Efficacy and Safety of Endotine Fixation Device in Endoscopic Brow-Lift

A variety of techniques have been described for fixation of the brow-lift. The Endotine forehead device (CoApt Systems Inc, Palo Alto, Calif) is an implantable bioabsorbable fixation device designed to provide multipoint distributed tension for fixation during brow-lift in a rapid manner. It is intended to provide the surgeon with unique flexibility in both the degree of fixation and vectors of pull. In addition, it is designed to allow for relaxation during the procedure to make adjustments to brow position. Herein, I report retrospectively the cases of 31 consecutive patients who underwent endoscopic brow-lift using the Endotine forehead fixation system.

Methods. The surgical technique has been described elsewhere.1 Patients scheduled for endoscopic brow-lift were evaluated with standardized photographs taken preoperatively, again at 1 to 3 months after surgery (hereinafter, early postoperative photographs), and finally after a minimum of 6 months after surgery (hereinafter, later postoperative photographs). The degree of brow elevation was measured bilaterally at the midpupillary line and lateral canthus, as previously described by Sidle et al.2 Standardized photographs were taken in the photography suite at the facial plastic surgery clinic at Johns Hopkins University Hospital (Baltimore, Md), using a digital single-lens reflex camera (model S1 Pro; Fuji Photo Film Co Ltd, Tokyo, Japan) and Mirror imaging software (Canfield Scientific Inc, Fairfield, NJ). The change in brow position was noted for each of the 4 sites in comparison with baseline in the early and later postoperative photographs (Figure 1).

Patients were questioned about their experience with the brow-lift in terms of their overall satisfaction with the results and were specifically questioned regarding the implants themselves.

Results. Thirty-one consecutive patients who underwent endoscopic brow-lift with the Endotine brow fixation devices were included in the study. No surgical complications occurred. One patient reported mild tenderness to palpation at the site of 1 Endotine device that persisted for approximately 3 months after surgery. A revision was planned for 1 patient, who experienced lack of fixation of 1 brow in the immediate postoperative period.

Measurements were obtained within the prescribed early and later postoperative periods in 14 patients. Measurable loss of elevation from the early to the late postoperative periods was seen in 28 of 56 measurement points (left and right lateral canthi, left and right midpupillary). The amount of brow descent shown in the early postoperative photographs compared with the later ones at each of these points ranged from 0 to 2.4 mm. The average descent of the measured points was 0.65 mm.

Patient satisfaction was high. Self-reported questionnaires were obtained from 22 patients. Three reported having some tenderness of the implants. One found the palpable nature of the implants bothersome. All patients reported being very satisfied with the procedure (Figure 2).

Comment. I have found the Endotine system to be quite effective, safe, quick, and easy to use. The fixation is well maintained over time. A key advantage is the ability to adjust the brow position and contour during the procedure (Figure 3). It has been my experience that minimal loss of elevation—

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Figure 1. Method of brow elevation measurements. The distance from standard reference points, in millimeters, recorded bilaterally. A, Preoperative measurements. B, Early postoperative measurements. C, Late postoperative measurements.
less than 1 mm on average—tends to occur using this device with adequate release. Thus, one should seek to achieve the ideal brow position without overcorrection.

Concern has been raised regarding the Endotine system owing to the protrusion of the implants and the potential for this being troubling to the patients. This
Placement of a Lateral Nasal Suspension Suture Via an External Rhinoplasty Approach

Multiple surgical methods to improve external nasal valve collapse have been described.1-3 Some techniques, such as alar batten grafts, have resulted in varying and sometimes unreliable degrees of improvement with potentially undesirable nasal widening. Likewise, overlay cartilaginous grafts may contribute to significant changes in cosmetic appearance. One recently described technique for nasal valve collapse that avoids these concerns is the use of lateral suspension.4,5 However, this technique has been described as an approach that requires external incisions at the alar-facial junction or on the cheek near the infraorbital rim, or through a transconjunctival approach. Herein, we describe placement of the lateral suspension suture through an external approach as an adjunct to functional nasal surgery, avoiding facial incisions and providing superior exposure for placement. Improved functional outcomes are also measured.