and follicular preservation.

Over the past decade, endoscopic cosmetic procedures and techniques have developed and endoscopic-assisted brow and forehead lift has become the gold standard, largely replacing open techniques.¹⁻³ Endoscopic-assisted brow and forehead lifting has been shown to be a stable procedure without many of the complications of previous open techniques.^{3,4}

Small 1–2 cm buttonhole incisions are utilized for endoscopic ports and instrumentation access, precluding the need for large incisions that can cause alopecia, paresthesia, and dysesthesia (Figure 1). A central 1.5–2.0 cm midline incision is made 1–2 cm superior to the hairline (incision 1). A 1.5–2.0 cm paramedian incision is made on an imaginary vertical line from the lateral limbus (incision 2) 1–2 cm inside the hairline on each side. This incision corresponds with the area of desired arc of the brow. A third incision is made on each side, perpendicular to an imaginary alar-canthal line (incision 3). This incision is slightly longer, about

2.5 cm, and is made several centimeters inside the hairline and enables elevation of the lateral brow. Failure to protect the endoscopic incisions may result in scarring and alopecia from traction, pulling of the hair, or friction injury from endoscopes or instruments (Figure 2).

The most common method of incision is retraction by the surgical assistant(s). This requires extra hands and crowds the already-small surgical field.

A spring wire eyelid speculum commonly used in ophthalmic surgery is an ideal instrument to gently retract the endoscopic incisions (Figure 3). This apparatus is inexpensive, reusable, very thin, and unobtrusive. After local anesthetic infiltration, the incision is made parallel to the hair follicles with a scalpel and hemostasis is achieved. The eyelid speculum is then inserted in the incision, and due to its spring action is self-retaining (Figure 4). The force exerted is minimal, and in more than 100 endoscopic incisions the author has experienced no alopecia with this device. Other recommended precautions to avoid follicular damage include never pulling on the hair to retract, avoid excessive traction of suspension sutures, using minimal tension on scalp skin sutures, and using bipolar instead of monopolar cautery for hemostasis.

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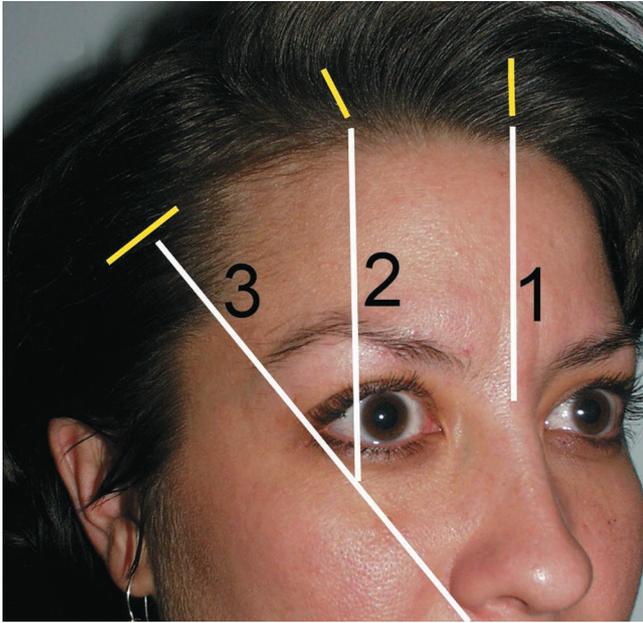


Figure 1. Common incisions for endoscopic brow and forehead lift.



Figure 2. Incisional alopecia from localized trauma to incision margins and hair follicles.

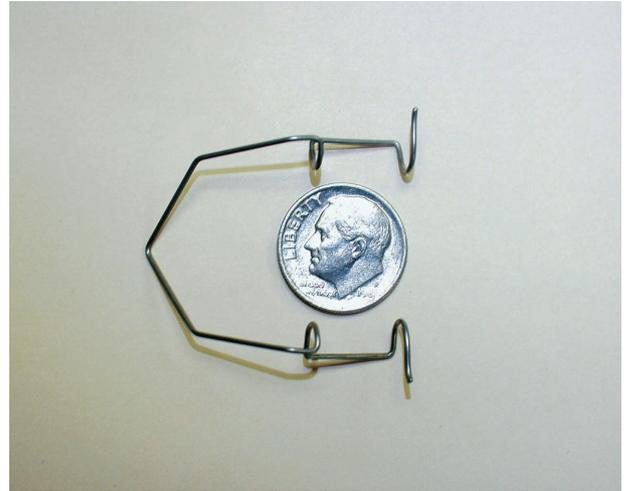


Figure 3. Ophthalmic eyelid speculum utilized as a self-retaining incision retractor.

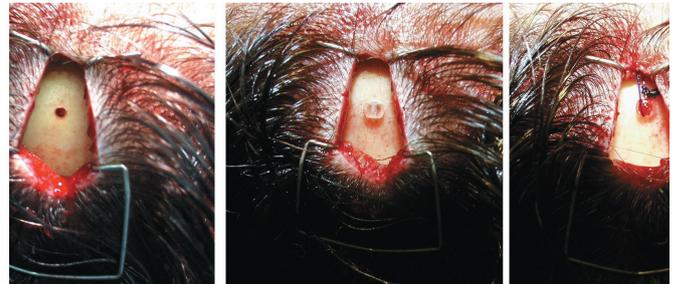


Figure 4. Eyelid speculum utilized to retract endoscopic scalp incisions. This series illustrates the excellent surgical exposure and the placement of a drill hole, a resorbable fixation screw, and a suspension suture.

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