Brachial Suction-assisted Lipoplasty and Brachioplasty

The author discusses how wide experience with lipoplasty techniques, the development of modified brachioplasty procedures, and improved understanding of skin retraction have reduced surgeon discomfort about brachial lipoplasty and brachioplasty.

In the Fall 1995 issue of Aesthetic Surgery Quarterly, Dr. Gerald H. Pitman discussed lipoplasty of the arms\(^1\) and I discussed brachioplasty.\(^2\) Since then, some very interesting developments have led me to have second thoughts about both of these procedures.

As recently as the 1980s, many plastic surgeons chose not to perform aesthetic surgery of the upper arm because very little had been written or taught about this subject. Moreover, the results were less than optimal, leading to surgeon unease. Because of the continued teaching efforts of body contour surgeons like Baroudi, de Souza Pinto, Gilliland, Lockwood, Teimourian,\(^3-8\) Pitman, and Vogt, surgeon discomfort about such procedures has decreased.

The emergence of suction-assisted lipoplasty (SAL) as the most popular aesthetic surgical procedure has given us wide experience that can be applied to the contouring of the upper arm. We have gained a better understanding of which areas are favorable or unfavorable for treatment, and we now include suction of the para-axillary region routinely, including the anterior and posterior axillary folds (Figure 1).

In 1995 I proposed the following hypothesis: “In hereditary and idiopathic brachial enlargement, if lipoplasty is

Figure 1. Favorable and unfavorable areas for SAL. Note that suction of the para-axillary region, including the anterior and posterior axillary folds, is now routinely included.
performed early enough, volume reduction and skin retraction may be permanent.” This is proving to be the case. For example, a 34-year-old patient who underwent a 300-mL extraction in each upper arm demonstrated good upper arm contour and skin retraction 3½ years later (Figure 2). Whenever enlargement of the upper arm is familial, the earlier the lipoplasty is performed, the better the chance for long-lasting improvement.

Gilliland was one of the first to explore aggressive lipoplasty in the older woman. In a 55-year-old woman in whom 125 mL was extracted by ultrasound-assisted lipoplasty (UAL) and 400 mL by SAL, there was good definition of the inferior border of her upper arm and good skin retraction 6 months after the procedure (Figure 3). Many of us have been uncomfortable about proposing surgery in the upper arm because of our inability to deliver a “home run” each time (we might have to settle for a “single,” “double,” or “triple”). This is often quite satisfactory to the patient, as long as realistic expectations have been discussed in the preoperative evaluation. In addition, the patient should be informed during the initial evaluation that if too much wrinkling occurs as a result of lipoplasty, a modified brachioplasty might benefit her further.

In many instances, an effective brachioplasty can be performed without the necessity of an incision all the way from the axilla to the elbow. A modified brachioplasty might involve a generous ellipse of the axilla that can pull up the proximal inferior border of the upper arm, or a T-shaped excision that includes the axillary ellipse and extension above and below the bicipital groove of the upper arm (Figures 1 and 4).

When a modified brachioplasty is being performed, there are some helpful pointers to remember. The axillary ellip-

---

**Figure 2.** A, C, Preoperative views of a 34-year-old woman who underwent a 300-mL extraction in each upper arm. B, D, Postoperative views 3½ years after SAL.

**Figure 3.** A, C, Preoperative views of a 55-year-old woman who underwent extraction of 125 mL by UAL and 400 mL by traditional lipoplasty. B, D, Postoperative views 6 months after the procedure.
tical skin excision should be performed after SAL of the anterior and posterior axillary folds has resulted in skin laxity. If the patient has excessive skin in the proximal portion of the inferior border of the upper arms, then the T incision can be used; in this case, SAL is usually performed on the rest of the upper arms. The patient should be warned that this will not completely eliminate the laxity of the inferior border, but it will be preferable to the longer incision that would extend farther down toward the elbow. A significant pull can be accomplished at the time of the primary procedure, as outlined in Figure 4.

The modified technique can also be used in patients who might be appropriate candidates for a full brachioplasty but simply do not want to have the long scar; however, the patient should be advised that more than one skin resection might be necessary to obtain optimal results.

The greatest pitfall of the modified brachioplasty arises when the patient is not warned of its limitations preoperatively. Another significant pitfall is the possibility of a hypertrophic scar that might be visible for 6 to 12 months. To treat the scar and decrease its severity, silicone sheets are frequently used at night for compression. This is started at the sixth postoperative week.

In the 53-year-old woman shown in Figure 5, a modified brachioplasty combined with SAL of the upper arm significantly reduced the upper arm diameter, providing a better axillary upper arm angle and better definition of the superior border; moreover, the scar is very accept-

able. Of course, there might still be patients in whom a full brachioplasty is required, such as those with massive weight loss and those who have hereditary poor elasticity in the skin of the upper arm.

With a greater understanding of the benefits and limitations of lipoplasty as well as new approaches to performing modified brachioplasties, plastic surgeons are now less reluctant to offer patients aesthetic surgery of the upper arm. When patients are encouraged to have realistic expectations about the potential results of these procedures, patient and surgeon satisfaction can be significantly improved.

References
3. Baroudi R, Vogt P. Brachioplasty and brachial suction-assisted lipecto-


Reprint orders: Mosby, Inc, 11830 Westline Industrial Drive, St Louis, MO 63146-3318; phone (314) 453-4350; reprint no. 70/1/115150