Rhytidectomy, or facelift, is a cosmetic surgery procedure designed to reposition the facial skin in an attempt to rejuvenate the aging face. The procedure has been around for a century but has seen increased attention and innovation in recent years. It is often performed in conjunction with other procedures designed to rejuvenate the aging face. With proper patient selection and technique, rhytidectomy can be a rewarding procedure for patient and physician alike.

The history of rhytidectomy is somewhat obscure due to the culture of the times. The prevailing attitude spurned vanity and looked down upon cosmetic surgery. Therefore, surgeons who developed these techniques were loath to publish them. Also, the surgeons who did these procedures were hesitant to share their techniques with their competitors as they were reportedly earning the lion’s share of their income through them. Thus, the early literature is sparse.

The earliest operations were essentially removing an elliptical area of skin at the hairline. This developed into the “classic” rhytidectomy which was essentially a large rotation-advancement skin flap. Skoog set the stage for new development when he described the subfascial facelift. Then the superficial musculo-aponeurotic system, or SMAS, was described by Mitz and Peyronie in their seminal paper of 1976. This gave rise to the development of the SMAS facelift which has been the gold standard for many years. The 1990’s saw the development of the deep-plane and composite rhytidectomies by Hamra, and these alternatives may be adjuncts or may surpass the SMAS lift as the standard operation to which others are compared.

The SMAS is a fibromuscular layer which connects the platysma and frontalis and acts as a suspension for the overlying facial skin. It lies deep to the subdermal plexus of vessels and superficial to the motor nerves of the facial musculature. It provides a suspensory sheet which distributes forces of facial expression. The idea that suspending this layer would lead to a better long-term suspension of the overlying skin has become common.

Preoperative evaluation is key in performing successful facelift surgery. Psychologic, medical, and anatomical information are all evaluated to select appropriate patients for surgery. Patients must have a good self-image and have reasonable motivations and expectations in order to achieve a satisfied customer postoperatively. Medical conditions such as diabetes and collagen-vascular diseases may make patients unsuitable. Smoking can compromise one’s result and is recommended to be stopped at least 2-4 weeks prior to surgery. Pharmacologic agents such as blood thinning medicines, steroids, and agents which promote hypertension are to be avoided. These may not just be prescription medicines but may include over-the-counter or herbal preparations as well. Once a patient has been selected for surgery it is useful to give them prescription ahead of time and to give them an instruction sheet to aid in peace of mind.

Preoperative photos are standard, and any weaknesses or abnormalities are documented in the chart ahead of time. The technicalities of the operation is detailed elsewhere, and the reader is referred to a number of excellent sources. There are some key issues of which to be aware, though. The incisions must preserve a
temporal tuft of hair or else leave the patient with an “operated-on” appearance. Care must be taken around the lobule or else the patient may end up with a “pixie-ear” deformity. Two techniques of SMAS lift are the imbrication technique, in which the SMAS is undermined, partially excised, and sewn down in its new position, and the plication technique, in which undermining is not undertaken but the SMAS is instead pulled up and folded on itself and sewn down. The latter technique is quicker and safer, but it may leave a palpable fold for a while, and some feel it is not as effective. Use of local anesthesia with IV sedation versus general anesthesia is debated and usually boils down to surgeon and patient preference.

One area that deserves mention in conjunction with rhytidectomy is the neck. It became apparent over the years that one of the causes of facial aging was the sagging neck which may or may not also have platysmal banding. Usually incorporated into rhytidectomy is some procedure aimed toward the neck. Commonly a small incision is made under the chin, and then fat is removed either directly or with liposuction. The platysma is then sewn together in the midline and is often divided transversely. There are a number of variations on how to address the platysma, but usually some type of intervention improves the appearance of the neck.

Post-operative care is involves pressure dressing and wound care. Blood pressure and pain are controlled to avoid hematoma, the most common complication, which, in turn, may lead to skin slough. Use of a drain is debated by surgeons but is commonly used by many.

Complications include hematoma, pixie ear, nerve injury, and skin slough. Hematoma is managed by suture removal and evacuation. Skin slough often will resolve uneventfully and requires patient reassurance and wound care. The most common nerve injured is the greater auricular nerve, but the most feared nerve is the facial nerve and its branches. Nerve palsy may be temporary and return, but if the nerve is unknowingly transected it will be permanent.

Newer techniques of rhytidectomy include the deep-plane and composite techniques of Hamra. These achieve a deeper suspension which some feel lead to a more permanent result. The risk is higher of facial nerve injury, however. Other benefits, though, include improved rejuvenation of the nasolabial fold, ptotic malar fat, and sagging orbicularis oculi muscles.

In conclusion, rhytidectomy is an elective cosmetic procedure which, when performed correctly, is an important component of facial rejuvenation. Recent developments and techniques promise further surgical innovation. The otolaryngologist – head and neck surgeon should be familiar with the preoperative issues, anatomy, technique and complications of this challenging and rewarding procedure.

Bibliography