
Letters and Viewpoints

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- Figures/Tables—no more than two figures and/or one table

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LETTERS

MAXIMIZING THE USE OF THE ABDOMINOPLASTY INCISION IN TERMS OF RECONSTRUCTIVE SURGERY, AS WELL

Sir:

We read with great interest the article entitled "Maximizing the Use of the Abdominoplasty Incision" (*Plast. Reconstr. Surg.* 113: 411, 2004) by Steven G. Wallach, as well as the discussion by Jaime Planas (*Plast. Reconstr. Surg.* 113: 418, 2004).

Performing additional procedures in conjunction with abdominoplasty using the same particular incision is a time-sparing and cost-effective technique. It also decreases the morbidity rate of multiple surgical interventions performed on separate occasions.¹ We would like to suggest taking skin grafts from the

discarded abdominal tissue as another procedure. These skin grafts may be preserved and used as homografts after test results for human immunodeficiency virus and hepatitis have been shown to be negative. They may as well be processed and preserved to obtain acellular dermal grafts.

Treatment of burns, especially in developing and underdeveloped countries with limited financial health appropriation, is a real difficulty. In many countries, cadaver homografts cannot be obtained because of religious and legal issues. The high cost of synthetic materials, such as artificial skin substitutes, makes it nearly impossible to use such substances. When sufficient autograft tissue is not available, especially for large and deep burns, homograft skin may be the choice, at least as a temporary dressing. Use of skin homografts from amputation specimens is an accepted procedure. Processed homograft skin obtained from tissue banks can also be used for this purpose. Acellular dermal grafts whose native frameworks are maintained can be used for soft-tissue defects and augmentation and as filling agents.²⁻⁴

We appreciate the authors' approach in terms of cosmetic surgery. We also believe skin grafts obtained from discarded abdominal tissue during abdominoplasty may thus serve various purposes in reconstructive surgery and should be considered as a concomitant procedure.

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REFERENCES

1. Wallach, S. G. Maximizing the use of the abdominoplasty incision. *Plast. Reconstr. Surg.* 113: 411, 2004.
2. Uzunismail, A. Alternative homograft skin sources. *Burns* 20: 187, 1994.
3. Rudolph, R., Earle, A. S., and Fratianna, R. B. Reduction mammoplasty and other skin excisions as sources of homograft skin. *Br. J. Plast. Surg.* 28: 121, 1975.
4. Ashley, F. Foreskin as skin grafts. *Ann. Surg.* 106: 252, 1937.

REPLY

Sir:

Thank you for allowing me the opportunity to respond to Dr. Duman, Dr. Fındık, and Dr. Uzunismail's letter regarding my article, "Maximizing the Use of the Abdominoplasty Incision" (*Plast. Reconstr. Surg.* 113: 411, 2004), and their sug-

gestion to maximize the abdominoplasty incision in terms of reconstructive surgery.

Harvesting cadaveric skin for future homograft use or for processing to create acellular dermal grafts has been a mainstay of treatment for burn victims. Interestingly, Drs. Duman, Findik, and Uzunismail suggest harvesting skin from the discarded pannus of abdominoplasty patients as a source of these grafts. Of course, patients must give informed consent for its use, and then the graft must be properly processed and screened.¹

On the other hand, during the abdominoplasty, the resected abdominal pannus should not be discarded before the operation has been completed. It may be needed as a "lifeboat" just in case the "ship goes down."² For instance, if there is undue tension after closure and the flap appears ischemic, some sutures may need to be released. Under this circumstance, skin harvested from the excised pannus may be used as a temporary dressing over the exposed lower abdominal fascia until a later time when definitive closure can be performed.

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REFERENCES

1. Kearney, J. N. Quality issues in skin banking: A review. *Burns* 24: 299, 1998.
2. Greenwald, D. Don't burn your bridges or where's the lifeboat? *Plast. Reconstr. Surg.* 109: 386, 2002.

PROSPECTIVE ANALYSIS OF THE OUTCOME OF SUBPECTORAL AUGMENTATION

Sir:

We read with interest the article regarding the outcome of subpectoral breast augmentation with respect to sensory changes, muscle function, and body image.¹ We commend Banbury et al. for their scientific approach to this study. We would, however, like to ask the authors to clarify the surgical technique used for these patients with respect to the incision, approach, and degree of pectoralis muscle division used, which we believe has a profound bearing on the interpretation of the results of this study.

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REFERENCE

1. Banbury, J., Yetman, R., Lucas, A., Papay, F., Graves, K., and Zins, J. E. Prospective analysis of the outcome of subpectoral augmentation: Sensory changes, muscle function, and body image. *Plast. Reconstr. Surg.* 113: 701, 2004.

REPLY

Sir:

I wish to thank Drs. Chester, Hodgson, and Khanna for their questions regarding our article on the outcome of subpectoral breast augmentation. I do agree that the degree of division of the pectoralis muscle may have affected the outcome.

Five surgeons performed the operations, so there may have been some variability in the exact technique used. Generally, however, the pocket was dissected to the extent that was required for the size of the implant. The surgeons do not completely divide the muscle inferiorly, and even with larger implants, they at least try to keep the fascia intact.

We did compare large implants with small ones, and the results were the same. In 22 of 47 patients, a balloon dissector was used. There was no difference when these two groups were compared. Thirty-four patients had inframammary incisions, eight had axillary incisions, and five had circumareolar incisions. There were no differences in these groups, but the numbers are obviously small.

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SAFETY OF KETAMINE/DIAZEPAM ANESTHESIA

Sir:

Dr. Robert Ersek's report of more than 30,000 procedures performed under ketamine/diazepam anesthesia over a 35-year period without a single case of deep vein thrombosis or pulmonary embolism¹ raises some questions. How were the patients screened for deep vein thrombosis, a condition that can be clinically silent? How many of the 30,000 patients had ventilation/perfusion scans, venous duplex studies, or computed tomography pulmonary angiograms? Several studies²⁻⁶ have estimated the incidence of deep vein thrombosis in the general population to be from five to as many as 20 cases per 10,000 individuals. This would suggest that at least approximately 15 of Dr. Ersek's 30,000 patients had deep vein thrombosis at the time of surgery, irrespective of the anesthetic regimen.

Did the absence of deep vein thrombosis come at the expense of other complications? Dr. Ersek postulates that ketamine eliminates deep vein thrombosis in part by decreasing platelet aggregation. Surely in performing 30,000 operations using a platelet-inhibiting drug there was a greater than usual incidence of intraoperative bleeding or postoperative hematoma. These numbers must be taken into consideration in evaluating the safety of this anesthetic regimen.

It would be interesting to know how the records of these tens of thousands of patients, whose treatment by several physicians spanned more than three decades, were reviewed. In commenting on one of the references⁷ cited by Dr. Ersek, Dr. Rod Rohrich, the new editor of this *Journal*, and Dr. Jose Rios stated, "Although it is difficult to forget a patient with postoperative deep vein thrombosis and pulmonary embolism, the study based its conclusions primarily on physician memory. This is an inadequate method on which to base any

conclusions on the true incidence of deep vein thrombosis and pulmonary embolism . . . ”⁸

In the introductory paragraph of his report, Dr. Ersek disparages anecdotal information in evaluating controversial topics, yet he places great significance on a couple of thromboembolic complications experienced by patients of former associates who used anesthetic techniques different from his own. In this regard, we would all do well to remember the words of Edzard Ernst, who observed that “[t]he plural of anecdote is not scientific information.”

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REFERENCES

1. Ersek, R. A. Dissociative anesthesia for safety's sake: Ketamine and diazepam—A 35-year personal experience. *Plast. Reconstr. Surg.* 113: 1955, 2004.
2. Fowkes, F. J., Price, J. F., and Fowkes, F. G. Incidence of diagnosed deep vein thrombosis in the general population: Systematic review. *Eur. J. Vasc. Endovasc. Surg.* 25: 1, 2003.
3. Heit, J. A., Melton, L. J., III, Lohse, C. M., et al. Incidence of venous thromboembolism in hospitalized patients vs community residents. *Mayo Clin. Proc.* 76: 1102, 2001.
4. Hansson, P. O., Welin, L., Tibblin, G., and Eriksson, H. Deep vein thrombosis and pulmonary embolism in the general population: “The study of men born in 1913.” *Arch. Intern. Med.* 157: 1665, 1997.
5. Nordstrom, M., Lindblad, B., Bergqvist, D., and Kjellstrom, T. A prospective study of the incidence of deep-vein thrombosis within a defined urban population. *J. Intern. Med.* 232: 155, 1992.
6. Kearon, C. Epidemiology of venous thromboembolism. *Semin. Vasc. Med.* 1: 7, 2001.
7. Reinisch, J. F., Bresnick, S. D., Walker, J. W. T., and Rosso, R. F. Deep venous thrombosis and pulmonary embolism after face lift: A study of incidence and prophylaxis. *Plast. Reconstr. Surg.* 107: 1570, 2001.
8. Rohrich, R. J., and Rios, J. L. Venous thromboembolism in cosmetic plastic surgery: Maximizing patient safety. *Plast. Reconstr. Surg.* 112: 871, 2003.

REPLY

Sir:

Thank you for the opportunity to review Dr. Pechter's comments. I am pleased that he has read my article and has raised some questions. Unfortunately, the very essence of the article has been missed. The question in the article is, why would anyone subject a healthy patient who is going to have elective aesthetic surgery to general anesthesia with all of its concomitant, well-known, and well-published complications, including deep vein thrombosis and subsequent pulmonary embolism, chipped teeth, vocal cord injuries, perforation of

viscera, hypoxia, postoperative nausea and vomiting, and so on, when all of these can be eliminated from one's practice by the safe, simple use of Valium and ketamine dissociative anesthesia? Dr. Pechter's specific questions are addressed below.

1. *How were patients screened for deep venous thrombosis?* We did not screen our patients for deep venous thrombosis. Dr. Pechter claims that deep venous thrombosis can be clinically silent. Well, if it is silent, who cares? It does not matter if someone had it before, during, or after surgery if it has no symptoms. The fact that a sophisticated method may show that there is a thrombus in a small vein somewhere is of no significance if it is indeed silent. Specifically, we did not perform ventilation perfusion scans or duplex studies or computed tomography pulmonary angiography any more than any of our colleagues would do such things on a routine basis. If Dr. Pechter's suggestion is true, that at least 15 of our 30,000 patients had deep venous thrombosis at the time of surgery, perhaps it is time for one of our research study grants to include an evaluation of the protective effect of Valium and ketamine dissociative anesthesia for not only avoiding the venous stagnation that causes deep venous thrombosis but also protecting against or preventing even previous existing or nascent deep venous thrombosis. What a giant step forward that will be.

2. *Did the absence of deep venous thrombosis come at the expense of other complications?* Dr. Pechter suggests that I have postulated that ketamine eliminates deep venous thrombosis by decreasing platelet aggregation. That is not my work. That work was published in the anesthesia literature, and since platelet aggregation is one of the causes of deep vein thrombosis and subsequent pulmonary embolism, it seems reasonable that, when added to the absence of flaccidity in the soleus muscle, the platelet inhibition would be an additional cause for this protective effect, as mentioned above. We have seen no increased incidence of bleeding, infection, or other postoperative complications. We very carefully examine all of our patients postoperatively and keep very extensive records, not only in our outpatient facility but also as a result of our certification by the American Association for Accreditation of Ambulatory Surgery Facilities.

From the records of the tens of thousands of patients over three decades, I can tell you with absolute certainty that I have not signed a death certificate since 1979, the year I started private practice. Consequently, we have never had a deep vein thrombosis or pulmonary embolism in any of our patients, all of whom are seen 3 or 4 days postoperatively, 1 week postoperatively, and a few weeks postoperatively. Any doctor who has ever had a deep vein thrombosis in a patient remembers it forever, because it is a painful, agonizing event. Of course, it goes without saying that the death would be remembered. Dr. Pechter is concerned about the plural of anecdote not being scientific information. Well, of course not, and I have used no anecdote. The only anecdotes are the ones that he has put forth, for alas, “science is that branch of accumulative knowledge that is constantly expanding due to observation and experimentation.” My review of the 30,000 cases is observation of the highest form, and the inclusion of my trusted colleagues in this work is further observation.

An anecdote, according to *Webster's Dictionary of the English Language* (Lexicon Publications, Inc., New York, N.Y., 1987), “is a short account of an interesting or amusing incident or event, often biographical.” Alas, we have here 30,000 events,

so that it cannot be anecdotal by definition. Further, “the word anecdotal comes from the Greek, *anekodota*, things not published.” Thus, given the fact that he read it in our wonderful publication, which is made to disseminate scientific observations and experimentations, ipso facto, it is not anecdotal. Nevertheless, I appreciate Dr. Pechter’s comments. I am also pleased to have another opportunity to suggest that my colleagues save the lives of their patients by avoiding general anesthesia when it is not necessary.
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DIAGNOSIS OF PILOMATRIXOMA IN CHILDHOOD

Sir:

The article by Ashkan Pirouzmanesh et al., entitled “Pilomatrixoma: A Review of 346 Cases” (*Plast. Reconstr. Surg.* 112: 1784, 2003), has kindled our interest. We agree with the authors that the appropriate diagnosis for pilomatrixoma can be made by a clinical examination and that the features of this tumor make routine evaluation by means of imaging studies unnecessary.

Although pilomatrixoma has been properly defined over the years, it is frequently still misdiagnosed. Previous studies and the above-mentioned article by Pirouzmanesh et al. have shown that the rate of preoperative diagnostic accuracy of pilomatrixomas is less than 49 percent.¹⁻⁴ In our opinion, this phenomenon could be attributed to the lack of familiarity of general pediatricians with this tumor. Most case reports are documented in the dermatology and otolaryngology literature, so general pediatricians may not be familiar enough with the condition to consider it in the differential diagnosis.

In one of our studies conducted in the period from 1996 to 2002, we observed that of 83 patients with pilomatrixomas, only 15 (18 percent) were erroneously diagnosed. Seven of the 15 were diagnosed as having epidermal inclusion cyst, three as having hematoma, two as having dermoid cyst, one as having brachial cleft remnants, and two as having unidentified masses. The criteria with which we believe a distinction could possibly be made between a common benign mass and pilomatrixoma are as follows: age of the patient, size of the mass, appearance of the overlying skin, and features on palpation. Diagnosis is suspected based on palpation of a superficial rock-hard nodule. Stretching the skin over the tumor may show the “tent sign,” with multiple facets and angles.

However, we recommend ultrasound studies only in the case of an anomalous appearance or deep location or when the tumor is positioned adjacent to other organs, such as the parotid gland. Computed tomography and magnetic resonance imaging are costly, require sedation or general anesthesia, and are relatively invasive methods and therefore are unnecessary.

Finally, we have come to the same conclusion as the authors that the preferred treatment is surgical excision with

clear margins, to avoid recurrence, which may occur if the tumor is not completely resected.
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REFERENCES

1. Agarwal, R. P., Handler, S. D., Matthews, M. R., and Carpentieri, D. Pilomatrixoma of the head and neck in children. *Otolaryngol. Head Neck Surg.* 125: 510, 2001.
2. Danielson-Cohen, A., Lin, S. J., Hughes, C. A., An, Y. H., and Maddalozzo, J. Head and neck pilomatrixoma in children. *Arch. Otolaryngol. Head Neck Surg.* 127: 1481, 2001.
3. Punia, R. P., Palta, A., Kanwar, A. J., Thami, G. P., Nada, R., and Mohan, H. Pilomatrixoma: A retrospective analysis of 18 cases. *Indian J. Pathol. Microbiol.* 44: 321, 2001.
4. Lan, M. Y., Lan, M. C., Ho, C. Y., Li, W. Y., and Lin, C. Z. Pilomatrixoma of the head and neck: A retrospective review of 179 cases. *Arch. Otolaryngol. Head Neck Surg.* 129: 1327, 2003.

NASAL OSTEOTOMIES: A CLINICAL COMPARISON OF THE PERFORATING METHODS VERSUS THE CONTINUOUS TECHNIQUE

Sir:

I read the article by Dr. Joe M. and Katie M. Gyskiewicz¹ with interest, since I utilized both the “continuous technique” (internal) and the external percutaneous perforation technique with fine 2- to 3-mm osteotomies for many years and on thousands of patients, as illustrated in my book, *Cosmetic Facial Surgery*.² As the years went on, I used the percutaneous technique almost exclusively.

It is always pertinent to point out historical origins of such techniques, lest they be lost with repetition in the ongoing literature. I learned the percutaneous external puncture technique by observing Dr. Clarence R. Straatsma of New York City in 1958. He used this external approach with a 2-mm osteotome almost exclusively, but as far as I know, he never published it. Incidentally, Dr. Straatsma was a well-respected and talented plastic surgeon who trained with Dr. Ferris

Smith and was a member of the founding group of the American Board of Plastic Surgery.
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2. Rees, T. D., and Wood-Smith, D. *Cosmetic Facial Surgery*. Philadelphia: Saunders, 1974. Pp. 426-427.

VIEWPOINTS

TREATMENT OF THE LOWER THIRD OF THE NOSE AND DYNAMIC NASAL TIP PTOSIS WITH BOTOX

Sir:

We have found an effective and nonsurgical method for reducing dynamic tip ptosis, excessive upper lip shortening, and the appearance of a midphiltrum crease using Botox (botulinum toxin type A; Allergan, Inc., Irvine, Calif.). Surgical methods for correction of these defects, while effective, require downtime and a significant healing period.¹ A nonsurgical alternative treatment using Botox is an attractive option for those who cannot afford the time or expense of surgery.

A dependent, elongated nasal tip, frequently paired with a short curling upper lip, is often exaggerated with smiling. This phenomenon has been described by Rohrich et al.² in defining the functional unity of the inferior third of the nose. The muscular forces affecting this area are the paired depressor septi nasi and the levator labii superioris alaeque nasi muscles during animation and at rest.

The tip is drawn caudally by the contraction of the paired depressor septi nasi muscles, resulting in tip ptosis that is exaggerated with animation. This muscle originates on the medial crura to interdigitate with fibers from the orbicularis oris. Concurrently, the lip and alar insertion is elevated by the actions of the labii superioris alaeque nasi. This muscle originates on the frontal process of the maxilla and inserts on the skin of the ala and upper lip. Acting together, the paired depressor septi nasi and levator labii superioris alaeque nasi muscles cause the nasal tip to be drawn downward and the alar base and lateral lip to be pulled cephalad. The nostrils are directed in a downward direction, and a snarl-like appearance can result. Secondary effects include a midphiltrum crease and excessive gummy show.

After 5 U of Botox were placed into each depressor septi nasi and 3 U were placed into each levator labii superioris alaeque nasi muscle, the excessive action of these muscles was attenuated at a 2-week follow-up. The nasal tip became less ptotic with a maximal smile effort, and the alar insertion remained in a more neutral position (Fig. 1). The nasolabial angle opened up from 110 to 115 degrees. Frontal views taken with the patient performing a relaxed natural smile show a relative lengthening of the upper lip, decreased midphiltrum creasing, a less snarled appearance, and a more horizontal base position (Fig. 2). The same frontal view with the patient



FIG. 1. Lateral views of the patient animating the face with a maximal smile effort, before (left) and after (right) therapeutic injections. Note the improvement in nasolabial angle, the more neutral position of the alar insertion, and the decreased "snarling" of the upper lip.

performing a forced, full smile demonstrates that the base continues to have a more horizontal position with less tip ptosis (Fig. 3). Patient satisfaction was high and there were no side effects, specifically no oral incompetence or speech difficulties.

We have found Botox to be an effective and simple method for temporarily treating the ptotic nasal tip. We are currently evaluating a series of patients to assess the reliability of this method.

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REFERENCES

1. Arregui, J. S., Elejalde, M. V., Regalado, J., Ezquerro, F., and Berrazueta, M. Dynamic rhinoplasty for the plunging nasal tip: Functional unity of the inferior third of the nose. *Plast. Reconstr. Surg.* 106: 1624, 2000.
2. Rohrich, R. J., Huynh, B., Muzaffar, A. R., Adams, W. P., and Robinson, J. B. Importance of the depressor septi nasi muscle in rhinoplasty: Anatomic study and clinical application. *Plast. Reconstr. Surg.* 105: 376, 2000.



FIG. 2. Frontal views of the patient animating the face with a relaxed, normal smile, before (*left*) and after (*right*) therapeutic injections. Note the more neutral position of the alar insertion, the decreased tip ptosis, the absence of the upper lip crease, and the lengthening of the upper lip.



FIG. 3. Frontal views of the patient animating the face with a maximal smile effort, before (*left*) and after (*right*) therapeutic injections. Note the more neutral position of the alar insertion and the decreased tip ptosis.

THE NASAL ALAR ELEVATOR: AN EFFECTIVE TOOL IN THE PRESURGICAL TREATMENT OF INFANTS BORN WITH CLEFT LIP

Sir:

The asymmetric shape of the nose in cleft lip patients is caused by the alar base being displaced laterally on the affected side, which gives the nose a widened and flattened look. There is decreased projection with lateral displacement of the alar dome and a deviation of the columella and the septum.¹ The nose deformity is usually corrected at the time of primary lip repair.²⁻⁴ However, the alar cartilage responds to nonsurgical correction, when it is performed during the first weeks of life, and various stents have been presented to correct the nasal deformity preoperatively.⁵⁻¹² In addition, lip taping effectively narrows and remodels the alveolar arch as

well as mobilizes soft tissues, thereby positively affecting the nasal shape.¹³

To improve and simplify the presurgical treatment of the nasal deformity, we developed the nasal alar elevator, which we have used since 1989. It consists of a stainless steel wire covered with a silicone tube (Fig. 1), and is made in different sizes by our dental technician to secure a precise fit to the nostril. The elevator is fixed with surgical tape to the forehead, and the tension put on the elevator is adjusted by repositioning this tape until the skin above the nostril shows a slight blanching.

Twenty-five babies with a unilateral complete cleft lip were included in this study. The patients were seen by the cleft palate team within the first week after birth, when facial impressions were taken. The parents were instructed on how to apply the nasal alar elevator and the lip tape. The patients were followed

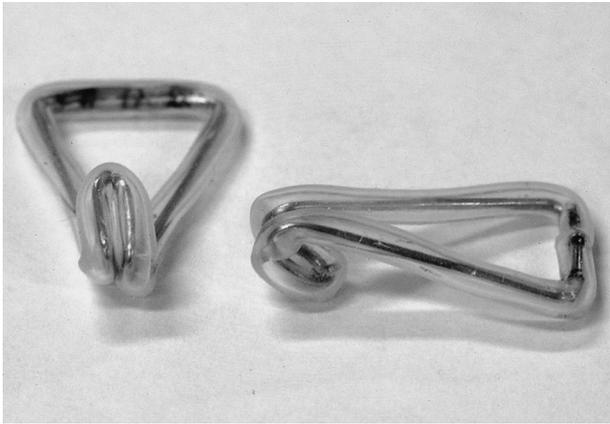


FIG. 1. The nasal alar elevator is made of a stainless steel wire covered with a silicone tube.

up until the time of the operation, at around 3 months of age, when new facial impressions were taken (Fig. 2). Standardized photographs were taken of casts made of each impression mold, and measurements of the columella angle and the nose angle were made on the photographs (Fig. 3). The results were analyzed using the paired, two-tailed Student *t* test.

By using the nasal alar elevator, the columella angle was corrected by a mean of 22 degrees, from a mean of 42 degrees to a mean of 64 degrees ($p < 0.001$). The nose angle was not significantly altered, with a mean of 76 degrees to 78 degrees. The relative width of the nose was generally perceived to be narrowed by the nasal alar elevator treatment, with a simultaneous lengthening of the columella (Fig. 2).

Our results show that by using the nasal alar elevator, a large gain is obtained with regard to shape and "straightening" of the nose. The nose angle, however, is not altered. In some cases, even if the shape of the nose is significantly improved, a remaining, small nasal deformity will have to be corrected at the time of primary lip surgery.

The nasal alar elevator has been used effectively by our team to correct the nasal deformity in all types of cleft lips. Depending on the deformity, one can use one or two elevators, with uneven tension put on them if needed. It is important that the treatment be initiated early, since the cartilage of the alae is "moldable" only during the first weeks of life,^{8,12,14} and that it be continued until the time of the operation. Earlier presented stents have several drawbacks, such as the need for a nasal floor or a construction that requires repeated adjustments and corrections of the molding.^{7,8} The nasal alar elevator, on the contrary, can be used without a need for anatomic prerequisites, and adjustments can easily be carried out at home. The treatment is generally well tolerated, and we seldom experience any adverse reaction to the tape. If that occurs, one has to treat the irritated skin for a couple of days before reapplying the elevator. The elevator also facilitates breathing through the nose. Another advantage is the possibility of continuing the treatment during the first postoperative phase, to support the alae during the initial, wound-healing process. We believe that the positive results of using the nasal alar elevator make the nasoalveolar molding plate more or less redundant.

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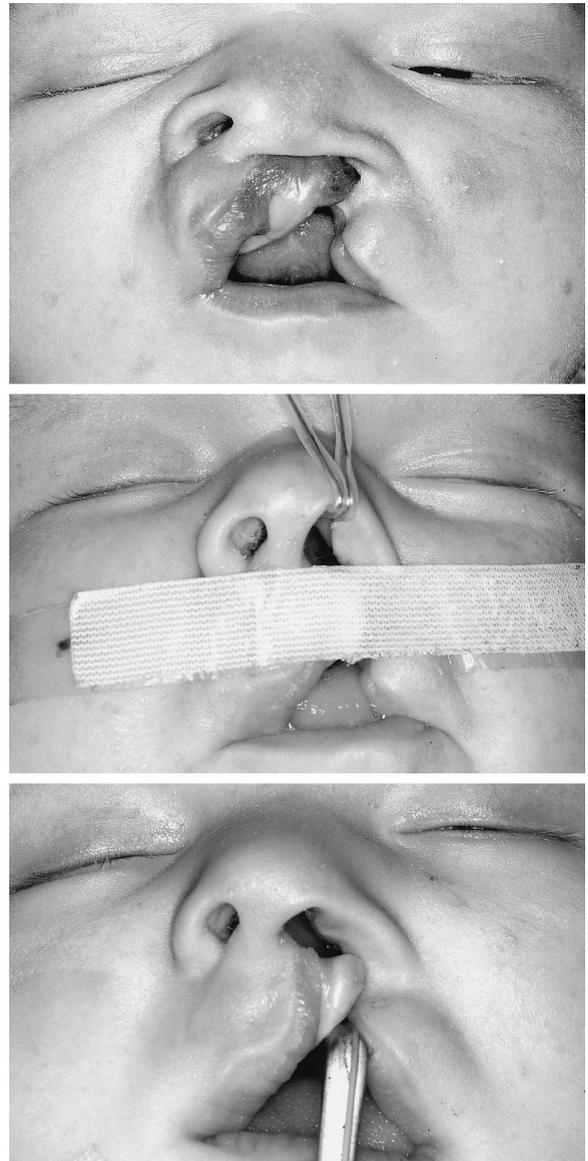


FIG. 2. Frontal views of an infant with a complete unilateral cleft lip (*above*) before application of the elevator and lip tape, (*center*) during the presurgical treatment, and (*below*) at the time of primary lip repair (at 3 months of age).

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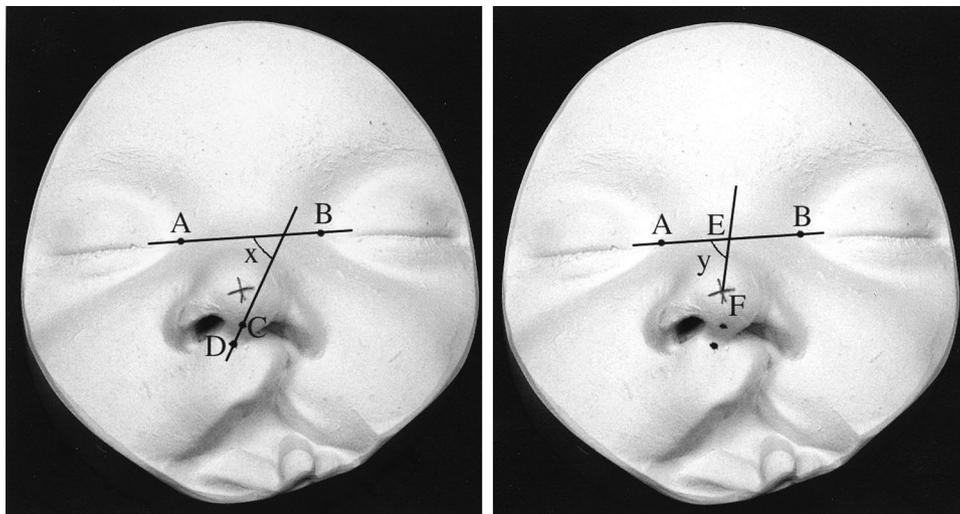


FIG. 3. Frontal views of a cast taken at the time of primary lip repair. (Left) The columella angle x is the angle between the intercanthal line (A-B) and the midline of the columella (C-D). (Right) The nose angle y is the angle between the intercanthal line (A-B) and the line drawn from the center of the intercanthal line to the point of the highest projection of the nose (E-F).

REFERENCES

1. LaRossa, D. Unilateral cleft lip repair. In C. A. Vander Kolk (Ed.), *Plastic Surgery: Indications, Operations, and Outcomes*, Vol. 2, 1st Ed. St. Louis: Mosby, 2000. Pp. 755-767.
2. Millard, D. R., Jr., and Latham, R. A. Improved primary surgical and dental treatment of clefts. *Plast. Reconstr. Surg.* 86: 856, 1990.
3. McComb, H. K., and Coghlan, B. A. Primary repair of the unilateral cleft lip nose: Completion of a longitudinal study. *Cleft Palate Craniofac. Surg.* 33: 23, 1996.
4. Shih, C. W., and Sykes, J. M. Correction of the cleft-lip nasal deformity. *Facial Plast. Surg.* 18: 253, 2002.
5. Friede, H., Lilja, J., and Johanson, B. Lip-nose morphology and symmetry in unilateral cleft lip and palate patients following a two-stage lip closure. *Scand. J. Plast. Reconstr. Surg.* 14: 55, 1980.
6. Matsuo, K., Hirose, T., Otagiri, T., and Norose, N. Repair of cleft lip with nonsurgical correction of nasal deformity in the early neonatal period. *Plast. Reconstr. Surg.* 83: 25, 1989.
7. Grayson, B. H., Santiago, P. E., Brecht, L. E., and Cutting, C. B. Presurgical nasoalveolar molding in infants with cleft lip and palate. *Cleft Palate Craniofac. Surg.* 36: 486, 1999.
8. Maull, D. J., Grayson, B. H., Cutting, C. B., et al. Long-term effects of nasoalveolar molding on three-dimensional nasal shape in unilateral clefts. *Cleft Palate Craniofac. J.* 36: 391, 1999.
9. Bennun, R. D., Perandones, C., Sepliansky, V. A., Chantiri, S. N., Aguirre, M. I., and Dogliotti, P. L. Nonsurgical correction of nasal deformity in unilateral complete cleft lip: A 6-year follow-up. *Plast. Reconstr. Surg.* 104: 616, 1999.
10. Cobby, T. D. D., Orlando, A., Page, K., and Mercer, N. S. G. Modification of the Koken nasal splint. *Cleft Palate Craniofac. J.* 37: 125, 2000.
11. Grayson, B. H., and Cutting, C. B. Presurgical nasoalveolar orthopedic molding in primary correction of the nose, lip, and alveolus of infants born with uni-

- lateral and bilateral clefts. *Cleft Palate Craniofac. J.* 38: 193, 2001.
12. Da Silveira, A. C., Oliveira, N., Gonzalez, S., et al. Modified nasal alveolar molding appliance for management of cleft lip defect. *J. Craniofac. Surg.* 14: 700, 2003.
13. Pool, R., and Farnworth, T. K. Preoperative lip taping in the cleft lip. *Ann. Plast. Surg.* 32: 243, 1994.
14. Matsuo, K., Hirose, T., and Tonomo, T. Nonsurgical correction of congenital auricular deformities in the early neonate: A preliminary report. *Plast. Reconstr. Surg.* 73: 38, 1984.

HOW TO FIND A FOREIGN BODY: WIRE GRID TECHNIQUE

Sir:

In the last few years, I have seen two patients who had stepped on sewing needles that broke in half and one patient with a BB pellet in the masseter muscle. The first patient had undergone two aborted operations. The second patient, with a needle in the big toe, was told that looking for this needle could take hours and be fruitless (Fig. 1). I won a dinner bet with an ear, nose, and throat surgeon when I got the BB out in very short order using an intraoral approach. Here is the method: (1) Cut some thin intermaxillary fixation wires about an inch in length. (2) Mark the patient with lines onto which the wires will be *exactly* taped for radiographs to be taken at right angles to the wires (the patient or family member can do this) (Fig. 2). (3) Use the grid to mark the position of the foreign body. The local injection needle can often be used to hit the foreign body for exact positioning (Figs. 3 and 4).

For the BB pellet in the masseter, I placed three 27-gauge, 1½-inch needles perpendicular to the mandible for the anteroposterior image. The vertical and horizontal wires for the two lateral images showed me almost exactly the position of the BB.

So the next time someone comes in with lousy pictures and a radio-opaque mass, set yourself up for success, and look like Androcles removing the thorn from the lion's paw.

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FIG. 1. The radiographs the patient came in with were useless, except for showing the needle.

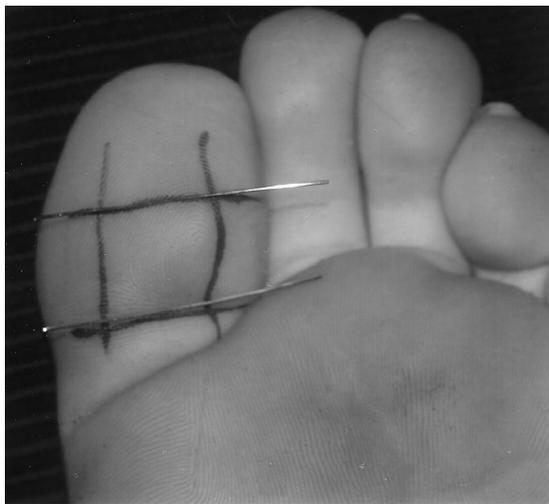


FIG. 2. The toe is marked and the needles are placed to show the parent how to tape them exactly for perpendicular radiographs (the other toe was used as an example). This view shows the horizontal wires. A second radiograph is taken for the vertical wires, and a third radiograph is taken directly horizontal with a wire running along the side (not shown).

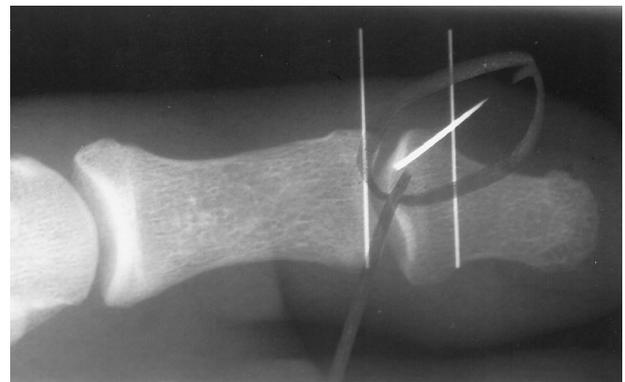


FIG. 4. Radiograph showing the horizontal wire.

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FIG. 3. Radiograph showing the two vertical wires on the plantar surface. The side wire is also present.

A TECHNIQUE TO CORRECT SEVERE ECTROPION

Sir:

In cases of considerable ectropion, especially if its origin is iatrogenic (as a result, for example, of an operation for the correction of entropion), the sole technique of canthoplasty is not necessarily sufficient to solve the problem, as we recently observed in three of our patients. In fact, a chronic inflammatory process is often established that involves the entire palpebral rim, thus weakening the tarsus as well and consequently compromising its resistance. In these cases, therefore, a method is used, such as bandages, to keep the eyelid lifted to reduce inflammation, so that a reconstructive canthoplasty can be performed or a rigid support, a type of



FIG. 1. The patient had undergone an operation for ectropion at another institution. To correct the lower right eyelid, in addition to using our described technique, since cutaneous tissue was also lacking, we carried out a transposition flap of the upper eyelid, which also partially covered the graft.



FIG. 2. Example of our technique with a piece of paper used to mimic the dermal graft.

cartilaginous graft, can be applied to fix it to the palpebral rim to hold it up.

These treatments are extremely valid, but the first type requires a lengthy preparation time and presents an increased possibility of relapse. The second type, which is more invasive, sometimes offers a less satisfying aesthetic result because of the thickness of the cartilage and its greater consistency in comparison with the palpebral rim itself.

Therefore, to obtain both a satisfactory aesthetic appearance and a functional result, we started using a dermis graft removed from the preauricular or retroauricular area—but any other area can be utilized—to adequately support the eyelid. The extension of the graft can vary, but it must be enough to support the third mediolateral part of the eyelid. It is approximately triangular, so that it can be fixed with stitches of Vicryl or nylon proceeding from one side of the tarsus and the orbital ligament and ending up on the periosteum of the orbital rim. The position where the graft is fixed onto the periosteum corresponds to the one where the



FIG. 3. Six-month postoperative view.

tarsus would be replaced during a canthoplasty operation. Generally, two or three stitches are required for anchorage (Figs. 1 and 2).

In cases where the result is not adequate, more suitable placement can easily be achieved by moving the palpebral margin with a forceps until the best position has been identified. It is also interesting to note that by using this technique, it is absolutely not necessary to perform a canthotomy. Thus, the trauma of the operation is reduced. In addition, because of the intense vascularization of the area where the graft is inserted, the graft integrates perfectly, taking advantage of its characteristics of elasticity and resistance. Thus, it substitutes for the damaged tarsal ligament on the one hand, and on the other hand it provides valid support of the orbital ligament so that the entire eyelid can be placed in an excellent position.

We have treated three patients (bilaterally) using this technique. A year after the first two operations were performed, the result obtained in all of these patients was extremely satisfying and there was no relapse. Therefore, we believe that it is of interest to report this technique, even though the number of patients treated was limited, because of its easy application and the satisfactory result obtained (Fig. 3).

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BIO-ALKAMID: AVOIDING THE LEAK

Sir:

Bio-Alkamid is a new "filler" being used for facial rejuvenation and soft-tissue augmentation. It was recently approved for use in Israel by the Ministry of Health. Since its

approval, we have used Bio-Alkamid in numerous patients for both applications with excellent results. A major problem encountered is a leak of the filling material immediately after injection. To avoid this, we inject the Bio-Alkamid through a long subcutaneous tract using the full length of the injection needle (18 gauge, 3.8 cm long). However, when the needle is pulled out, the highly viscous filler creates a tract from the pocket of the injected Bio-Alkamid, along the needle route, to the outer skin. This tract is a port of infection and causes "leakage" of the viscous material. Moreover, when the leaking material is cleaned, it is further pulled out from under the skin because of its high viscosity.

To avoid this, we present a simple yet useful solution. When we finish injecting the Bio-Alkamid, we disconnect the syringe from the needle, leaving the needle in place. A 1-cc syringe with normal saline is then connected to the needle and 0.5 cc of normal saline is injected through the needle. The Bio-Alkamid remaining in the needle is thus pushed out to join the bulk of the injected filler. When the needle is withdrawn, no Bio-Alkamid fills up the tract and the long subcutaneous tract collapses, thus isolating the injected material.

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SUBCUTANEOUS FAT NECROSIS OF THE NEWBORN

Sir:

Subcutaneous fat necrosis of the newborn is an uncommon, benign disorder characterized by multiple indurated plaques or nodules with or without erythema over the trunk, arms, buttocks, thighs, and cheeks of full-term newborns in the first several weeks of life. Many lesions become calcified or fluctuant with liquefied fat. Mild atrophy of the skin may be noticed after resolution. The exact pathophysiology of the disorder is not known, but it may be initiated by ischemic injury, hypoxia, or hypothermia.^{1,2} Many affected neonates have had perinatal asphyxia or difficulty in labor and delivery.^{3,4} It is postulated that cold or stress-induced injury to immature fat results in the development of solidification and necrosis.^{4,5}

The patient was a full-term infant girl weighing 3500 g born with difficulty at labor via cesarean delivery as a result

of moderate fetal distress. Her Apgar scores were 2 and 8 at 1 and 5 minutes, respectively. On the fifth day of life, she was hospitalized with fever and vomiting and diagnosed with sepsis. Hemoculture was performed and antibiotic treatment was initiated. On the sixth day of life, erythematous, edematous, taut, large plaques appeared over her buttocks. There was also a 1.5-cm-diameter necrotic bulla over her left buttock (Fig. 1, *above, left*). These lesions were painless and not warm to the touch. The preliminary diagnosis was subcutaneous fat necrosis. On the ninth day of life, she became thrombocytopenic, with a platelet count of 11,000/mm³. Her platelet count remained low and she was transfused with 1 U of platelets. She became thrombocytopenic again 3 and 5 days later and required 2 U of platelets. The thrombocytopenia resolved after the third transfusion. On the tenth day of life, the infant's lesion progressed on her back; it became fluctuant, and necrotic fat content was spontaneously drained. After spontaneous drainage, two surgical drainages were performed. On the fourteenth day of life, her skin necrosis became more pronounced, despite drainage (Fig. 1, *above, right*). Surgical intervention was thought to be appropriate to decompress the mass, alleviate the pain, and minimize the skin necrosis. The fat necrosis was drained and the skin necrosis was excised (Fig. 1, *center, left*). The resulting defect was repaired with a split-thickness skin graft (Fig. 1, *center, right*). Intraoperatively, a biopsy specimen of the lesions demonstrated fat necrosis with abundant histiocytes and lipocytes, with radially arranged needle-shaped clefts under light microscopy (Fig. 1, *below*).

Her serial serum calcium and glucose levels were in normal ranges during hospitalization. Her back recovered completely. The infant was discharged after 1 month of hospitalization. Her triglyceride level was obtained for the first time during the sixth week of life and was found to be elevated to 187 mg/dl (normal, 32 to 99 mg/dl). It remained high for 2 months, peaking at 289 mg/dl. Her total serum cholesterol level was within the normal range.

Subcutaneous fat necrosis of the newborn usually runs a self-limited course, but it may be complicated by hypercalcemia and other abnormalities (hypoglycemia, hypertriglyceridemia, and thrombocytopenia). Hypercalcemia, if it occurs, begins in children aged 1 to 2 months. Significant morbidity (seizures, blindness, and failure to thrive) and even death (from infection and cardiac arrest) can result from the associated hypercalcemia.⁶⁻⁸

The main clinical differential diagnosis is sclerema neonatorum, a rare disease of the newborn characterized by a diffuse hardening of the subcutaneous adipose tissues. As such, it is distinct from the localized lesions of subcutaneous fat necrosis. In addition, it is associated with prematurity and grave prognosis.^{9,10}

The aim of treatment of subcutaneous fat necrosis of the newborn is to prevent and manage complications. Large and fluctuant nodules may be aspirated to prevent rupture, infection, skin necrosis, and scarring.⁶ In our patient, although repeated aspirations were carried out, skin necrosis developed and had to be excised. The resulting defect was repaired with a split-thickness skin graft. A reconstructive procedure was conducted in the treatment of this patient, and to our knowledge, this is the first case in which this procedure was carried out in the treatment of fat necrosis.

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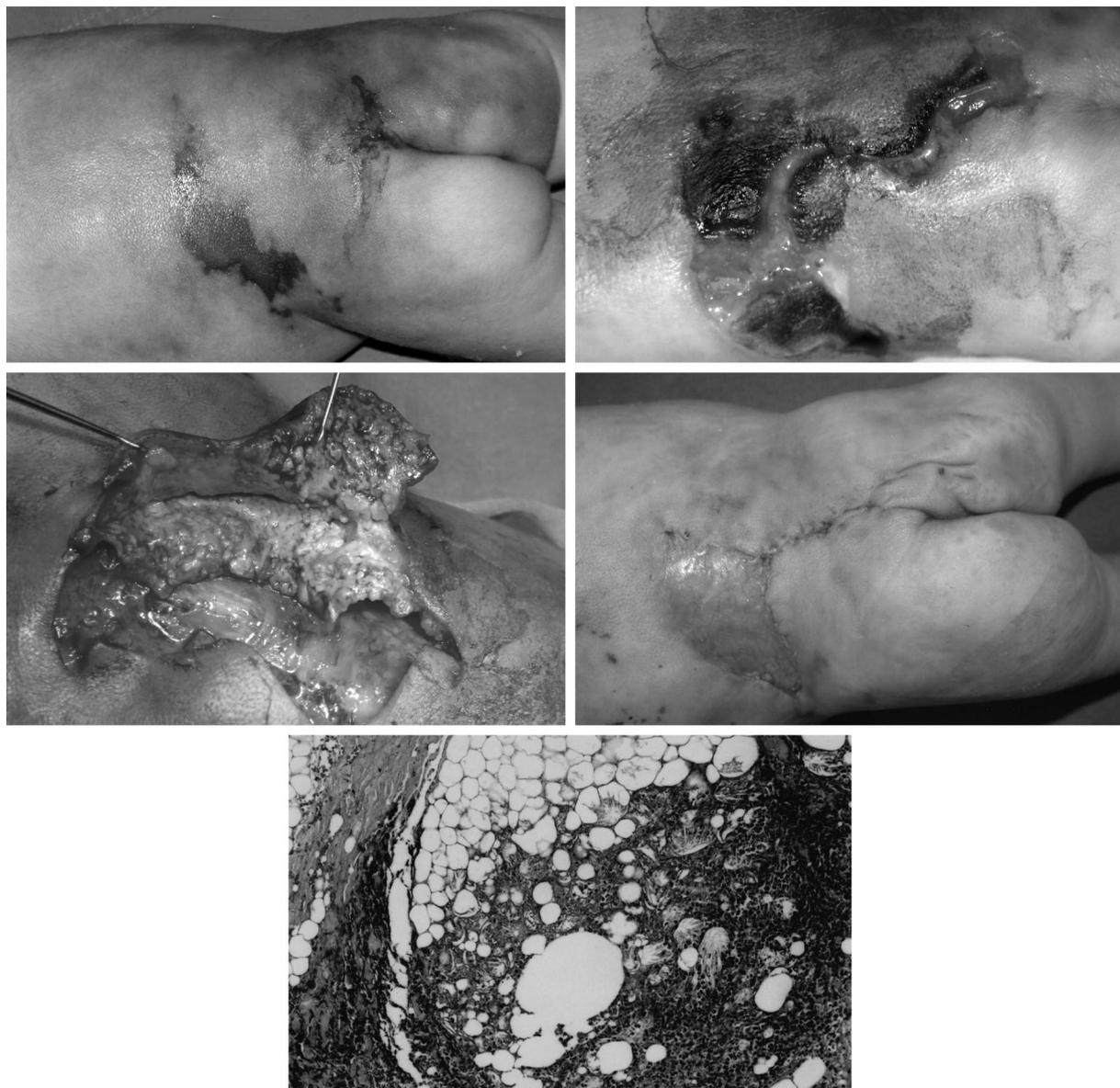


FIG. 1. (Above, left) Large, erythematous, indurated plaques on the back of the neonate on day 6 of life. (Above, right) Large necrosis of skin and subcutaneous tissue on the back of the neonate on day 14 of life. (Center, left) Intraoperative view. (Center, right) Postoperative appearance after 1 month. (Below) Histiocyte deposits and necrosis of the fat tissue (hematoxylin and eosin stain, $\times 100$).

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REFERENCES

1. Glover, M. T., Catterall, M. D., and Atherton, D. J. Subcutaneous fat necrosis in two infants after hypothermic cardiac surgery. *Pediatr. Dermatol.* 8: 210, 1991.
2. Chuang, S. D., Chiu, H. C., and Chang, C. C. Subcutaneous fat necrosis of the newborn complicating hypothermic cardiac surgery. *Br. J. Dermatol.* 132: 805, 1995.
3. Oswald, G. C., Montes, L. F., and Cassady, G. Subcutaneous fat necrosis of the newborn. *J. Cutan. Pathol.* 5: 193, 1978.

4. Katz, D. A., Huerter, C., Bogard, P., and Braddock, S. Subcutaneous fat necrosis of the newborn. *Arch. Dermatol.* 120: 157, 1984.
5. Fretzin, D. F., and Arias, A. M. Sclerema neonatorum and subcutaneous fat necrosis of the newborn. *Pediatr. Dermatol.* 4: 112, 1987.
6. Tran, J. T., and Sheth, A. P. Complications of subcutaneous fat necrosis of the newborn: A case report and review of the literature. *Pediatr. Dermatol.* 20: 257, 2003.
7. Burden, A. D., and Krafchik, B. R. Subcutaneous fat necrosis of the newborn: A review of 11 cases. *Pediatr. Dermatol.* 16: 384, 1999.
8. Vonk, J., Janssens, P. M. W., Demacker, P. N. M., and Folkers, E. Subcutaneous fat necrosis in a neonate, in association with aberrant plasma lipid and lipoprotein values. *J. Pediatr.* 123: 462, 1993.
9. Hicks, M. J., Levy, M. L., Alexander, J., and Flaitz, C. M. Subcutaneous fat necrosis of the newborn and hypercalcemia: Case report and review of literature. *Pediatr. Dermatol.* 10: 271, 1993.
10. Jardine, D., Atherton, D. J., and Trompeter, R. S. Sclerema neonatorum and subcutaneous fat necrosis of the newborn in the same infant. *Eur. J. Pediatr.* 150: 125, 1990.

VAGINAL LABIOPLASTY

Sir:

Many women are plagued by hypertrophic labia minora that protrude beneath their labia majora. They have no idea that this common nuisance can be dramatically improved with a relatively simple procedure.

Patients have complained that grossly enlarged labia minora commonly interfere with intercourse, are a hygiene problem in terms of perpetual wetness, and are frequently irritated by daily activities.¹⁻⁵ Some are self-conscious that it is obvious in a bathing suit, ballerina tights, or other form-fitting attire. Women feel that such a malformation is a problem, both aesthetically and functionally (Fig. 1, *above, left*). Some complain that these large, redundant labia make intercourse difficult. The friction of intercourse causes the large, dry labia to become edematous and tender for many days thereafter. Unfortunately, many patients experiencing this discomfort are embarrassed to inquire about this personal surgery. We have had several patients through the years who have requested labia minora reduction. Every one of our patients has been delighted with the results. Among them was a bathing suit model who came to us very embarrassed about this problem. She had never had a serious relationship before the procedure. Shortly thereafter, she sent us the announcement of her wedding to a professional golfer.

The procedure is safe and easy to perform and provides universal satisfaction. Other surgeons have experienced similar success with the procedure, and just as importantly, patients have been satisfied,²⁻⁵ with no complications. A recent study has shown a greater than 90 percent satisfaction rate in more than 150 patients who underwent vaginal labioplasty.⁴ We do not claim originality, but we wish to report our universal patient satisfaction with this procedure. Such a safe and effective procedure should be added to every surgeon's arsenal and made more accessible to patients.

We give the patient 20 mg of oral diazepam followed by intravenous diazepam until speech is slurred (generally 20 to 80 mg). This is followed by a bolus of 75 mg of intravenous ketamine. The areas to be incised are then injected with 1%

lidocaine with epinephrine. For the remainder of the procedure, the patient is kept comfortable with additional doses of intravenous diazepam and ketamine as needed.⁶⁻⁸

After the area has been prepared and draped (shaving is not necessary), the labia minora are injected on each side with about 5 cc of 2% lidocaine with epinephrine. Each labium is gently retracted with forceps, and a Kelly clamp or similar hemostat may be used to cross-clamp the labium in a gently curved path approximately parallel to the labia majora (Fig. 1, *below*). No effort is made to remove all of the labia minora but only the tissue protruding beyond the labia majora. After the clamp is in place for a minute or so, the excess labia are excised either with curved scissors or a blade. It is rarely necessary to cauterize this area at all because the clamping leaves it relatively hemostatic. It is then possible to suture the internal and external edges of the labia with 5.0 Vicryl continuous locked stitches. No dressing is applied. A W-shaped incision may be used depending on the surgeon's preference.⁵ The patient is instructed to shower daily and apply antibiotic ointment to the suture lines.

Over the years we have performed this procedure many times without a single complication, and patients are always delighted with the results. Both aesthetic and functional integrity are returned to the labia within a month. The patient experiences only minimal discomfort for the first couple of weeks. All of our patients were delighted with their results and would recommend the procedure to those in need (Fig. 1).

Labia minora reduction is a safe, simple procedure that can be performed under local anesthesia and on an outpatient basis with minimal sedation. The nature of the operation has caused it to be a less publicized procedure, leaving many patients uninformed of their treatment options. Plastic surgeons should make their patients aware of this procedure and offer this service in addition to other aesthetic procedures.
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REFERENCES

1. Kato, K., Kondo, A., Gotoh, M., Tanaka, J., Saitoh, M., and Namiki, Y. Hypertrophy of labia minora in myelodysplastic women: Labioplasty to ease clean intermittent catheterization. *Urology* 31: 294, 1988.
2. Alter, G. J. A new technique for aesthetic labia minora reduction. *Ann. Plast. Surg.* 40: 287, 1998.
3. Hodgkinson, D. J., and Hait, G. Aesthetic vaginal labioplasty. *Plast. Reconstr. Surg.* 74: 414, 1984.
4. Rouzier, R., Louis-Sylvestre, C., Paniel, B. J., and Haddad, B. Hypertrophy of labia minora: Experience with 163 reductions. *Am. J. Obstet. Gynecol.* 182 (1 Pt. 1): 35, 2000.
5. Maas, S. M., and Hage, J. J. Functional and aesthetic labia minora reduction. *Plast. Reconstr. Surg.* 105: 1453, 2000.
6. Ersek, R. A. Dissociative anesthesia for safety's sake: Ketamine and diazepam—A 35-year personal experience. *Plast. Reconstr. Surg.* 113: 1955, 2004.
7. Ersek, R. A. Sedation: Valium and ketamine for outpatient serial suction. Presented at the Lipolysis Society of North America meeting, October 1986.



FIG. 1. (Above, left) Preoperative view of a 34-year-old dancer with protruding labia minora. She reported the condition as embarrassing to her in a bathing suit and tights and especially when nude. (Below, left) The labium is gently retracted. (Below, right) The labium is cross-clamped and is shown partially excised. (Above, right) The patient shown after both labia have been repaired.

8. Ersek, R. A. A new magnetic board for mediation monitoring during outpatient anesthesia. *Lipoplasty Newsletter*. 6: 56, 1989.

A SIMPLE INSTRUMENTATION DURING TISSUE EXPANDER PLACEMENT

Sir:

In reconstructive surgery, the main goal is to find tissue suitable for the original region to be repaired. Not only are the tissue's contents important but the properties are as well. Advances in reconstructive surgery have allowed many new techniques and possibilities, but tissue expanders are still life buoys for the surgeon. The best tissue suitable for any location can be harvested from the neighboring regions. Tissue expansion allows the neighboring tissue to be used safely and in the desired amounts.¹⁻³

Placement of the tissue expander into the pocket formed in the adjacent tissue of the region to be repaired is the first

stage of the reconstruction. The incision that forms the pocket should be perpendicular to the expansion plane. The smaller the incision is, the better the postoperative results will be. However, a smaller incision restricts the dissection plane, making expander placement more difficult.⁴⁻⁶ Placement of the expander through this small incision with a surgeon's bare hands is more troublesome. Any equipment to hold the expander should be atraumatic. We have devised a simple way to hold the expander (Fig. 1). Plastic catheters are placed over the tips of the clamps to be used. The catheters are usually flexible and nontraumatic. They can be urethral catheters or nasogastric feeding tubes that are cut according to the size of the clamp. In this way, the tissue expander can easily be pushed or retracted into the pocket or through the incision without any damage to the silicone surface. This helps to decrease the operative time and the risk of puncturing the expander.

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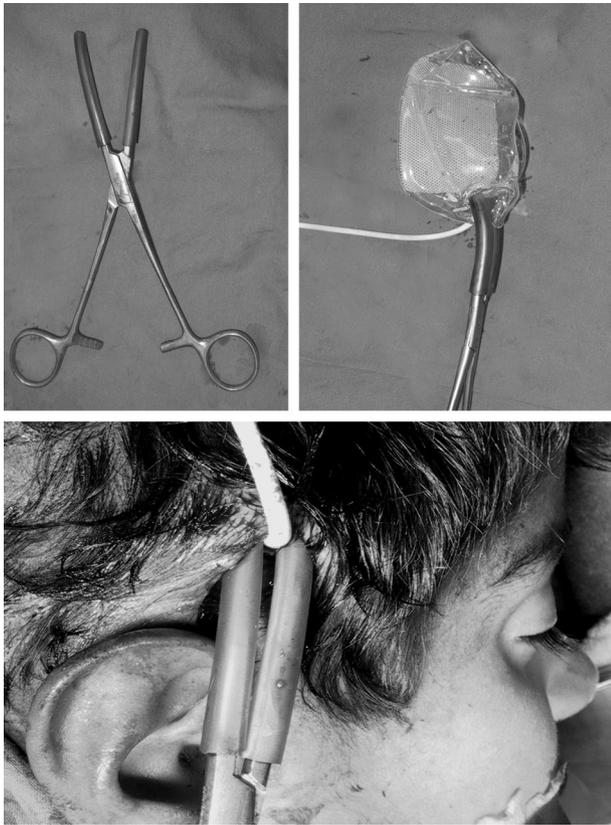


FIG. 1. (Above, left) Plastic catheters are placed over the tips of the clamps. (Above, right) The expander can be held easily and atraumatically. (Below) The tissue expander can easily be manipulated through the incision without any damage to the silicone surface.

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1. Cohen, M., Marschall, M. A., Dolezal, R. F., and Hanumadass, M. M. The role of tissue expansion in the reconstruction of secondary burn defects. *J. Burn Care Rehabil.* 10: 220, 1989.
2. Kostakoglu, N., Kecik, A., Ozyilmaz, F., Safak, T., Ozgur, F., and Gursu, K. G. Expansion of fascial flaps: Histopathologic changes and clinical benefits. *Plast. Reconstr. Surg.* 91: 72, 1993.
3. Homma, K., Ohura, T., Sugihara, T., Yoshida, T., and Hasegawa, T. Prefabricated flaps using tissue expanders: An experimental study in rats. *Plast. Reconstr. Surg.* 91: 1098; discussion 1108, 1993.

4. Chun, J. T., and Rohrich, R. J. Versatility of tissue expansion in head and neck burn reconstruction. *Ann. Plast. Surg.* 41: 11, 1998.
5. Iwahira, Y., and Maruyama, Y. Combined tissue expansion: Clinical attempt to decrease pain and shorten placement time. *Plast. Reconstr. Surg.* 91: 408, 1993.
6. Whitaker, I. S., Herson, C., and Foo, I. T. A novel technique for connecting tubing placement of remote subcutaneous tissue expander ports. *Plast. Reconstr. Surg.* 113: 781, 2004.

TRANSPLANTATION OF THE VASCULARIZED BONE ALLOGRAFT INTO THE INGUINAL REGION

Sir:

Composite tissue allograft contains skin, subcutaneous tissue, muscle, nerve, bone, and blood vessels with variable degrees of immunogenicity. Currently, composite tissue allograft transplantation is not realistic. Since it is a nonvital allotransplantation, it requires a life-long, high-dose immunosuppressive therapy, which may lead to life-threatening side effects. So the ultimate goal of composite tissue allograft transplantation would be induction of immunotolerance without the need for chronic immunosuppression. Different methods have been used for tolerance induction, including the creation of donor-specific chimerism by vascularized bone marrow transplantation.¹ Since the vascularized bone marrow transplant model involves the transfer of bone marrow cells with their own environment into recipients, it is considered to be superior, as a bone marrow source, to cellular bone marrow transplantation in the induction of tolerance.² Different models of vascularized bone marrow transplantation have been described, involving the limb, sternum, and isolated femoral bone.³⁻⁶

Limb allotransplants contain several tissues with unpredictable amounts of antigenicity that make the role of bone marrow cells in tolerance induction difficult to understand.^{7,8} These allotransplants are also associated with a high incidence of complications, such as bleeding, respiratory arrest, and wound infections.³

The sternum allotransplant model is considered a simple procedure by the authors, but it is not commonly used because it requires a laparotomy for placement of the graft in the recipient, and it is difficult to observe the flap for local signs of rejection.⁴

The intraperitoneal isolated vascularized bone marrow transplant model, as with the sternum allotransplant model, requires a laparotomy.⁵ Tai et al.⁶ described the extraperitoneal model with placement of the bone into a subcutaneous pocket created in the anterior abdominal wall of the recipients, and passed a single loop stitch around the neck of the femur bone to the rectus muscle to prevent migration of the graft.

In our ongoing studies regarding tolerance induction after vascularized femoral bone transplantation, vascularized grafts were harvested in a manner similar to that described by Suzuki et al.⁵ Briefly, after wide exploration of the right inguinal region and the leg, the superficial epigastric and saphenous vessels were ligated and divided. The popliteal space was explored, and the muscular branches and the femoral vessel were ligated and transected distally. Both the lateral femoral circumflex and superficial circumflex iliac arteries were preserved, as they are the nutrient and periosteal arteries to the femoral bone. The femur bone was disarticulated

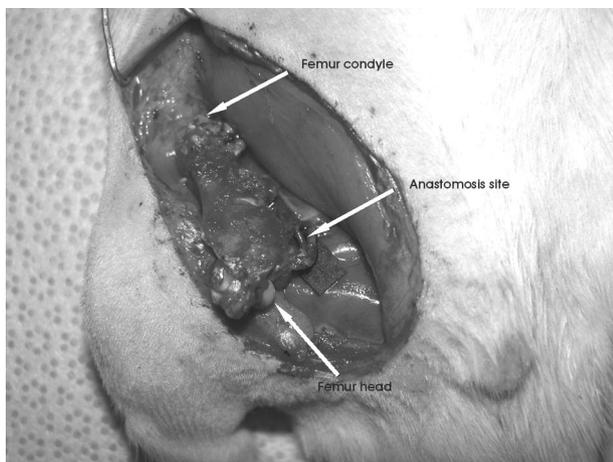


FIG. 1. The vascularized bone allograft is inset into the right inguinal region after arterial and venous anastomosis.

both proximally and distally. The femoral vessels were then dissected proximally and the flap was harvested. In the recipient, the vascular anastomoses were performed to the femoral vessels in an end-to-end fashion. Flap inseting was completed in the inguinal region of the recipient (Fig. 1). Unlike Tai et al.,⁶ we placed the vascularized bone graft directly into the inguinal region of the recipient without creating any additional subcutaneous pocket or applying a suture for bone fixation. This has decreased the operative time and the possibility of complications caused by the creation of a subcutaneous pocket, such as seroma or hematoma. After approximation of the inguinal fat pad over the flap with three interrupted absorbable sutures, the skin was closed using 4-0 chromic catgut sutures.

More than 50 transplants were performed and the patency of the anastomosis was confirmed in all animals. Like Tai et al.,⁶ we also found that ligation of the femoral vessels had no critical effect on the vascularity of the recipient's hind limb. We agree with the authors who described isolated vascularized bone marrow transplantation regarding the simplicity of the technique and its relative purity. We found the isolated vascularized bone marrow transplant model to be a good model for studying the role of vascularized bone marrow in tolerance induction. With this modification, although the ischemia time was not reduced, the operative time and anesthesia were decreased; the operative time for both the donor and the recipient was approximately 120 minutes. Placement of the vascularized bone graft in the inguinal region did not interfere with the mobility of the recipients.

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REFERENCES

1. Tsuchida, Y., Usui, M., and Uede, T. Vascularized bone-marrow allotransplantation in rats prolongs the survival of simultaneously grafted alloskin. *J. Reconstr. Microsurg.* 18: 289, 2002.
2. Lukomska, B., Durlik, M., Cybulska, E., and Olszewski, W. L. Comparative analysis of immunological reconstitution induced by vascularized bone marrow versus bone marrow cell transplantation. *Transpl. Int.* 9 (Suppl. 1): S492, 1996.
3. Lipson, R. A., Kawano, H., Halloran, P. F., McKee, N. H., Pritzker, K. P. H., and Langer, F. Vascularized limb transplantation in the rat. *Transplantation* 35: 293, 1983.
4. Santiago, S. F., de Faria, W., Khan, T. F., et al. Heterotopic sternum transplant in rats: A new model of a vascularized bone marrow transplantation. *Microsurgery* 19: 330, 1999.
5. Suzuki, H., Patel, N., Mathews, M., Delrossi, A. J., Doolin, E. J., and Hewitt, C. W. Vascularized bone marrow transplantation: A new surgical approach using isolated femoral bone/bone marrow. *J. Surg. Res.* 89: 176, 2000.
6. Tai, C. Y., France, M. A., Strande, L. F., et al. An extraperitoneal isolated vascularized bone marrow transplant model in the rat. *Transplantation* 75: 1591, 2003.
7. Lee, W. P., Yaremchuk, M. J., Pan, Y. C., Randolph, M. A., Tan, C. M., and Welland, M. J. Relative antigenicity of components of vascularized limb allografts. *Plast. Reconstr. Surg.* 87: 401, 1991.
8. Black, K. S., Hewitt, C. W., Fraser, L. A., et al. Composite tissue (limb) allografts in rats. *Transplantation* 39: 365, 1985.

THE BALLOONING MANEUVER IN BREAST AUGMENTATION

Sir:

Breast augmentation is one of the most frequently performed cosmetic operations today. During the procedure we often need to check the margins of our dissection to complete the pocket and avoid under- or overdissection. We describe a technique that could prove quite effective in visualizing the extent of pocket dissection during the operation.

First, we mark the margins of our dissection on the surface of the breast. This is a useful mark for the pocket dissection during the operation. After we have dissected almost to the edges of our premarked pocket but before we have completed the dissection, we perform the ballooning maneuver: we insert the index and middle fingers into the pocket (Fig. 1), and with the tips of the fingers facing the upper surface of the pocket, we lift the breast tissue up. Thus we allow air to pass into the pocket. Immediately after that, we pull down the breast tissue and we seal the site of the incision with our fingers. The air that remains trapped in the pocket has the effect of ballooning the breast (Fig. 2). With this maneuver, it is much easier to visualize the



FIG. 1. The index and middle fingers are inserted into the pocket to push the breast up. Air is forced into the dissected pocket.

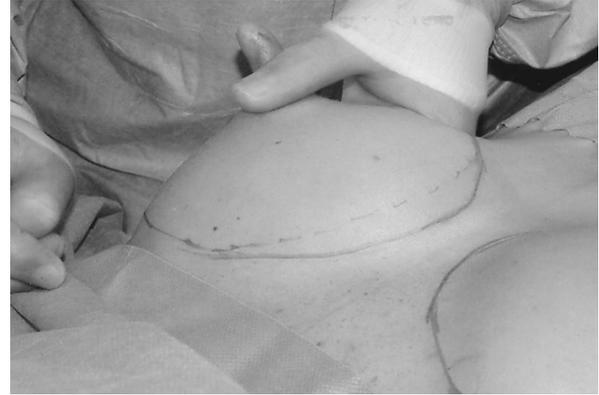


FIG. 3. Final pocket dissection. The ballooning maneuver is repeated and represents the match of the finally created pocket and the skin surface markings.



FIG. 2. The fingers are moved down fast to seal the site of the incision, thereby trapping air in the pocket. The ballooning effect clearly indicates the dissection margins (*dashed line*).

margins of our dissection (Fig. 2, *dashed line*) transferred to the surface of the breast. It is clear in Figure 2 that we need to dissect the medial and upper part of the pocket to complete our dissection (Fig. 3).

We frequently use the ballooning maneuver during breast augmentation to assess the extent of our dissection. With this maneuver, it is easy to visualize the progress of the pocket dissection and to avoid overdissection, especially medially and laterally to the breast, and even underdissection.

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USE OF A NEEDLE GUARD IN SYRINGE NIPPLE SPLINTING

Sir:

The inverted nipple was first described in 1840 by Sir Cooper.¹ Currently about 10 percent of the female population is affected unilaterally or bilaterally. Inverted nipples are usually congenital but in some cases are acquired; they are classified into three groups (grade 1, 2, or 3) according to the severity of inversion.² This pathology implies both functional and cosmetic problems and often results in psychological distress.³ Many surgical techniques have been described to correct the inverted nipple.⁴⁻⁶ After surgical treatment, splinting is fundamental to maintain the newly everted nipple.^{7,8}

We have worked out an easy way to splint nipples using part of a plastic syringe. A sterile 20-ml syringe is cut so as to obtain a 3-cm tube corresponding to the end with the flange. A 2-0 nylon suture is passed through the surgically everted nipple and then inserted into the stump of the syringe, which is placed with the flange against the skin. A paraffin gauze pad is interposed to prevent pressure sores from developing on the areola. When the suture is withdrawn, nipple projection is maintained. At this time a needle guard is placed on top of the stump of the syringe and affixed with Steri-Strips. The suture is then tightened and secured around the guard (Fig. 1). It is important to avoid excessive tension on the suture, as this can cause local tissue necrosis. In this way we adjust and maintain the extent of the nipple eversion by changing the tension of the suture around the needle guard. This splint is removed after 15 to 21 days by cutting the suspension suture and removing the syringe. No complications related to this device and no evidence of recurrence have been observed.

We can appreciate the main advantages of this technique in the first postoperative days, when a nipplet cannot yet be applied: (1) it preserves the eversion obtained with surgery, (2) it allows proper scarring, thereby avoiding the tendency to inversion that is typical during this process, and (3) it permits the surgeon to adjust the tension on the suture so as to enhance the eversion of the nipple. We think this technique provides valid splinting of the corrected nipple, and it is an easy and inexpensive procedure.

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FIG. 1. The needle guard used in syringe nipple splinting.

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REFERENCES

1. Lee, H. B., Roh, T. S., Chung, Y. K., Kim, S. W., Kim, J. B., and Shin, K. S. Correction of inverted nipple using strut reinforcement with deepithelialized triangular flaps. *Plast. Reconstr. Surg.* 102: 1253, 1998.
2. Han, S., and Hong, Y. G. The inverted nipple: Its grading and surgical correction. *Plast. Reconstr. Surg.* 104: 389, 1999.
3. Pompei, S., and Tedesco, M. A new surgical technique for the correction of the inverted nipple. *Aesthetic Plast. Surg.* 23: 371, 1999.
4. Lee, H. B., Roh, T. S., Chung, Y. K., Kim, S. W., Kim, J. B., and Shin, K. S. Correction of inverted nipple using strut reinforcement with deepithelialized triangular flaps. *Plast. Reconstr. Surg.* 102: 1253, 1998.
5. Pereira Filho, O. J., Bins-Ely, J., Granemann, A. S., Bertelli, J. A., and Abdalla, S. C. Closed inverted nipple treatment through a microincision procedure. *Plast. Reconstr. Surg.* 108: 1000, 2001.
6. Nathan, B. Treatment of the inverted nipple. *Plast. Reconstr. Surg.* 110: 353, 2002.
7. Choudhary, S., and Curnier, A. "Syringe in syringe" nipple splint (Letter). *Plast. Reconstr. Surg.* 109: 1745, 2002.
8. Choudhary, S., and Adams, T. The "syringe" nipple splint. *Plast. Reconstr. Surg.* 112: 1182, 2003.

AXILLARY RECONSTRUCTION WITH A MUSCULOGLANDULOCUTANEOUS ISLAND FLAP

Sir:

A variety of reconstructive procedures have been described for axillary defects, including, skin grafts, local and regional flaps, and free tissue transfer. Their selection depends on a number of factors, such as the underlying disease process, the size, shape, location, and depth of the defect, and the patient's individual needs. Furthermore, the choice of reconstruction should not impair shoulder mobility. We report a patient who underwent postoncological axillary reconstruction with a musculoglandulocutaneous island flap. This reconstructive approach has not previously been reported.

A 69-year-old woman presented with melanoma recurrence in an axillary scar 2 months after level III axillary clearance for metastatic disease. Both were confirmed with fine-needle aspiration cytology. The primary lesion, a superficial spreading melanoma (1-mm Breslow thickness), had been excised from her back with clear margins 5 years earlier. The axillary scar recurrence manifested as a 2-cm red nodule that was initially treated with radiotherapy (45 Gy in 20 fractions over 4 weeks, with a boost of 12 Gy in five fractions over 1 week).

Although the nodule decreased in size, there was desquamation of surrounding skin that was slow to heal. Consequently, the patient was left with persistent melanoma recurrence and a painful scar that was worsened by the downward pull of her large and ptotic breast (Fig. 1).

Preoperative examination suggested that the ipsilateral latissimus dorsi muscle had been denervated as a result of her previous axillary clearance. Thus, use of the latissimus dorsi flap or other flaps of the subscapular axis was questionable, because the integrity of the thoracodorsal pedicle could not be guaranteed.

Wide excision of the axillary scar, including the melanoma nodule, was subsequently performed. Skin affected by radiodermatitis was also excised, and the thoracodorsal pedicle was confirmed to be absent.

The axillary defect was reconstructed by performing a free nipple graft reduction of the ipsilateral breast and transposing the redundant skin and glandular segment as a pedicled



FIG. 1. Preoperative view of the melanoma recurrence and radiodermatitis in the axillary scar.

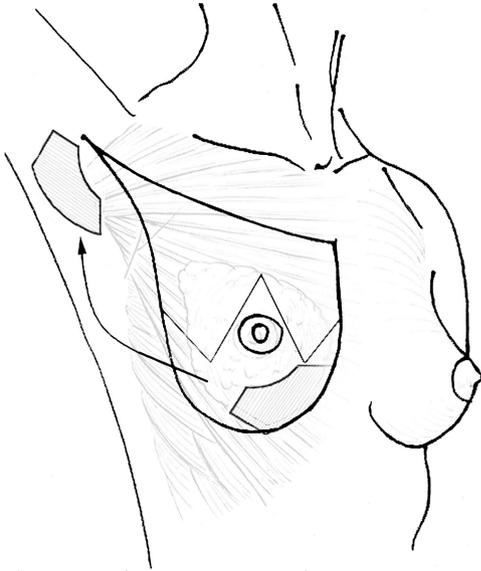


FIG. 2. The redundant skin and glandular segment of the breast reduction and underlying pectoralis major are set into the axillary defect.



FIG. 3. Postoperative appearance at 6 months.

interpolation flap into the defect. The flap was based on the pectoralis major muscle and perforators from the thoracoacromial axis (Fig. 2). A free nipple graft reduction was also performed on the contralateral breast.

Her postoperative recovery was uneventful, with no loss of the nipple-areola complex. The patient was discharged 10 days after the operation and had resumed normal activity by 2 months (Fig. 3).

Reconstruction of large axillary defects can be a challenging problem. Our main objective was to use a reconstructive procedure that was reliable and that would allow the patient to heal quickly and regain her quality of life. The musculoglandulocutaneous flap addressed these issues and provided a number of other benefits, including coverage of the defect with restoration of volume and contour and reduction of tension exerted on the axilla by the large ipsilateral breast. In addition, the patient's re-

quest to have a breast reduction to ease her neck and back pain was fulfilled. Shoulder mobility was unimpaired and the donor site was "hidden" in the breast reduction scars.

De Fontaine et al.¹ first described the musculoglandulocutaneous flap for successful closure of a poststernotomy wound. Superiorly based pectoralis major muscle flaps with the overlying medial breast segment were advanced to the midline and attached to a previously attempted rectus abdominis muscle flap. A conventional bilateral breast reduction was concurrently performed, joining the medial and lateral breast segments together. In their case, the authors suggested that the vertical sternotomy wound dehiscence could be caused by the inferolateral pull of large breasts. This may also apply to axillary wounds. The musculoglandulocutaneous flap was particularly advantageous in this case, because the patient had complained preoperatively that the weight of her breasts aggravated the painful axillary scar.

We believe the musculoglandulocutaneous island flap is a useful option in selected cases where there has been significant axillary resection and local fasciocutaneous flaps or latissimus dorsi flaps cannot be used. Moreover, this flap may be ideally suited for women who wish to undergo simultaneous breast reduction or if axillary wound healing has previously been compromised by the downward pull of large breasts.

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REFERENCE

1. De Fontaine, S., Devos, S., and Goldschmidt, D. Reduction mammoplasty combined with pectoralis major muscle flaps for median sternotomy wound closure. *Br. J. Plast. Surg.* 49: 220, 1996.

DEEPIHELIALIZATION OF BREASTS WITH SCISSORS

Sir:

Breast reduction is among the most common procedures carried out in a plastic surgery unit. The inferior pedicle technique is used by most plastic surgeons. Despite its drawbacks, it is considered very versatile, as precise tailoring of the reduction can be performed.¹

An important component of this operation is the deepithelialization of the inferior pedicle. Over the years, many techniques have been suggested for deepithelialization of the inferior pedicle.²⁻⁴ Their emphasis has been on speed, accuracy of the depth of excision, and reduced bleeding. We wish to highlight a simple technique that is quick and accurate but

has not been emphasized significantly in the literature, deepithelialization with a pair of sharp curved scissors.

Routine infiltration of the breast is performed with 0.5% bupivacaine and 1:500,000 adrenaline. The inferior pedicle is marked, and the breast is made taut with ribbon gauze tied firmly around its base. This helps to keep the breast surface stable and convex.

Transverse skin incisions up to depth of the dermis are made at intervals of 0.5 cm in the area where the deepithelialization is planned. The skin is kept stretched with dissecting forceps, while the strips of skin are cut off with the curved supercut/sharp scissors by keeping parallel to the surface of the breast (Fig. 1, *above*).

After the upper part of the pedicle is deepithelialized, the gauze tourniquet is removed and the process is completed to the inframammary fold. The skin here is notoriously adherent and thick, but excising the strips with the scissors is remarkably easy in this region. The end result is an area of deepithelialization that is superficial to the level of the subdermal plexus and quite uniform (Fig. 1, *below*).

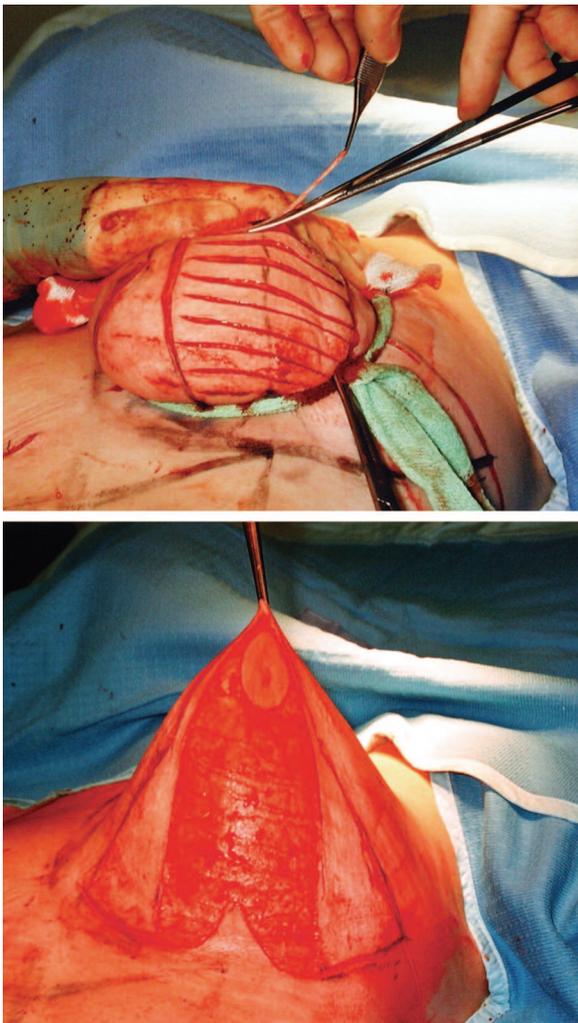


FIG. 1. (*Above*) Strips of skin, marked on the inferior pedicle, are kept taut with traction by dissecting forceps while being excised with scissors. (*Below*) The inferior pedicle immediately after excision of the skin.

The necessity of deepithelialization of the inferior pedicle is debatable, but it is practiced routinely. Deepithelialization with a scalpel requires considerable dexterity to remain in the right plane,³ especially in the area of the inframammary fold. Because of the angle at which the fold joins the chest wall and the adherent thick skin, dissection in this area can be tedious. Most of the time spent on deepithelialization is spent here. Dermatomes have been used in this area to expedite the process,² but traditional methods have to be resorted to in the upper part of the pedicle (i.e., near and around the nipple area).

Using the cautery for deepithelialization has the disadvantages of potentially delayed wound healing and seroma formation.⁵ Moreover, the excessive smoke from the diathermy dissection may be a hazard and can be a nuisance.

A computerized search of the National Library of Medicine's database into the techniques of deepithelialization does not highlight the technique of skin excision with scissors. We think it is a quick and simple technique and deserves to be revisited. We have found it particularly beneficial in deepithelialization in the area of the inframammary fold. The elaborate instrumentation involved in other high-tech procedures is unnecessary and probably overkill.

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REFERENCES

- Hidalgo, D. A., Elliot, L. F., Palumbo, S., Casas, L., and Hammond, D. Current trends in breast reduction. *Plast. Reconstr. Surg.* 104: 806; discussion 817, 1999.
- Juma, A., Miller, J. G., and Laitung, J. K. Pedicle deepithelialization in breast reduction and mastopexy using the electric dermatome. *Plast. Reconstr. Surg.* 95: 216, 1995.
- Apfelberg, D. B., and Smoller, B. UltraPulse carbon dioxide laser with CPG scanner for deepithelialization: Clinical and histologic study. *Plast. Reconstr. Surg.* 99: 2089, 1997.
- Barr, S. T., Young R. B., III, Widenhouse, B. G., and Davis, D. Bloodless pedicle deepithelialization in reduction mammoplasty. *Plast. Reconstr. Surg.* 111: 493, 2003.
- Demirtas, Y., and Yavuzer, R. Bloodless pedicle deepithelialization in reduction mammoplasty. *Plast. Reconstr. Surg.* 112: 1742, 2003.

FLEXOR SHEATH CATHETERIZATION

Sir:

Flexor sheath infection, if not adequately treated, can have serious consequences.¹⁻³ Purulence within the sheath can rapidly disrupt the gliding mechanism, promote the forma-

tion of adhesions, and destroy the tendon by compromising its blood supply.^{1,2} It is a common condition in the young, caused largely by penetrating injuries, with *Staphylococcus aureus* being the most common organism involved.¹⁻⁴ If caught early it can be treated with intravenous antibiotics, splinting, and elevation.^{1-3,5} Frequently, however, the patient presents late and surgical drainage and irrigation are required.

In the established technique, a pediatric feeding tube is used as a catheter and the flexor sheath is opened proximal to the A1 pulley and distal to the A5 pulley.¹⁻⁴ Additional access can also be achieved with another incision at the A3 pulley. Despite good exposure, however, insertion of the catheter can be difficult. The tip of the catheter can catch on the pulleys and prevent passage of the tube, and further force only causes the tube to buckle. Repeated attempts risk trauma to the tendons and their vincula. To overcome this problem, we have developed a novel technique to aid the passage of the feeding tube through the flexor sheath.

We use a 6-French gauge Portex feeding tube for the catheter. The tube is fenestrated in the usual way to provide exits for the irrigation fluid, to flush the flexor sheath throughout its length. A standard medical probe is intro-

duced through one of these holes and passed along the inside of the catheter until it reaches the closed blunt tip (Fig. 1). The addition of the rigid probe prevents the tube from buckling and allows it to pass through the flexor sheath in an either antegrade or retrograde fashion. Once beyond the pulleys, the probe is withdrawn and the catheter is delivered from the wound and sutured distally and proximally to ensure that it remains in place (Fig. 2). Irrigation of the flexor sheath is performed and continued postoperatively in the recognized manner.^{1,2,5} Since using this technique we no longer find catheterization of the flexor sheath so problematic. We recommend its use to all other hand surgeons who may find themselves in a similar situation.

We declare no financial interest in any of the products or companies mentioned.

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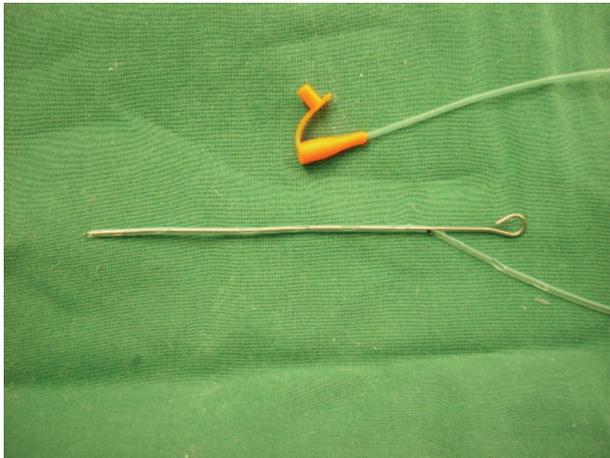


FIG. 1. The medical probe fits inside the pediatric feeding tube like an introducer.



FIG. 2. Once the catheter is in place within the sheath, the probe is withdrawn.

REFERENCES

- Boles, S. D., and Schmidt, C. C. Pyogenic flexor tenosynovitis. *Hand Clin.* 14: 567, 1998.
- Green, D. P., Hotchkiss, R. N., and Pederson, W. C. *Green's Operative Hand Surgery*, 4th Ed. New York: Churchill Livingstone, 1999. Pp. 1042-1046.
- Pollen, A. G. Acute infection of the tendon sheaths. *Hand* 6: 21, 1997.
- Carter, S. J., Burman, S. O., and Mersheimer, W. L. Treatment of digital tenosynovitis by irrigation with peroxide and oxytetracycline: Review of nine cases. *Ann. Surg.* 163: 645, 1966.
- Neviaser, R. J. Tenosynovitis. *Hand Clin.* 5: 525, 1989.

MANAGEMENT OF EPINEPHRINE INJECTION INJURY TO THE DIGIT

Sir:

I was recently consulted to evaluate several epinephrine injections to the finger caused by the accidental discharge of an EpiPen. The emergency room physicians as well the patients were deeply concerned about the potential ischemic loss of a digit. Upon my review of epinephrine injection injuries, I found virtually no information on this subject in the plastic or hand surgery textbooks or in the plastic surgery literature. Consequently, I have attempted to form an evidence-based approach to this problem.

Ischemic tissue loss from an epinephrine injection injury theoretically can result from epinephrine-induced vasoconstriction. Epinephrine significantly decreases blood flow within 10 minutes of injection, and after 90 minutes blood

flow is completely restored.¹ Thus, assuming that vasoconstriction from the injection injury totally eliminates blood flow to the digit, the finger would be ischemic for a maximum of 90 minutes. Ischemia for 90 minutes, however, does not threaten the long-term viability of that finger because amputated digits may be successfully replanted after up to 33 hours of warm ischemia.² Thus, the ischemia-related vasoconstrictive effect of epinephrine does not last long enough to threaten the viability of the digit.

Experience with using epinephrine in digital nerve blocks supports the theoretical inability of epinephrine to cause ischemic loss of a digit. Both retrospective³ and prospective⁴ randomized studies have shown that vasoconstricting both digital arteries using epinephrine-containing local anesthetics does not cause digital gangrene. However, the concentration of epinephrine differs between an EpiPen and a local anesthetic. The amount of epinephrine injected with an EpiPen, assuming the complete discharge of the pen, is 0.3 mg (0.3 ml of epinephrine 1:1000). The average amount of epinephrine injected for a digital block is 0.05 mg (5 ml of epinephrine 1:100,000).⁴ Thus, the maximum difference in the amount of epinephrine delivered by an EpiPen is approximately six times the dose of epinephrine given during an average digital block. However, the difference in epinephrine delivered is probably lower because often the entire dose of epinephrine is not discharged with accidental EpiPen injuries, and some authors use higher concentrations of epinephrine for digital blocks.³

Not only do epinephrine-containing digital blocks fail to cause digital necrosis, but evidence also suggests that, despite its greater concentration of epinephrine, EpiPen injection does not lead to digital loss. For example, no case of digital gangrene caused by an EpiPen injection is cited in the PubMed literature between 1966 and 2004. In addition, in the largest series of accidental EpiPen injection injuries to the hand, all 28 patients were treated conservatively without pharmacological intervention. None of the patients in the series experienced digital necrosis, and the authors suggest that EpiPen injection injuries do not require referral to a health-care facility.⁵

Despite evidence suggesting that a digital EpiPen injection injury is self-limiting, the reversal of epinephrine-induced vasoconstriction using locally injected phentolamine⁶⁻¹⁰ has been described. However, because complete blood flow return after epinephrine injection has been shown to occur as early as 60 minutes after injection,¹ by the time a patient reaches a health-care facility and receives the pharmacological intervention, the effect of epinephrine may have already worn off. Not only may phentolamine not be efficacious, but injecting additional volume into the injured area may potentially be harmful. Although no case reports of digital ischemia exist after EpiPen injection treated with phentolamine, the added volume of injection may increase the likelihood of pressure necrosis. Studies of digital blocks suggest that although epinephrine is not associated with digital necrosis, tourniquets, excessive volume injection, and hot soaks are risk factors.⁴ Thus, excessive local volume injection and hot packs should be avoided after EpiPen injury. Hot packs may further tissue injury because of neurapraxia and temporary loss of protective sensation from swelling.

In conclusion, several pieces of evidence suggest that EpiPen injections will not result in digital necrosis and that these injuries may be managed by observation alone. First, the vasoconstricting effects of epinephrine last at most only 90 minutes, while the digit may tolerate 33 hours of ischemia. Second, digital blocks containing epinephrine to decrease

bleeding do not cause long-term digital ischemia. Third, no cases of digital necrosis after accidental EpiPen injection have been reported in the literature. Finally, in a study of patients treated without pharmacological intervention, none of the patients developed a gangrenous digit.

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REFERENCES

1. Altinyazar, H. C., Ozdemir, H., Koca, R., Hosnuter, M., Demirel, C. B., and Gundogdu, S. Epinephrine in digital block: Color Doppler flow imaging. *Dermatol. Surg.* 30: 508, 2004.
2. Chiu, H. Y., and Chen, M. T. Revascularization of digits after thirty-three hours of warm ischemia time: A case report. *J. Hand Surg. (Am.)* 9: 63, 1984.
3. Sylaidis, P., and Logan, A. Digital blocks with adrenaline: An old dogma refuted. *J. Hand Surg. (Br.)* 23: 17, 1998.
4. Wilhelmi, B. J., Blackwell, S. J., Miller, J. H., et al. Do not use epinephrine in digital blocks: Myth or truth. *Plast. Reconstr. Surg.* 107: 393, 2001.
5. Mrvos, R., Anderson, B. D., and Krenzelok, E. P. Accidental injection of epinephrine from an autoinjector: Invasive treatment not always required. *South. Med. J.* 95: 318, 2002.
6. McGovern, S. J. Treatment of accidental digital injection of adrenaline from an auto-injector device. *J. Accid. Emerg. Med.* 14: 379, 1997.
7. Hardy, S. J., and Agostini, D. E. Accidental epinephrine auto-injector-induced digital ischemia reversed by phentolamine digital block. *J. Am. Osteopath. Assoc.* 95: 377, 1995.
8. Hinterberger, J. W., and Kintzi, H. E. Phentolamine reversal of epinephrine-induced digital vasospasm: How to save an ischemic finger. *Arch. Fam. Med.* 3: 193, 1994.
9. Maguire, W. M., Reisdorff, E. J., Smith, D., and Wiegstein, J. G. Epinephrine-induced vasospasm reversed by phentolamine digital block. *Am. J. Emerg. Med.* 8: 46, 1990.
10. Burkhart, K. K. The reversal of the ischemic effects of epinephrine on a finger with local injections of phentolamine. *J. Emerg. Med.* 10: 496, 1992.

A NOVEL USE OF THE FREE GRACILIS MUSCLE FLAP IN HAND TRAUMA

Sir:

Open fractures in the hand can be a complex reconstructive problem, especially when they are associated with tendon injuries and loss of the surrounding soft tissues. Common complications of this type of injury include infection, tendon adhesions, pain, and stiffness, all of which can result in a poor functional recovery. Therefore, rapid débridement, adequate skeletal stabilization, and accurate repair or replacement of the surrounding soft tissues is vital to ensure good functional

recovery of the hand.¹ The use of free flaps to replace soft-tissue loss is well described in the hand trauma literature. In particular, the free gracilis muscle flap is often used because of its suitable size and low donor-site morbidity.^{2,3}

The gracilis muscle has a reliable secondary pedicle arising from the superficial femoral artery. One use of this pedicle has been to provide "turbo-charging" to distally based skin paddles.⁴ We suggest a simple modification of the free gracilis muscle flap: the secondary pedicle can be used as the vascular support for a fascial flap attached to the muscle belly. The pedicle runs on the anterior surface of the adductor magnus, and the overlying muscle fascia can be raised around the vessels. This thin, flexible, vascularized tissue can then be used to reconstruct tissue layers or separate important soft-tissue structures.

We used this technique to reconstruct a severe crush injury to the dominant hand of a 49-year-old laborer. He sustained skin loss to the dorsum and palmar surfaces of the hand, a comminuted fracture of the third metacarpophalangeal joint and exposure of the middle finger flexor tendons, a transverse fracture of the fourth metacarpal through the metaphysis, and division of the ring finger flexor tendons. All extensor tendons were intact. The third metacarpal head and proximal phalangeal base were devitalized, requiring débridement and arthrodesis of the metacarpophalangeal joint with an iliac crest autologous bone graft, while the fourth metacarpal fracture was plated. The soft tissues were débrided and the dorsal skin defect was covered with a free gracilis muscle flap, anastomosed to the terminal radial artery and two dorsal veins. An 8 × 5-cm fascial flap, raised around the secondary pedicle, was delivered between the second metacarpal and the bone graft. The fascial tissue was then folded into two leaves. One leaf was interposed between the bone graft and the flexor tendons to reduce the risk of tendon adhesions; the other leaf was then used to cover the palmar aspect of the flexor tendons (Fig. 1). This allowed the palmar skin defect to be covered with a meshed split-thickness skin graft, thereby reducing the bulk of tissue on the palmar surface and eliminating the requirement for an additional flap to cover the palmar defect.

The gracilis muscle is a versatile free flap that is imminently suitable for hand reconstruction. Here we present a novel use for the secondary pedicle, which increases the versatility of the gracilis flap in hand reconstruction because it provides additional vascular tissue that can be used, as in this case, to

cover a bone graft and to protect important structures such as the flexor tendons.

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REFERENCES

1. Gonzalez, M. H., Bach, H. G., Elhassan, B. T., Graf, C. N., and Weinzweig, N. Management of open hand fractures. *J. Am. Soc. Surg. Hand* 3: 208, 2003.
2. Krimmer, H., Hahn, P., and Lanz, U. Free gracilis muscle transplantation for hand reconstruction. *Clin. Orthop.* 314: 13, 1995.
3. Zukowski, M., Lord, J., Ash, K., Shouse, B., Getz, S., and Robb, G. The gracilis free flap revisited: A review of 25 cases of transfer to traumatic extremity wounds. *Ann. Plast. Surg.* 40: 141, 1998.
4. Core, G. B., Weimar, R., and Meland, N. B. The turbo gracilis myocutaneous flap. *J. Reconstr. Microsurg.* 8: 267, 1992.

EASY PERIOPERATIVE PHOTOGRAPHY BY DIGITAL CAMERA COVERED WITH A STERILE NYLON BAG

Sir:

Plastic surgeons definitely require a reliable system of image generation in their specialty. Images are necessary not only to compare the preoperative and postoperative results but also to demonstrate perioperatively the techniques of the cases to other surgeons. There are many situations in plastic surgery for which accurate intraoperative documentation is essential. Photography in the operating room is necessary for

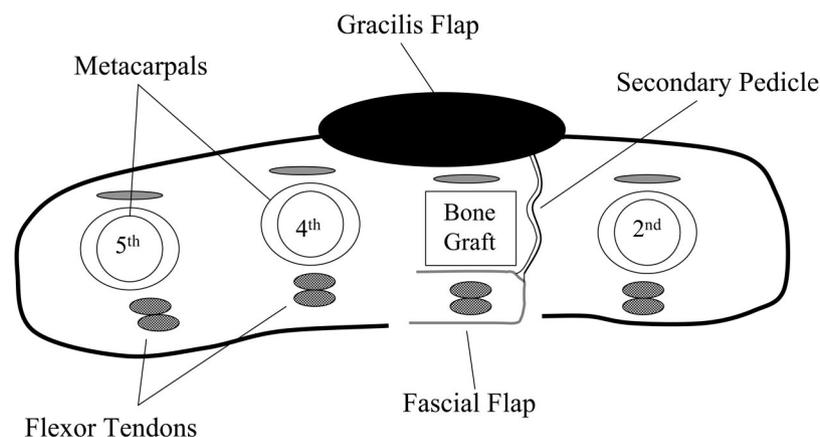


FIG. 1. Illustration of the gracilis flap with the fascial flap based on the secondary pedicle.

documentation of the techniques that are used, interesting or new surgical cases, and unsuspected findings.¹

To avoid loss of time and interruption of the sterile environment, the digital camera is placed in a sterile nylon bag on the nurse's table. Transparent nylon bags of 15 × 35 cm, opened on the diaphragm side, are used. Nylon bags are sterilized with ethylene oxide.

The Nikon Coolpix 775 digital camera is preferred because it has many advantages. It is small, which makes it easy to carry and use in a nylon bag; it is digital, so you can take as many photographs as you want; you can easily modify your unwanted photographs; and with its zoom lens, you can take photographs even from a distance of 4 cm.

Before the start of the operation, the digital camera is placed in a sterile nylon bag on the nurse's table far away from the solutions (Fig. 1, *above, left*), so that the surgeon or the assistant can easily handle the digital camera whenever necessary. Because the digital camera is in a sterile nylon bag, the surgeon is free to take photographs without worrying about sterility. It is easy to control and revise the photographs that have been taken, and you save time by doing it yourself. Because the digital camera is in a sterile environment, it can safely be brought as close as 4 cm to the operating table and qualified photographs can be taken frequently (Fig. 1, *above, right*, and *below, left and right*).

To avoid the unwanted pictures caused by wrinkles in the nylon bag in front of the diaphragm, it is important to double-check the nylon before taking pictures. Having a reason in the field of shooting, such as too much blood composition, may have an undesirable effect on the quality of the photograph, so to overcome this situation, the white balance of the camera must be arranged.

Surgeons can easily use their cameras while operating using this practical method.

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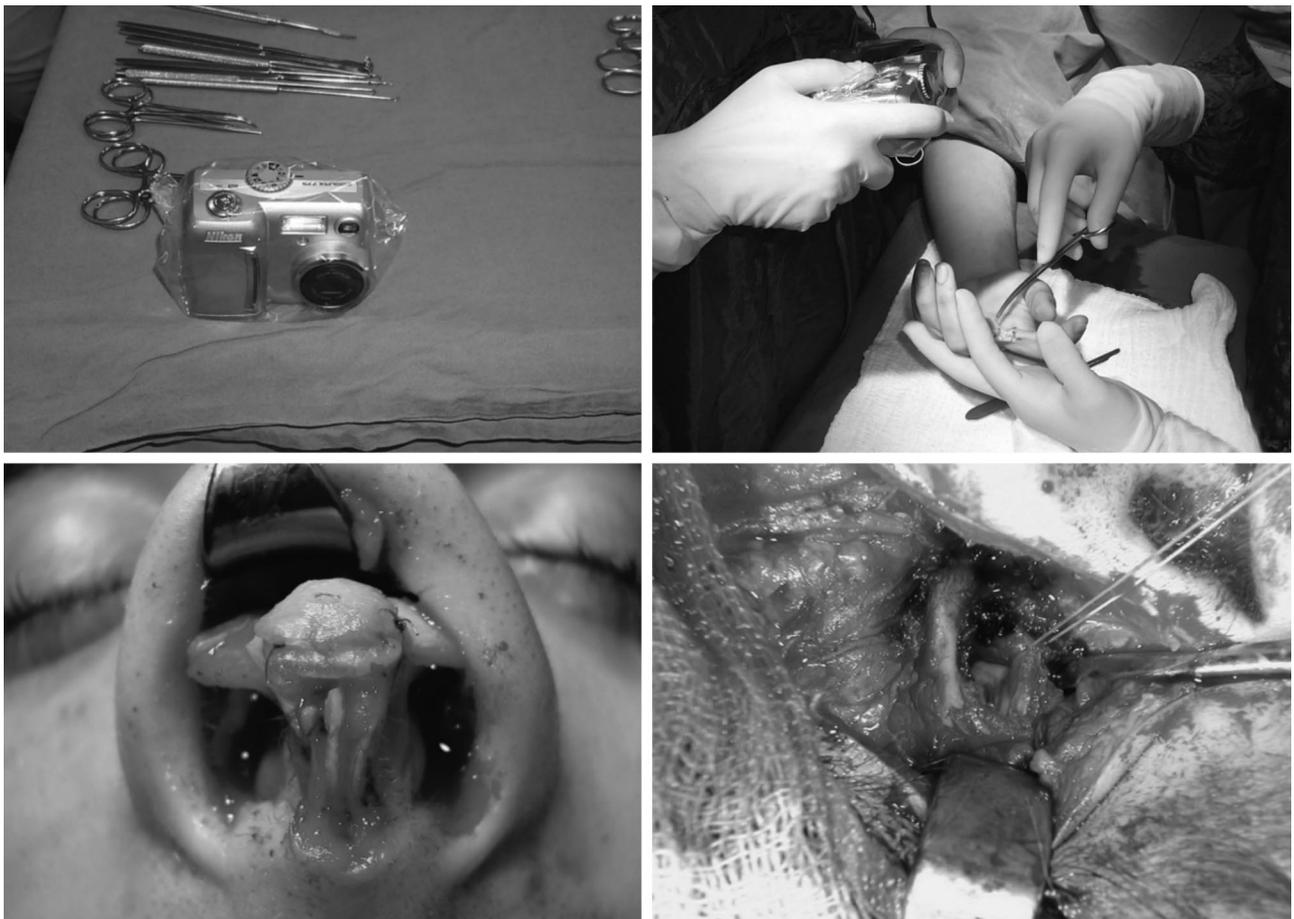


FIG. 1. (*Above, left*) The digital camera is placed in a sterile nylon bag on the nurse's table away from the solutions. (*Above, right*) Because the digital camera is in a sterile environment, it can safely be brought as close as 4 cm to the operation table. (*Below, left*) View of an open rhinoplasty operation. (*Below, right*) View of a temporomandibular joint and disk.

REFERENCE

1. Di Saia, J. Photography. In B. M. Achauer (Ed.), *Plastic Surgery: Indications, Operations, and Outcomes*, Vol. 1. St. Louis: Mosby, 2000. Pp. 133-139.

A TECHNIQUE TO LOCALIZE THE RADIO-OPAQUE FOREIGN BODY

Sir:

Surgical removal of impalpable foreign bodies within soft tissue may be technically challenging and frustrating. It is important to locate and remove the object with minimal incision and surgical dissection.

Numerous imaging techniques have been described to aid the surgeon. Glass, gravel, and metal are commonly identified on two-plane radiographs.¹ Ultrasound has increased in popularity as an accurate method of identifying an object that is not radio-opaque and defining its anatomical relations, but it requires an experienced operator and is seldom available intraoperatively.² Intraoperative use of an x-ray image intensifier and a metallic pointer is common, but localization in two planes can be difficult. We describe a simple intraoperative technique to map a foreign body in two planes.



FIG. 1. The radio-opaque grid in place.



FIG. 2. The position and orientation of the foreign body in relation to the grid.

A length of the radio-opaque strip is removed from a gauze swab and the swab is discarded immediately as a precaution. The strip is divided and laid out in a grid pattern on the skin under which the foreign body is thought to be (Fig. 1). The strips are kept in place with sterile petroleum jelly or liquid paraffin. X-ray image intensifier views in two planes allow accurate mapping of the foreign body, and the grid is used as a fixed reference to facilitate surgical removal (Fig. 2). This technique is particularly useful for locating multiple foreign bodies without requiring multiple x-ray exposures.

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REFERENCES

1. Anderson, M., Newmeyer, W., and Kilgore, E. Diagnosis and treatment of retained foreign bodies in the hand. *Am. J. Surg.* 144: 63, 1982.
2. Bray, P. W., Mahoney, J. L., and Campbell, J. P. Sensitivity and specificity of ultrasound in the diagnosis of foreign bodies in the hand. *J. Hand Surg. (Am.)* 20: 661, 1995.

DIFFERENT OPINION ON BOTOX

Sir:

Nowadays a lot of credit has been given to Botox (botulinum toxin type A; Allergan, Inc., Irvine, Calif.). Its fame is such that numerous patients have been convinced that many surgical operations can be replaced by injections of this product. Moreover, they believe that an extremely satisfactory aesthetic result can be obtained without the risks and high costs of an operation. The rather simple technique required in its application does not necessitate any great skill, and its cost is also quite reasonable. Moreover, it does obtain satisfying results.

The Botox party, where treatment is given at a beauty salon or hairdresser's, and its inappropriate advertising are all elements that favor this "superficial" attitude. However, these false expectations clash with some of its inherent aspects, such as the limited duration of the results obtained, the possibility of side effects, and the frequent presence of a very static result that is consequently unnatural (paralysis, although limited to certain muscles or groups of muscles, has always been rightly considered a pathology).

"The glabellar frown lines," for example, are often treated with Botox. Their cause is determined by the presence of a hypertrophy of the procerus muscle, a midline muscle that originates from the nasal bones and upper lateral cartilages and finishes at the dermis of the glabella. Hypertrophy of this muscle causes displacement of the medial eyebrow and a



FIG. 1. Preoperative photograph of a 68-year-old woman. The “typical” areas to be operated on are marked with blue ink.

transverse line at the nasal radix. Other muscles involved are the corrugator muscles that originate from the periosteum of the superior medial orbital rim and finish in the dermis of the medial eyebrow skin. These muscles then divide into a medial portion, whose contraction causes the inferior and medial displacement of the eyebrow and the vertical oblique lines of the glabella, and a lateral portion of minor interest, which produces a slight lateral brow elevation. The action of this toxin is capable of paralyzing the indicated muscles, relaxing the wrinkles, and lifting the eyebrow, but at the same time it also eliminates the facial expressions of the glabellar region and thus produces an unnatural expression.

Since we personally are not fond of Botox, we prefer to propose a specific surgical treatment of this precise area. After infiltration of a local anesthetic in this area, a no. 11 scalpel blade is used to make a tiny incision through the whole thickness of the vertical wrinkle. This permits the insertion of tenotomy scissors to separate the skin from the underlying muscles in the inferbrow area. The muscles, whose fibers are then partially removed by means of a biopsy forceps, are cut and dissected. Moreover, if an area of depression is formed, it is always possible to reinsert a graft of the removed muscular tissue. The limitation of this technique is the inability to identify and isolate nerve structures, which compels us to limit the intervention to an area that extends no more than 1.6 cm lateral to the midline. The supraorbital and supratrochlear neurovascular bundles are thereby avoided. An immediate result is obtained with a considerable reduction of wrinkles and a relaxation of the medial portion of the eyebrow; the patient’s expressive capacity remains intact. The remaining scar is not in the least noticeable after only a few days. Instead, to lift the third mediolateral muscle of the eyebrow, which is also an area frequently treated with Botox, removal of the cutaneous tissue is sufficient. This corresponds to the area that is to be lifted at the level of the frontotemporal area, where the hairline begins. Then an undermining on the subcutaneous plane that ends a few centimeters from the eyelash rim must be carried out. The scar placed at the origin of the hairline is also completely hidden, and the desired result is obtained without any alteration of the facial expressions of the frontal area.

Even the external orbital canthus area can be improved by means of direct access inside one of those wrinkles where we normally terminate the incision in an inferior blepharoplasty,

and undermining the area involved and dissecting the orbicular muscle that causes some “crow’s feet.” In this case as well, the result obtained is extremely natural, even though it is inferior to Botox in terms of smoothing the wrinkles.

Moreover, it is possible to combine the various techniques many times (Fig. 1), all of which have been amply described and published in various scientific articles. This procedure can be performed on an outpatient basis and local anesthesia can be used, since very little trauma results and very few complications or side effects are involved. Moreover, the final results are more than adequate when one takes into consideration the expectations of our patients, who turn to us because we are plastic surgeons.

The aim of this Viewpoint is not to launch a crusade against Botox, but rather to communicate the uneasy feelings we have as we see a steady increase in the frequency in which the surgical competence of Botox and its application is acclaimed in medical congresses and scientific magazines, without taking into consideration the fact that as surgeons we always have to evaluate what is the best solution for our patients. Therefore, we would like to conclude by stating that we should repropose what we can obtain surgically with greater enthusiasm in regard to the treatment of the facial areas which presently appear to be exclusively in the competence of the “notorious” Botox.

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“FLAG” DRAIN FIXATION: A SECURE METHOD

Sir:

In many cases, the first surgical procedure that the young resident in plastic surgery learns is the fixation knot using the figure of eight.^{1,2} In this way, the resident uses the adhering properties of silk or cotton sutures, which are first knotted on the skin and then crossed around the drain tube.³ Silk sutures secure well but can be contaminated, whereas monofilament sutures do not get contaminated but have a tendency to slip.⁴⁻⁶

We present a technique to allow for the best of both worlds, that is, monofilament sutures plus a secure drain. The Steri-Strip “flag” is a simple way to secure a tube drain. First, the proximal portion of the exposed tube is wrapped with a 12 × 100-mm piece of Steri-Strip. A monofilament thread is then passed through this Steri-Strip “flag” before being wound three or four times around the tube and knotted (Fig. 1).

This method is of practical use in situations where drains need to be in situ for a long period of time, such as in large abdominoplasties, rotation flaps for bed sores, or breast reconstruction.^{7,8} This method is simple to execute, effective, and safe because it avoids the risk of the absorbent interlaced sutures.

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FIG. 1. (Above) The Steri-Strips on the drain tube near the skin. (Center) A knot is made on the skin. (Below) The suture is then crossed into the little "flag" and around the drain tube.

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REFERENCES

1. O'Flynn, P., and Akhtar, S. Effective securing of a drain. *Ann. R. Coll. Surg. Engl.* 81: 418, 1999.
2. Hormbrey, E., Pandya, A., and Humzah, D. Drain fixation made foolproof. *Ann. R. Coll. Surg. Engl.* 82: 290, 2000.
3. Nancarrow, J. D., Beg, M. S. A., and Murray, D. S. Wordley technique of drain fixation. *Br. J. Plast. Surg.* 40: 542, 1987.
4. Van Winkle, W., Jr., Hastings, J. C., Barker, E., Hines, D., and Nichols, W. Effect of suture materials on healing skin wounds. *Surg. Gynecol. Obstet.* 140: 7, 1975.
5. Osterberg, B. Enclosure of bacteria within capillary multifilament sutures as protection against leukocytes. *Acta Chir. Scand.* 149: 663, 1983.
6. Katz, S., Izhar, M., and Mirelman, D. Bacterial adherence to surgical sutures: A possible factor in suture induced infection. *Ann. Surg.* 194: 35, 1981.
7. Scevola, S., Youssef, A., Kroll, S. S., and Langstein, H. Drains and seromas in TRAM flap breast reconstruction. *Ann. Plast. Surg.* 48: 511, 2002.
8. Lim, P. V., and Jalaludin, M. A. An alternative method for securing surgical drains in the neck. *Med. J. Malaysia* 55: 141, 2000.

PERFECTIONISM AND INTEREST IN COSMETIC SURGERY

Sir:

Little is known about the personality traits and the interpersonal dynamics linked to contemplating and undergoing cosmetic surgery. One often-discussed (but untested) belief is that perfectionism influences interest in and dissatisfaction with cosmetic surgery.^{1,2} In what follows, we describe independent dimensions of perfectionism, outline a model relating perfectionism to cosmetic surgery, and present novel evidence supporting the model.

Trait perfectionism focuses on dispositions and attitudes associated with perfectionism (e.g., rigid self-expectations), whereas perfectionistic self-presentation centers on how perfectionists behave in expressing their perfection to others (e.g., self-promotional behaviors). Two dimensions of trait perfectionism are relevant to cosmetic surgery: self-oriented perfectionism (i.e., requiring perfection of oneself) and socially prescribed perfectionism (i.e., perceiving others require perfection of oneself). Furthermore, two facets of perfectionistic self-presentation are important to cosmetic surgery: perfectionistic self-promotion (i.e., promoting an image of perfection to others) and nondisplay of imperfection (i.e., concealing perceived displays of imperfection from others). Trait perfectionism and perfectionistic self-presentation are empirically and conceptually distinct.^{3,4} For example, striving to be perfect (or self-oriented perfectionism) may involve a desire to appear as perfect (e.g., perfectionistic self-promotion), but only among a subset of self-oriented perfectionists. A diagram of the aforementioned perfectionism model is provided in Figure 1.

A link between perfectionism and cosmetic surgery is expected on several grounds. Perfectionists are often displeased with their bodies and frequently attempt to change them.² Cosmetic surgery may allow perfectionists to transform aspects of their bodies that cannot be modified by diet or by exercise (e.g., nose shape). Perfectionists may also regard cosmetic surgery as an opportunity to perfect the self and/or to eliminate perceived imperfections.

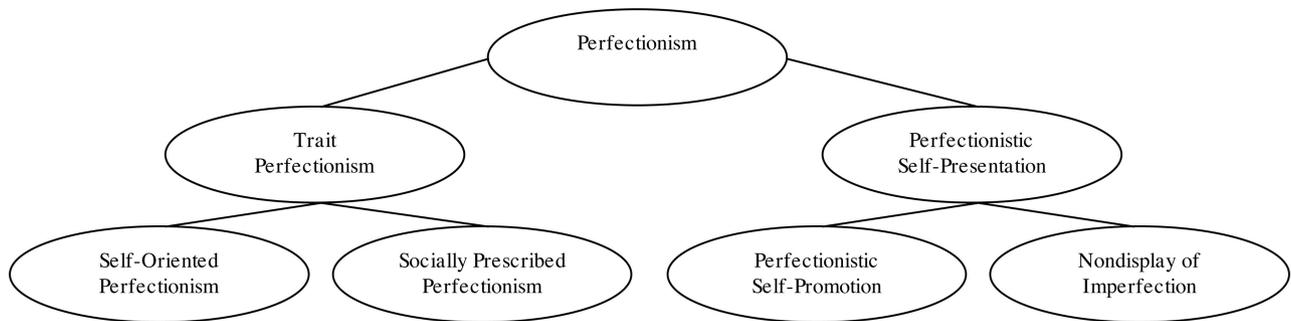


FIG. 1. An abbreviated version of Hewitt and Flett's perfectionism model.

More specifically, for socially prescribed perfectionists, interest in cosmetic surgery may be stimulated by responsiveness to societal pressures for perfect appearance or by efforts to satisfy perceived demands from significant others. Furthermore, self-oriented perfectionists' unending self-scrutiny, fault-finding predilection, and stringent self-criticism may bring about body dissatisfaction and generate interest in cosmetic surgery. In addition, for perfectionistic self-promoters, who tend to behave in a prideful, narcissistic manner, interest in cosmetic surgery may reflect a desire to use their appearance to garner attention. Physical attractiveness is seemingly essential to anyone striving to present himself or herself in such an attention-grabbing fashion. Lastly, nondisplayers of imperfection may experience interest in cosmetic surgery if physical defects or age-related changes are detected, particularly when such imperfections are visible to others. In fact, cosmetic surgery and related surgical procedures may be the ultimate form of nondisplay of imperfection!

A meta-analysis of three of our studies involving 570 (or more) women from separate populations (i.e., university students and gym members) supports the proposed model. Weighted correlations (a meta-analytic technique involving aggregation of correlations across investigations) showed the following significant correlations between perfectionism and interest in undergoing cosmetic surgery: self-oriented perfectionism ($r[570] = 0.09, p < 0.005$), socially prescribed perfectionism ($r[570] = 0.18, p < 0.005$), perfectionistic self-promotion ($r[862] = 0.23, p < 0.005$), and nondisplay of imperfection ($r[862] = 0.21, p < 0.005$). Correlations were weighted according to the sample sizes of the three studies. The correlation for perfectionistic self-promotion was significantly greater than the correlation for self-oriented perfectionism ($z = 2.66, p < 0.005$). No other significant differences were detected between correlations. A correlation of less than 0.25 is usually described as an effect that is small in magnitude. Notably, all findings were essentially unchanged after controlling for two putative correlates of interest in cosmetic surgery (i.e., age and body mass index). Finally, it is likely that the strength of the association between perfectionism and interest in cosmetic surgery changes depending on the group studied (e.g., aspiring actors with perfectionistic tendencies may be especially interested in cosmetic surgery).

The above findings suggest the importance of perfectionism in motivating pursuit of cosmetic surgery and represent the first evidence linking perfectionism to cosmetic surgery. Since interest in cosmetic surgery necessarily precedes actually having cosmetic surgery, our evidence may be viewed as an important first step in understanding the perfectionism-cosmetic surgery nexus. Lastly, cosmetic surgeons should be mindful that perfectionistic tendencies (e.g., unrealistic ex-

pectations) are likely to generate both interest in and dissatisfaction with cosmetic surgery.^{1,2}

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REFERENCES

1. Goldwyn, R. M. *The Patient and the Plastic Surgeon*. Boston: Little, Brown, 1991. P. 70.
2. Hewitt, P., Sherry, S., Flett, G., and Shick, R. Perfectionism and cosmetic surgery. *Plast. Reconstr. Surg.* 112: 346, 2003.
3. Hewitt, P., and Flett, G. Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *J. Pers. Soc. Psychol.* 60: 456, 1991.
4. Hewitt, P., Flett, G., Sherry, S., et al. The interpersonal expression of perfectionism: Perfectionistic self-presentation and psychological distress. *J. Pers. Soc. Psychol.* 84: 1303, 2003.

WHERE PLASTIC SURGERY HAS GONE THE PAST FEW YEARS

Sir:

As I approach the autumn/winter of my professional career, I believe that I have the right to reminisce, philosophize, and wonder at whatever happened to the ideals of practicing medicine which we were taught religiously years back.

Ingrained in our medical training was the concept that we were to serve the sick, decrease suffering, and follow the Hippocratic oath. However, such ideals are now somewhat lacquered with the reality of what the practice of medicine has

become, dealing with managed care, medical liability, an increasing doctor population, decreasing physician income, and removal of the “pedestal.”

So plastic surgery—which is lucrative, fashionable, and, according to the “media,” the specialty of today and the future—attracts all who want to become plastic surgeons, but 7 to 8 years of training is somewhat daunting, and because of economic dependency many practitioners take specialty shortcuts. So how does a young plastic surgeon succeed? Well, the present phrase and *mission statement* seems to be “promote yourself” in the media to get instant visibility and “credibility.” In today’s marketing media frenzy it is easy to become an instant 15-minute celebrity—a real “plastic surgical star”—in the hopes of cashing in on all those big clients and bucks.

But remember that we are surgical craftsmen, not the biological artists we propose to be. Our patients see us very much like dentists, plumbers, gardeners, and so on, not as social entities to enjoy and befriend, thank God! How hard would it be to see our patients day and night, not only professionally but also socially? Unfortunately, some become so overwhelmed by the ego-energizing “enema smoke” that is blown at them that they believe the superficial accolades that are perpetually thrown at them from public sources.

I am disappointed that the professionalism that I once coveted and honored in plastic surgery has now slowly been degraded and reduced to a profit-seeking milieu of competitive individuals who reinforce the general belief of our surgical colleagues that we are lesser surgeons, nothing more than technical surgical cosmetologists whose aim is to reap monetary profits at whatever cost.

And who is to blame for such concepts? We are, of course. In our zeal to become front-running beauty surgeons, we have become atavistic self-promoters. Like bugs seeking the light, we look for ways to promote, market, advertise, and push ourselves in front of a gullible, insatiable public hungry for plastic surgical reality entertainment.

Our specialty is not one that *entertains!* We rebuild, reconstruct, and improve. It is time that we once again become the practitioners of an art of surgical healing, not *medical jesters and buffoons!*

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