Brachioplasty

Evaluation of different techniques

Thesis

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Abstract

Brachioplasty is aesthetic reshaping of the upper arm after removal of excess medial skin and fat.

Patients seeking brachioplasty complained of generalized obesity with marked obesity in the arms or the majority of them complained of skin redundancy of the arms post massive weight loss

Brachial ptosis was clinically classified based on the amount of adipose tissue deposit and the degree of ptosis.

Different techniques used for brachioplasty as liposuction or skin excision by different types of skin incision according to the degree of fat deposit, redundancy and skin ptosis, or both were used in this study.

Key word:

- Brachioplasty.
- Skin
- Brachioplasty as liposuction Verapamil.

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Introduction

Brachioplasty is aesthetic reshaping of the upper arm after removal of excess medial skin and fat, ***(Hurwitz & Holland, 2006).***

Many patients who wish to improve the shape of their upper arms have a considerable surplus of skin. The cause can be, for example, massive weight loss, but the process of skin aging can also leave such signs, ***(Werner L. Mang, 2005).***

Brachial ptosis was clinically classified based on the amount of adipose tissue deposit and the degree of ptosis. This system offers guidelines for graduated treatment of fat deposit and brachial ptosis. Five groups of upper arm problems are described, as follows: stage 1, patients with minimal fat deposit and no ptosis; stage 2a, patients with moderate fat deposit and grade 1 ptosis; stage 2b, patients with severe fat deposit and grade 2 ptosis; stage 3, patients with severe fat deposit and grade 3 ptosis; and stage 4, patients with minimal or no fat deposit and with grade 3 ptosis, ***(El Khatib HA.2007).***

During the course of life, the upper arm demonstrates skin relaxation and fat deposits that become increasingly evident, particularly with age. However, the degree of skin ptosis and accumulation of subcutaneous fat varies from patient to patient. Therefore, it is critical to evaluate each patient individually, to inform the patient of the available options, and to tailor the procedure to his or her needs, whether liposuction or traditional brachioplasty, ***(Teimourian B & Malekzadeh S. ,1998).***

Massive weight loss (MWL) is defined as 50% or greater loss of the *excess* weight ***(Shermak MA, et al., 2006).***

The number of patients with history of extreme overweight and massive weight loss (MWL) has risen significantly. Whether achieved through bariatric surgery or diet and exercise, massive weight loss often results in areas of loose and excess skin. Redundant skin and fat can be seen anywhere on the body following MWL. This group of population presents many unique problems and challenges as Conventional approaches do not adequately gratify to the needs of these patients ***(Shrivastava P., et al., 2008).***

After a rapid and massive weight loss, there is a sudden change in Body Mass Index (BMI) which leads to skin and soft tissue excess and poor skin tone. There is often a 'deflated appearance'. The skin and the soft tissues fail to retract completely and become redundant, collapsing inferiorly and inferomedially from the characteristic areas of fat deposition ***(Shrivastava P., et al., 2008).***

With the ever-increasing number of patients undergoing surgical treatment for obesity, a growing number of patients are presenting for brachioplasty after massive weight loss. Brachioplasty is a safe and effective method of treating upper arm deformity in the massive weight loss patient by removing the excess upper arm skin and fat for aesthetic reshaping. ***(Jeffrey A., et al., 2008).***

A comprehensive preoperative evaluation is mandatory because the body-contouring procedures following MWL are often extensive with the potential for significant morbidity and even mortality ***(Rohrich RJ, 2001) and (Taylor & Shermak, 2004)***

Numerous procedures have been described to treat arm deformities. Although some aim to treat arm ptosis alone, several authors have described treating the arms in combination with the axilla, back, and chest, ***(Pitanguy, 1975) and (Hurwitz & Holland, 2006).***

Proper selection of the operative procedure and meticulous markings are very helpful in ensuring best placement of scars. The location and extent of any previous scars, the need for subsequent procedures at a later date and the degree of tissue laxity above and below the proposed scars must always be kept in mind while planning the incisions. Often the incisions are extended onto the lateral chest wall proximally and to the level of the elbow distally. The brachioplasty scars can be wide, long and often stay thick for many months, ***(Temourian B., 1998) and (Abramson DL., 2004).*** Excision by traditional T-type incisions, Double- ellipse marking and segmental resection closure technique and L-shape incision are different technique of brachioplasty,***(Aly A, et al.,2006) and (Hurwitz & Holland, 2006).***

Liposuction alone is rarely sufficient to provide the aesthetic result. It needs to be decided after clinical examination whether to directly perform a resection or to first deflate the significantly over-inflated arms by initial liposuction prior to performing an excisional procedure 6 months later. Most patients would require a brachioplasty to achieve the desired results, ***(Temourian B., 1998) and (Abramson DL., 2004).***

Brachioplasty itself is a procedure that may be associated with poor scar formation and other complications, such as seroma, paresthesias, neuroma, cellulitis, hypertrophic scar, and wound dehiscence. Another area of debate for surgeons performing brachioplasty is placement of the arm scar, with

proponents placing it in either the brachial groove or more posteriorly ***(Knoetgen J 3rd & Moran, 2006).***

Aim of Work

The aim of this study is to evaluate different techniques of brachioplasty in post massive weight loss, old age and obese patients as regard surgical techniques, aesthetic results and complication rate to determine which technique is more appropriate for each patient needing this type of surgery.