

Combined Rhytidectomy and Alloplastic Facial Implants

Daniel Schwartz, MD, DMD, Faisal A. Quereshy, MD, DDS*

KEYWORDS

• Rhytidectomy • Alloplastic • Facial implants • Combined

KEY POINTS

- Volume restoration is an important aspect of facial rejuvenation.
- Rhytidectomy techniques vary but must always address the patient's concerns, offer acceptable downtime, and be a safe and efficient option in the hands of the operating surgeon.
- Combining volume restoration with rhytidectomy can offer a superb result, which individual procedures may be unable to achieve.
- Many complications of rhytidectomy and alloplastic facial implants are easily avoided with patient selection, proper preoperative discussion and documentation, and meticulous surgical technique.

Introduction

From as early as the late nineteenth century, patients have sought the advice and expertise of surgeons to address undesirable changes of the aging face. Rhytids, being one of the major concerns, were initially treated by simple excision and stretching of skin. However, this method proved to be ineffective, because it left patients with unsightly scars and led to recurrence of wrinkles.¹ It was not until the late 1960s that Tord Skoog, a Swedish surgeon, introduced the idea of a deeper dissection, allowing for suspension of subcutaneous tissues rather than merely relying on the suspension of skin alone.² This concept was further explored and developed by Mitz and Peyronie, who described the superficial muscular aponeurotic system (SMAS).³ SMAS plication and imbrication along with deeper plane dissections have since been the accepted methods of rhytidectomy.

Although these techniques have greatly improved aesthetic outcomes and success of face-lift procedures, they do have their shortcomings. Rhytidectomy alone can achieve elimination or minimization of wrinkles and can address sagging tissues of the face; however, the goal of a more youthful face is difficult to attain without addressing facial volume loss. The general concept of removing tissue such as excess skin and fat, as is routine in traditional rhytidectomy, left many patients with a hollowed, and perhaps more aged, appearance. These results led to a paradigm shift in the treatment of the aging face. The idea of adding volume in desired amounts and

locations instead of only resuspension of soft tissues quickly became an important tenet of facial rejuvenation.

In addition to, and in conjunction with, autologous materials, alloplastic facial implants have been more widely used to restore lost volume. These procedures are successfully used as both a stand-alone therapy to treat volume loss and as combined therapy with rhytidectomy for a more comprehensive and effective approach to the treatment of the aging face.⁴

In this article, the basic principles and methods of each procedure are outlined individually, and then their use together as a combined therapy is discussed.

Rhytidectomy

The face-lift procedure is one that has evolved since its beginnings and continues to be modified and reinvented. There are multiple accepted techniques, and each surgeon has preferences based on specific circumstance and experience. Minimally invasive lifts offer the obvious advantage of limited downtime; however, they often sacrifice longevity of the effects of the procedure. Deep plane or subperiosteal face-lifts have been argued to result in a more natural appearance, but they introduce greater risk of facial nerve damage. The traditional or SMAS face-lift is probably the most widely used technique; it generally offers acceptable downtime for the patient and produces a desirable and lasting outcome.⁵ This article focuses on the SMAS face-lift technique, its basic principles, and how it can be used together with facial implants for a superb aesthetic result.

When considering rhytidectomy, patient selection is of the utmost importance. When a patient presents for initial consultation, the surgeon must gain a clear understanding of the patient's desires and expectations. Similarly, the patient must be educated by the surgeon as to what the possibilities, limitations, and realistic expectations of the procedure are. This mutual understanding can eliminate most complications

Disclosure: The authors have nothing to disclose.

Oral & Maxillofacial Surgery, University Hospitals Case Medical Center, Case Western Reserve University, 2124 Cornell Road, Cleveland, OH 44106, USA

* Corresponding author.

E-mail address: faq@case.edu

involving unsatisfactory cosmetic results. The medical condition of the patient that is required for elective surgery is not discussed; however, there are considerations for rhytidectomy patients that should be mentioned. Cessation of smoking is imperative, because it can significantly compromise blood supply to the flap, which may lead to necrosis. Bleeding disorders or anticoagulating medications place the patient at increased risk for hematoma formation, which also may lead to flap necrosis or infection. Any other factors that may contribute to delayed or poor wound healing, such as steroids, immunosuppressants, uncontrolled diabetes, must be addressed before surgery.⁶

Appropriate photographic documentation is also an important part of the presurgical evaluation and should be completed for any patient undergoing rhytidectomy. This documentation allows for thorough evaluation of the patient's facial features, thereby assisting in preoperative planning. It can also help the surgeon, together with the patient, identify specific areas of concern or interest. To ensure that the patient has undergone all necessary evaluation and preparation, a presurgical visit is recommended.

On the day of the procedure, the skin is marked to delineate both the incision design and the extent of anticipated undermining. The patient should be marked while sitting upright and before the administration of any local anesthetic.⁷ Many face-lift incision designs have been described, most of which consist of some variation involving starting in the temporal hairline, following the preauricular crease, and following the hairline posteriorly. There are some specific considerations when the patient is male, because of sideburn hairlines (Figs. 1 and 2).

Anesthetic technique can range from only local injection of the incision lines to general anesthesia. Often, the area of the incision is injected using 2% lidocaine with 1:100,000 epinephrine. A tumescent solution containing epinephrine is usually used for hydrodissection and hemostasis of the appropriate plane. In appropriate cases, plication of the platysma edges can be performed through a submental incision to treat banding. This procedure complements the face-lift procedure well and should be addressed in the preoperative discussions. If this procedure is planned, the area should be anesthetized as well.

Once the patient is adequately anesthetized, a subcutaneous plane is developed along the incision lines. Care should be taken to keep the incision parallel to the hair follicles to avoid potential damage and alopecia. The skin flap should have adequate subdermal fat intact to provide adequate blood supply, thereby helping to prevent ischemic injury. Three to



Fig. 2 Example of preoperative marking in male patient.

4 mm thick subdermal fat usually accomplishes this objective. The plane of dissection should also not be carried medially past a line halfway between the lateral canthus and the ear.^{7,8}

An important consideration in the temporal area of dissection is the frontal branch of the facial nerve. It can be found just above the superficial temporal fascia. In addition, this layer contains the superficial temporal artery. The surgeon should be sure to keep the dissection superficial to this layer to avoid damage.⁹

When carrying the dissection inferiorly below the ear, great caution must be taken to keep the great auricular nerve intact. This is the most commonly injured nerve in rhytidectomy procedures. It travels over the middle of the sternocleidomastoid muscle 6.5 cm inferior to the bony external auditory canal in the plane just superficial to the sternocleidomastoid.¹⁰ It is imperative that the plane of dissection be kept to the subcutaneous layer in this region, because carrying it any deeper puts the great auricular nerve at risk.

Once the dissection is complete, SMAS plication or imbrication can be used to achieve the desired result. With plication, the SMAS is pulled and then folded back down on to itself using suture. To achieve a good result, 3 key areas need to be addressed, including the jowls, the nasolabial fold, and the cheek area or nasojugal fold (Fig. 3). Imbrication consists of excising a portion of the SMAS and then reapproximating it to



Fig. 1 Example of preoperative marking in female patient.



Fig. 3 Plication using suture to secure the SMAS to itself.

Download English Version:

<https://daneshyari.com/en/article/3122504>

Download Persian Version:

<https://daneshyari.com/article/3122504>

[Daneshyari.com](https://daneshyari.com)