Discussion

Surgery of the Superficial Musculoaponeurotic System: Principles of Release, Vectors, and Fixation

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Discussion by Sam T. Hamra, M.D.

Being asked to write a commentary on Dr. Mendelson’s study affords me the pleasure to reflect on the past 15 years of a close and continuing friendship with Dr. Mendelson and to recall our many hours discussing face lifts and fast cars, in and out of the operating room. The pursuit of a nasolabial fold solution, like our mutual training program, was a natural bond.

I was fortunate enough to learn the original SMAS technique of Skoog from Dr. Mark Lemmon in 1973, and by 1978, our published series of 577 patients concluded that the SMAS technique, while effectively correcting the lower face and jaw line, had little influence on the nasolabial fold.

My interest in improving the nasolabial fold was hardly unique. Beginning in the mid-1980s, I developed the deep-plane technique by releasing the zygomatic cutaneous ligaments from the malar eminence and dissecting inferomedially to the nasolabial crease, thus keeping the cheek fat (malar fat) attached to the skin. This dissection was in continuity with the sub-SMAS Skoog flap. Unknown to me and during the same period, Bryan Mendelson and Fritz Barton, quite coincidentally my fellow NYU trainees, were working independently toward the same goal, but achieved it by dissecting from the SMAS upward, producing a “SMAS release” concept, much like the procedure that Bosse and Papillion had proposed. After I had the honor in 1990 of demonstrating the deep-plane technique at their respective symposia, Owlsley, Aston, and Baker and Stuzin all adopted the principle of repositioning the malar fat with the SMAS, and thus the decade of “malar fat techniques” began.

My attitude and philosophy up until 1990 were identical to the theories of SMAS release and vectors that Dr. Mendelson has beautifully described in this article, but my fixation was different. Although his description of release is still fully in accord with my own, I respectfully disagree with his positions on both fixation and vectors. My earlier thoughts have been altered for two reasons.

First, as my advances in face lifting went on to inclusion of the orbicularis muscle in the composite flap (composite face lift) and later preservation of the lower eyelid fat (arcus marginalis release), I found the impressive appearance of harmony in the rejuvenated face to be far superior to the results I had achieved earlier, even though I had once been pleased with deep-plane face-lift results. Needless to say, our obligation in plastic surgery has always been to never be pleased with current results and to always try to improve techniques.

The second reason that I respectfully disagree is based on a long-term study of my malar fat repositioning procedures that I analyzed and reported in May of 2000 at the ASAPS annual meeting. Careful photographic study of 20 patients from 10 to 12 years postoperatively after deep-plane face lifts done between 1986 and 1990 showed excellent improvement of the nasolabial fold in the first few years, but after 10 years, the jaw line (SMAS repositioning) improved appearance remained more stable than the improvement in the nasolabial fold (malar fat repositioning).
which consistently showed relapse. Moreover, a lateral sweep\textsuperscript{14} would occasionally occur years later, and the vertical periorbital dimensions were never changed, except that the lower eyelids were deeper after fat removal.

Although my early work was a mirror reflection of the theoretical description that Dr. Mendelson has proposed in his Figures 5 and 7, I am now convinced not only by my own experience but also by the patient photographs in the recent previously published work of Dr. Mendelson\textsuperscript{15} that this anatomic change is short-lived, or never happens. These figures suggest that the soft-tissue circumference or diameter of the orbit becomes narrower or more youthful after surgery. Examining the patient photographs in his recent article that I have converted to a half-and-half photograph (Fig. 1) confirms what I found in my own series, in which the orbicularis muscle is not included in the face-lift flap—that the vertical orbital diameter is not changed. Dr. Mendelson, like others who perform the “extended SMAS” or “high SMAS” procedures, describes that lift vector as vertical as I once did, but the vector that is shown in his Figure 7 is superior-lateral (oblique) without orbicularis inclusion and not really vertical (Fig. 2, \textit{left}), which will not prevent an eventual “face-lifted” appearance (Fig. 2, \textit{center}). I contend that the most effective vector is superior medial, and to achieve this, one must reposition the complete orbicularis oculi muscle in that vector (Fig. 2, \textit{right}). One must remember that in the standing position, the vector of aging of the tissues overlying the malar eminence is inferolateral; thus, rejuvenation, as Dr. Mendelson correctly states, must be the opposite vector.

If, in fact, the vector described in the article is truly vertical, then the skin over the repositioned malar fat would crowd and impact the skin covering the orbicularis muscle. This would either cause “bunching” of the skin or push the orbicularis toward the globe, which would narrow the soft-tissue diameter of the orbit. It does neither. The patient photographs in his 1997 article and, indeed, the published photographs of all extended SMAS, high SMAS face lifts, and deep-plane procedures never show a narrowed orbital dimension. Thus, the normal wide and concave orbit of aging is never transformed to the narrow convex eyelid of youth with these techniques. Based on my experience with these techniques, I would argue that the zygomaticus-orbicularis dissection\textsuperscript{11} with an arcus marginalis release produces the most youthful lower eyelid-cheek complex (Fig. 3).

I have advocated for some time the publication of same-side, half-and-half photographs as the best way to demonstrate true periorbital rejuvenation created only by effective vertical tissue repositioning (Fig. 4). Although I fully understand the hesitancy of plastic surgeons to include orbicularis repositioning and the arcus marginalis release in their rejuvenation procedures, I remain convinced that like any new procedure, including the deep-plane face lift, early and justifiable doubts will give way to acceptance, based not only on better results but also on patient disappointment that often occurs after conventional procedures.

Dr. Mendelson remains one of the clear and logical thinkers in the world of plastic surgery, as his writings and contributions have proven. Because of our warm and close relationship, I

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig_1.png}
\caption{By comparing the same side preoperative and postoperative hemiface, one can demonstrate that there is no difference in the vertical height of the soft-tissue orbital dimension without repositioning the orbicularis muscle. (From Mendelson, B. C. SMAS fixation to the facial skeleton: Rationale and results. \textit{Plast. Reconstr. Surg.} 100: 1834, 1997.)}
\end{figure}
Fig. 2. (Left) The vector in extended SMAS, high SMAS, and deep-plane malar fat procedures is superior-lateral, or oblique and not truly vertical. (Center) The shorter more vertical vector of the platysma (SMAS) repositioning can outlast the longer less vertical vector of the malar fat repositioning, producing a “face-lifted” appearance, or lateral sweep. (Right) In primary rhytidectomy, a superior-medial repositioning vector of the orbicularis oculi creates effective periorbital rejuvenation. In secondary rhytidectomy, the same maneuver corrects the lateral sweep.

Fig. 3. In harmonious facial rejuvenation, all three zones of the face must demonstrate change. The periorbital appearance is narrow and convex compared with the wide concavity of normal aging. (From Hamra, S. Frequent face lift sequelae: Hollow eyes and the lateral sweep. Cause and repair. Plast. Reconstr. Surg. 102: 5, 1998.)

Fig. 4. Harmonious facial rejuvenation in this 54-year-old woman with a negative orbital vector demonstrated by same-side preoperative and postoperative views. The shortened vertical height of the periorbital zone confirms true vertical movement of the midface tissues.
know he would think less of me if I wrote the usual glowing commentary without expressing my honest thoughts. My views are based on a self-critical retrospective of my own experience in face lifting, with the hope that young surgeons will be able to bypass the mistakes of theory and of operative techniques if we discuss our past philosophies no longer valid. Otherwise, what hope is there for better results for our patients?

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REFERENCES