ISSN 2035-5092

UDPS

UpDate in Plastic Surgery

Vol. 2, 1, 2009

Periodico quadrimestrale - Spedizione in abbonamento postale 45% - art. 2 comma 20/B legge 662/96 - Milano
In caso di mancata consegna restituire al mittente che si impegna a pagare la relativa tassa.

ASSECE ASSOCIAZIONE EUROPEA DI CHIRURGIA ESTETICA
EUROPEAN ASSOCIATION OF AESTHETIC SURGERY

SCRIPTA MANENT EDIZIONI

UDPS
UpDate in Plastic Surgery

Vol. 2, 1, 2009

Indice

Editorial Staff

Direttore Responsabile	*Pietro Cazzola*
Direttore Generale	*Armando Mazzù*
Direttore Marketing	*Antonio Di Maio*
Consulenza grafica	*Piero Merlini*
Impaginazione	*Stefania Cacciaglia*

Regist. Tribunale di Milano n. 774 del 30/12/2008
Scripta Manent s.n.c. Via Bassini, 41 - 20133 Milano
Tel. 0270606091/0270606080 - Fax 0270606917
E-mail: scriman@tin.it
Abbonamento annuale (3 numeri) Euro 50.00
Pagamento: conto corrente postale n. 20350682
intestato a: Edizioni Scripta Manent s.n.c.
via Bassini 41- 20133 Milano
Stampa: Arti Grafiche Bazzi, Milano

ASSECE ASSOCIAZIONE EUROPEA DI CHIRURGIA ESTETICA
EUROPEAN ASSOCIATION OF AESTHETIC SURGERY

SCRIPTA MANENT EDIZIONI

Minimal incision medial brachioplasty: two years experience.

Mohamed R. El-Hadidy, Hossam El-Din A.* Ismael, Al-moddather M. El-Hadidy, Omar O. Shouman, Loai El-Bassiony

Plastic and Reconstructive Surgery Unit, Mansoura University Hospital, Egypt.

Summary

Minimal Incision Medial Brachioplasty: two years experience.

Brachioplasty is an aesthetic reshaping of the upper arm after removal of excess medial skin and fat. The growing popularity of bariatric surgery has increased the number of brachioplasties performed. One of the major drawbacks of brachioplasty is the unsatisfactory appearance of the surgical scar. Minibrachioplasty, that can achieve much of the improvement of a traditional brachioplasty while concealing the scars within the confines of a short-sleeve shirt or blouse. Over two years, 15 female patients were seen seeking for brachioplasty. Their ages range from 25 to 55 years. All patients were examined in an upright position with arms abducted at a 90 degree angle in relation to the body. Patients were categorized according to the skin tone and amount of fat into two groups. Group 1 included ten patients with excess fat and a moderate degree of skin laxity. This group underwent minimal incision medial brachioplasty associated with liposuction. Group 2 included five patients with massive weight loss after bariatric surgery presenting little fat tissue, severe brachial ptosis, and poor skin quality, and we used a buried de-epithelialized flap instead of excision of skin to augment the arm. Follow-up of these patients was about 18 months. All patients were pleased with their results. Our results showed that all patients achieved significant reductions of 15% to 25% in arm circumference measurements, and the resulting scars were smooth, flat and inconspicuous. Wound infections and small areas of incision dehiscence had occurred in 2 elderly patients. We treated them conservatively with oral antibiotics and local wound care and do not necessitate reoperation. Minimal incision medial brachioplasty technique can be used as the first choice procedure for most patients seeking arm reduction.

Key words: *Minimal incision medial brachioplasty*

INTRODUCTION

Brachioplasty is the aesthetic reshaping of the upper arm after the removal of excess medial skin and fat. The new contour should be attractive, the scars should be inconspicuous, and the complications should be minor. After bariatric surgery and massive weight loss, patients evolve a bizarre arm deformity that extends through the axilla and onto the chest[1].

One of the major drawbacks to brachioplasty has been the unsatisfactory appearance of the surgical scar. Changes in the location of incisions and the combination of liposuction with superficial excision have led to decreased risk to underlying nerves and lymphatics, with improved scarring and decreased postoperative edema. Minibrachioplasty highlights the evolution of upper arm contouring, because it combines the use of liposuction with a well-camouflaged area of excision to deliver a refined contour with minimal scarring to the select patient[2].

This article describes a minimal incision medial brachioplasty technique that can achieve much of the improvement of a traditional brachioplasty while concealing the scars within the confines of a short-sleeve shirt or blouse. Minimal incision medial brachioplasty can be performed either separately or in combination with other body-contouring procedures.

PATIENTS AND METHODS

Over 2 years, 15 female patients were seen seeking for brachioplasty. Their ages ranged from 25 to 55 years. All patients were examined in upright position with arms abducted at a 90 degree angle in relation to the body. The amount of fat tissue and the degree of skin flaccidity were evaluated in relation to body weight. Patients were categorized according to the skin tone and amount of fat into two groups .

In group 1, ten patients with excess fat and moderate degree of skin laxity associated with overweight undergo liposuction and minimal incision medial brachioplasty.

In group 2, five patients with massive weight loss after bariatric surgery possessing little fat tissue and poor skin quality underwent minimal incision medial brachioplasty with buried de-epithilized flap. Patients' arm circumferences were photographed and measured pre- and postoperatively. A written consent was obtained from all patients. Patients were informed about the potential complication of this procedure as visible scars, infection and nerve affection.

Patients were marked in the upright position with the anterior and posterior limits of the axillary incision marked in the axillary skin crease with the arm at the side of the patient. The arm is then abducted to 90 degrees and the two points are connected in the axillary fold, delineating the final position of the scar. Using medial traction on the upper medial arm skin, the amount of skin excision was marked in an elliptical fashion. This usually measures 3 to 5 cm in vertical distance (Figure 1).

In group 1, under general anesthesia, the area at the medial aspect of the arm where liposuction will be done is marked and the opening for the liposuction cannula was marked at the lower medial aspect of the arm.

Incisions in the axilla (arm pit) were made in the shape of an ellipse. We use an infiltration of anesthetic solution with 500 ml of saline solution, 20 ml of lidocaine 2%, 3 ml of sodium bicarbonate 8.4%, and 1 ml of adrenaline 1:1000 infiltrated through the skin area to be excised and through a small incision posterior to the elbow.

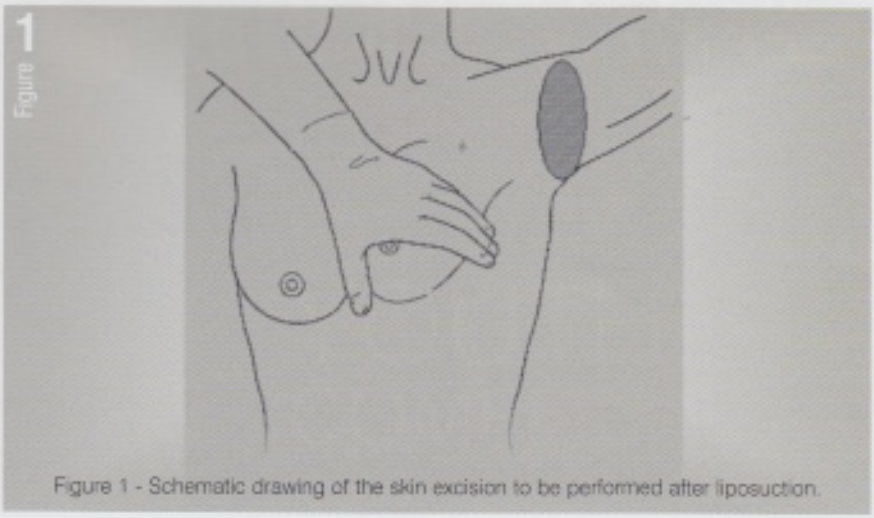

Figure 1 - Schematic drawing of the skin excision to be performed after liposuction.

Liposuction was performed throughout the posterior one-half of the circumference of the upper arm with a 3-mm *Mercedes cannula*. The liposuction was performed in both the deep and superficial planes to maximize skin contracture.

After Liposuction was performed to remove unwanted fat, excess skin was excised. Anchoring sutures were used to control the tension of the wound closure and scar from widening.

In group 2, with the patients under general or local anastesia, we used a buried de-epithelialized flap instead of an excision of skin in order create a more youthful appearance of the arm while supporting the scar on a bed of dermis. Closure is performed in a layered fashion with 3-0 Vicryl interrupted sutures in the deep dermis and 4-0 polydioxanone running subcuticular suture, and the skin is reapproximated and dressed with *Dermabond*.

The liposuction ports are closed with a single 6-0 fast-absorbing suture. No drains are used in this procedure. After the procedure was completed, a dressing of *Steri-Strips*, gauze, and a tubular elastic garment was applied. The arms were wrapped and patients were cautioned to keep their hands elevated at about heart-level and their arms straight at the elbow for the first two days following surgery to prevent swelling.

POSTOPERATIVE CARE

Antibiotics were administered perioperatively and continued for 3 days postoperatively. The patient is placed in a long-arm surgical garment which provides compression to the areas of liposuction, which is maintained for 3 weeks. The patient may shower 2 days after the procedure.

Patient activity is not limited after surgery and early ambulation is encouraged, though arm abduction is limited to less than 90 degrees for 3 weeks postoperatively. Patients were followed up for about two years.

RESULTS

Over two years, we performed a minimal incision medial brachioplasty on 15 patients.

The operative time was approximately 90minutes for the two sides, but frequently the time was halved by team surgery.

Follow-up of these patients was about 18 months. All patients were pleased with their results. All patients had significant improvement in the appearance of the upper arm.

The results showed that all patients achieved significant reductions of 15% to 25% in arm circumference measurements, and the resulting scars were smooth, flat and inconspicuous. Wound infections and small areas of incision dehiscence had occurred in 2 elderly patients. We treated them conservatively with oral antibiotics and local wound care and do not necessitate reoperation. Nerve injury, hypertrophic scarring, major wound complications, and lymphedema have not been observed in our patients.

Figure 2 - A 42 years old female patient who undergo minibrachioplasty and liposuction of the medial aspect of the upper arm. Note the good skin tone and moderate obesity.

Figure 2a Preoperative view of the left arm.

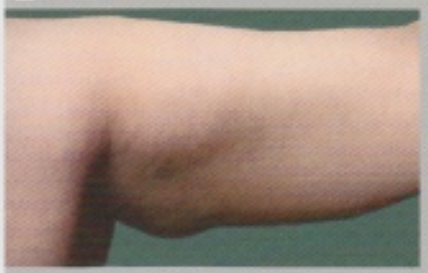

Figure 2b Postoperative view of the left arm.

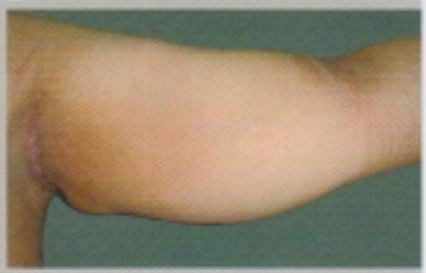

Figure 2c Preoperative view of the right arm.

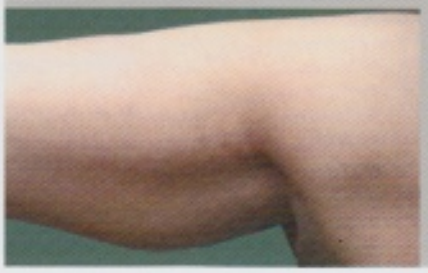

Figure 2d Postoperative view of the right arm.