Extended Superficial Muscular Aponeurotic System Rhytidectomy: A Graded Approach

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- Rhytidectomy • Facelift • SMAS-Facelift
- Aging face • Facial rejuvenation

The acceptance of rhytidectomy has been a relatively recent phenomenon. Until the twentieth century, aesthetic surgery was shrouded in secrecy, and well into the twentieth century prominent physicians often were guarded in sharing their experience, despite rumors of cosmetic surgery taking place in private offices and clinics. After World War II, Fomon came to prominence as one of the founders and leaders of the American Academy of Facial Plastic and Reconstructive Surgery. Fomon willingly taught cosmetic surgery to those who were interested. One of his contributions was his recognition of the limits of subcutaneous rhytidectomy: “The average duration of the beneficial effects, even with the best technical skill, cannot be expected to exceed three to four years”.¹

By the 1960s and 1970s, advances in anesthesia allowed elective surgery to be performed safely. Cosmetic surgery literally came out of the dark ages by embracing the free exchange of ideas between surgeons, critical analysis of short- and long-term results by a peer-reviewed scientific community, and the growing need to accommodate a rapidly growing aging population.

The baby-boom generation brought a new era in plastic and reconstructive surgery. A major advance in the approach to rhytidectomy came in 1974 when Skoog² published his thoughts on subfascial rhytidectomy. In 1976, Mitz and Peyronie³ described this subfascial layer anatomically as the superficial muscular aponeurotic system (SMAS). Skoog and Lemmon⁴ demonstrated that by undermining and moving SMAS, the entire skin and SMAS unit moved together as a “the sliding tectonic plate.”⁵ This approach was the first advocating the effectiveness of imbrication (advancement, shortening, and suturing) as a technique in rhytidectomy.

The search for a natural looking rhytidectomy with longer-lasting results continued into the 1980s. Webster demonstrated that simply plicating (pulling back, folding over, and suturing) the underlying fascia and muscular layer often gave a nice, if not equal, improvement in the jaw and neckline, thereby achieving a natural appearance with few complications.⁶

Emphasis turned to improving the midface, traditionally the most difficult region of the face to rejuvenate surgically. The deep-plane and composite rhytidectomy were the next step in the evolution of facelift. These techniques were pioneered by Hamra⁷ and seemed to achieve improvement in the nasolabial fold region. Other surgeons have concurred that these techniques produce improved results.⁸

Surgical approaches for rhytidectomy continue to evolve. From conservative skin flap elevations to the bi- and triplane rhytidectomy of Baker⁷ to the deep-plane techniques of Kamer⁹ and the subperiosteal dissections of Ramirez,⁸ the literature demonstrates significant differences of opinion in managing the aging face. A balance must be drawn between extended operative times, duration of postoperative healing, level of assumed risk and complications, and durability of results. Over the past 26 years, the senior author has