The Eyelid Crease Incision for Dermoid Cysts of the Eyebrow in Pediatric Patients

To the Editor:

We read with interest the article by Senchenkov and Clay[1] in the December 2005 issue of *Annals of Plastic Surgery*. Dermoid cysts are common eyebrow lesions in the pediatric population, and many of these are excised with an incision directly over the lesion. The authors describe the removal of dermoid cysts located in the lateral eyebrow using a subgaleal endoscopic approach where the surgical incisions are placed behind the temporal hairline, thereby avoiding a visible scar near the eyebrow. While this approach is certainly effective in relocating the incisions to an inconspicuous location, the authors fail to mention the potential risks associated with endoscopic procedures in this area of the face. Possible injury to the facial nerve, limited operative space for surgical manipulation, and peri-incisional alopecia are some of the disadvantages familiar to all surgeons experienced with endoscopic forehead surgery.

An alternative approach for dermoid excision that should be considered is using an eyelid crease incision similar to that used in upper eyelid blepharoplasty or blepharoptosis repair.[2,3] This approach also avoids the visible scar associated with the brow incision by camouflaging the incision in the eyelid fold (Fig. 1). The eyelid crease approach is straightforward, familiar to facial plastic surgeons performing eyelid procedures, does not require specialized equipment or instrumentation, and provides excellent exposure and operative space to dermoid lesions in the eyebrow area, even when the lesion is well above the brow or located superomedially. Esthetics is an important component for all facial procedures in children, and we feel that the eyelid crease approach provides excellent results without the disadvantages associated with endoscopic surgery. We ask the readers to consider the eyelid crease approach as another esthetically superior technique for the excision of dermoid cysts in pediatric patients.

FIGURE 1. One week postoperative after excision of a dermoid cyst on the right brow using an eyelid crease incision. There is only slight erythema and edema of the eyelid, and the incision is well hidden in the eyelid fold.

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Avoiding Free Nipple Grafting in Gigantomastia With the Inferior Pedicle Technique

To the Editor:

The groups of Lacerna et al[1] and Gerzenshtein et al[2] ought to be commended for their significant contributions to our knowledge of the value of the inferior pedicle technique, in particular in patients with gigantomastia. The adaptations and modifications of the original technique that were adopted or developed by both groups in avoiding free nipple grafting in these often challenging cases is of special interest. A few technical factors, some mentioned in passing, some perhaps avoided due to conflicting evidence, do warrant attention as they may not only contribute to the good esthetic results obtained but also stimulate further research.

Determining the New Nipple-Areola Complex (NAC) Position

Both groups wisely recommend positioning the nipple, in patients with gigantomastia, at a lower level than conventionally recommended. When the new position of the upper border of the (reduced and displaced) areola is planned, the 2 points of reference normally taken into consideration are the position of the inframammary fold in the prone patient and a point which Penn[3] used to refer to as the "ideal nipple plane," situated just below the midhumeral point. Although cognizance should be taken of these 2 points, it is nevertheless advisable to plan the upper border of the areola of the reduced breast not higher than 20–21 cm from where the line from the suprasternal notch intersects with the (usually occasionally slightly diverging) midclavicular line in patients with gi-

gantomastia. Siting the upper border of the NAC lower than 20 cm has 2 advantages:

- there is less traction on the pedicle as the distance of displacement is 1–2 cm less than with a standard reduction, and
- there is less risk of the unenviable appearance of a high-riding NAC secondary to lower-pole (including pedicle) ptosis in the long term.

However, care has to be taken not to site the areola too low, leaving the breast with a reduced but somewhat ptotic appearance. Ptosis, defined as a nipple at or lower than the inframammary fold,[4] was seen in some cases reported in early publications.[5]

Designing a slightly larger diameter of the "new" areola of no less than 42 mm, as was recommended by Lacerna et al,[1] has 2 advantages:

- Aesthetically and optically, a slightly larger areola is in better proportion to the breast as a whole.[6]
- Should a small, full-thickness part of the areola be lost, sufficient areolar tissue will remain available for reconstruction; despite all precautions, the risk of partial NAC necrosis remains.

An areola that is relatively too large (usually more than 46–50 mm) for the upper slot of the keyhole pattern may contribute to an inverted nipple postoperatively.

The true value of de-epithelialization of the pedicle (also known as the Schwarzman[7] maneuver), which is not always clearly expressed in the standard works of reference, is the protection and preservation of the subdermal venous plexus. Numerous studies have focused on and emphasized the arterial blood supply to the NAC. Yet, elegant in vitro and in vivo studies on the microcirculation of flaps, incidentally first reported by the senior author of the Gerzenshtein group[8] and subsequently others,[9] have conclusively demonstrated the more pernicious effect of venous insufficiency alone compared with arterial insufficiency alone or combined arterial and venous insufficiency. Few studies have specifically addressed the anatomy of the venous system: Schwarzman[7] designed his maneuver specifically to preserve what he termed the *circulus venosus* of the areola and radiating veins and not, as is so commonly believed, to improve the blood supply to the areola. Cunningham,[10] in his comprehensive review of the veins of the breast, distinguishes between a deep and a superficial system and observes that: "Blood passes from the deep to the superficial system by way of short connecting veins which are especially numerous near the edge of the areola." Ricbourg[11] also recognizes 2 venous plexuses: one runs parallel to the arterial blood supply and the other superficial, subcutaneous and anastomotic not only with the deep plexus but also with all of the surrounding regions. He stresses that this latter plexus, which is "quiescent under normal conditions, becomes functionally important . . . after correction of mammary hypertrophy." It follows that if, the effects of a reduction in the numbers of deep veins due to block resection and postoperative edema in the remaining veins in the pedicle are taken into consideration, a greater demand is placed on the superficial venous plexus. There seems to be neither an anatomic nor a physiological basis for performing a procedure such as deskinning, which places the all-important superficial venous drainage and superficial sensory nerves at risk. Timewise, deskinning saves, on average, 5 minutes only.[12] Furthermore, both, Farina et al[13] and Sarhadi et al[14] have emphasized
the subcutaneous course of the sensory nerve branches, particularly as they approach the areola.

Pedicle Position, Traction and Sensation

The views expressed by Lacerna et al[1] regarding factors important in the preservation of nipple sensation are concurred. In addition, the medial border of the pedicle can be positioned so that its base lies at approximately one-third of the total width from the center point and the rest laterally to that point, in an effort to include as many branches of the IVth intercostal nerve as possible.[13,14] Both studies indirectly support the finding of Schlenz et al[15] that postoperative changes in NAC sensitivity is technique, rather than size-of-reduction dependent.

Intraoperatively and immediately postoperatively, a long, floppy pedicle is inclined to slide all over, usually laterally in the supine patient, dragging the NAC with it and causing nipple retraction. Careful tensionless anchoring with nonabsorbable material at a height of 8–10 cm from the origin of the pedicle will, to a large extent, diminish this drag. Particular care must be taken not to create a tight tension band horizontally across the pedicle. This is, without any doubt, a temporary measure only, not designed and executed with the notion that it will assist in the breast maintaining a projected shape indefinitely. I concur with McKissock,[16] who stated: "The thought that suturing the inferior pedicle to the chest wall will suspend the breast for a prolonged period of time is naive. It is a continuously recurring concept perpetuating wishful thinking rather than unbiased observation." Anchoring is, however, a useful temporary measure in those cases presenting with a long, slippery pedicle, which causes excessive drag on the NAC.

The groups of Lacerna and Gerzenshtein are thanked for demonstrating that the inferior pedicle technique remains an appealing option in the treatment of gigantomastia.

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Conchal Grafts for Closure of Palatal Fistulae

To the Editor:

Initially described in a case report by Matsuo et al[1] in 1991 and later extensively studied by Ohsumi et al[2] in 1993, the use of conchal cartilage to close palatal fistulae is not new. Reported fistula closure rates using conchal cartilage secured using a variety of methods range from 54%–91.7%.[1–4] This compares very favorably with reported successful fistula closure rates using conventional palatal flaps. We have been using conchal grafts to repair small fistulae and small recurrent fistulae since 2001. Fistulae that are symptomatic for speech or nasal regurgitation of fluids constitute our indications for surgery.

Between August 2001 and June 2005, 14 children (10 boys and 4 girls) with a mean age of 9 years (range, 2–18 years) underwent closure of their palatal fistulae using conchal cartilage grafts. The primary pathology was a complete unilateral cleft lip and palate (7), bilateral cleft lip and palate (3), isolated palatal clefts (3), and one had an iatrogenic hard palate fistula, which resulted from surgical correction of choanal atresia. All patients were operated by 1 or both of the authors. All 14 cases had slitlike fistulae (range: 2–3 mm wide and 2–23 mm long), with 5 involving the anterior hard palate, 6 mid hard palate, and 3 at the hard-soft palate junction. Five were recurrent (failed palatal flaps); 4 of these were unilateral cleft lip and palate and 1 bilateral cleft lip and palate.

The mean follow-up was 16 months (3–48 months). Thirteen patients had complete healing with associated symptomatic improvement. One had graft loss with a recurrent fistula (the iatrogenic hard palate fistula). It was noted that she had poor oral hygiene at the time of fistula repair. In cases where it was difficult to ascertain if there was a small leak postrepair, dilute barium was instilled in the nose as previously described.[5] No significant donor-site morbidity was noted.

Our technique is similar to those already described, albeit with a few subtle differences. We always harvest a large conchal graft with perichondrium (often the entire concha) via an anterior approach. Once under general anesthesia, and after some hydrodissection in the area around the fistula with a local anesthetic solution, the edges of the fistula are pared using an ophthalmic crescent knife similar to that used by Jeffery et al.[3] A large, circumferential submucoperiostial pocket is then created to allow a large contact area for the graft, which will extend at least 5 mm on either side of the fistula where possible; hence, the need for a large graft. Wherever possible, an attempt is made to close the nasal lining using a 5/0 Vicryl on a P3 needle, with the knot placed on the nasal surface. The graft is trimmed to create a snug fit and then placed into the pocket, with the curve of the concha following the normal concavity of the hard palate. The palatal mucosa is then closed where possible, or at least an attempt is made to do so. In all but the most anterior fistulae (particularly in the bilateral cleft lip and palate), where wide circumferential cover is more difficult to achieve, we have not found it necessary to suture the graft in place to either the nasal or palatal lining, nor do we use any intraoral bolster type of dressing as has been previously described.[2] In these very anterior fistulae, the graft is tacked to the palatal mucosa to prevent dislodgement.

The operation is quick,[3] simple, easily learned and taught, and very effective in closing small/slitlike fistulae. One also avoids the dissection needed to raise substantial palatal flaps to cover even small fistulae. We wish to remind readers about this useful technique which, in our opinion, should be the treatment of choice to close small, slitlike, symptomatic palatal fistulae. Oral hygiene should be addressed prior to surgery being undertaken to avoid graft loss.

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An Instrument for Precise Cartilage Excision in Nasal Septal Surgery

To the Editor:

The operation of septoplasty is commonly performed for, and is effective in, relieving mechanical nasal obstruction due to a deviated nasal septum.[1] It can be undertaken in isolation or as part of septorhinoplasty. As this procedure has evolved, the operative emphasis has shifted from performing extensive submucous resections to max-

FIGURE 1. A diagrammatic illustration of the instrument used.

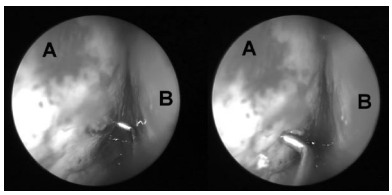

FIGURE 2. Endoscopic view of the instrument in use. A, Septal cartilage. B, Mucoperichondrial flap.

imal cartilage preservation.[2,3] This requires excision of precise amounts of deviated cartilage, performing tension-relieving chondrotomies and occasional cartilage scoring.

A Freer, and less commonly a Cottle, elevator is commonly used to perform cartilage incisions. Given their configurations, however, they are not equally effective in all planes of incision and could potentially create unpredictable cartilage fracture lines. They may also cause inadvertent contralateral mucosal tears through excessive pressure being applied, particularly by untutored hands. To address these problems, we have developed a simple instrument by modifying an existing otological tool (Fig. 1).

The instrument is used to create lines of incision and areas of cartilage scoring as required. This is made possible because the sharp tip of the instrument lies at right angles to the handle, thereby allowing incisions to be made in all planes with economy of movement and application of minimal force (Fig. 2). The narrow profile of the instrument also improves visibility of distal structures. These considerations may be of particular interest to surgeons in training as they become acquainted with the mechanical properties of septal tissue and the forces which can safely be applied. Once all incision lines have been made, a Freer elevator can then be used to develop the contralateral plane and free up the deviated cartilage. This allows for optimal restoration of function while removing the minimum necessary amount of nasal cartilage. A separate potential application of this instrument could be in scoring cartilage during an otoplasty procedure.

We recommend the use of this modified instrument as a simple, cost-effective, and reliable method of improving the precision of cartilage-preserving septal surgery.

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New Technique for Injecting Corticosteroid in Keloids Scarring

To the Editor:

The treatment of keloid scarring with intralesional injection of corticosteroids is probably the most common modality used and has been the gold standard.[1,2]

Injection through a thick scar is usually difficult, and a high pressure is often necessary. Surgeons face multiple problems such as needle displacement, spray of syringe content, etc. The insulin syringe, electric syringe pump,[3] and many other devices have

FIGURE 1. Filling of cartridge with corticosteroids.

FIGURE 2. Dental syringe and cartridges filled with corticosteroid.

been used to counter these problems. We have devised a new technique of injecting keloid with triamcinolone using a dental syringe.

The cartridge of the dental syringe can be emptied partially or fully and refilled with the desired amount of drug/chemical. Once loaded, the needle can be screwed in and secured. The metal body and handle of the syringe make handling much easier and grip firmer.

The dental syringe gives better control and secured needle connection and is easier to handle. As a result, the injection procedure can be shorter and the distribution even, and it is less hassle to the surgeon and more tolerable for the patient.

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