Deep Plane Face Lifting for Midface Rejuvenation

Neil A. Gordon, MD[a,b], Stewart I. Adam III, MD[c,d,*]

KEYWORDS

• Deep plane • Facelift • Rhytidectomy • Aging face • Midface • Aesthetic surgery

KEY POINTS

- The platysma muscle/superficial musculoaponeurotic system/galea is the continuous superficial cervical fascia encompassing most of the facial fat, and this superficial soft tissue envelope is poorly anchored to the face.
- The deep-cervical fascia binds the structural aspects of the face and covers the facial nerve and buccal fat pad.
- Facial aging is mainly due to gravity's long-term effects on the superficial soft tissue envelope, with more subtle effects on the deeper structural compartments.
- The deep-plane is the embryologic cleavage plane between these fascial layers and is the logical place for midfacial dissection.
- The deep-plane allows access to the buccal fat pad for treatment of jowling.
- Soft tissue mobilization is maximized in deep-plane dissections and requires careful hairline planning.
- Flap advancement creates tension only at the fascia level allowing natural, tension-free skin closure, and long-lasting outcomes.
- The deep-plane advancement flap is well vascularized and resistant to complications.

INTRODUCTION

Methods used to rejuvenate the midface are varied and often depend on the perspective created by the surgeon's specialty training. Theories and beliefs about the cause of facial aging will also influence a surgeon's particular preference or prejudice. The literature is filled with controversy surrounding the cause of midfacial aging. Recent literature focuses on fat/volume loss as the principle contributor to midface aging, theoretically validating the use of facial volume enhancement as the main treatment modality.[1]

But facial palpation and intraoperative views of the facial soft tissues after sub–superficial musculoaponeurotic system (SMAS) dissection and mobilization, used as the facial rejuvenation technique, reveal excessive soft tissue redundancy (**Fig. 1**). Such photos, combined with operative experience, prove the long-term effects of gravity's downward pull on the poorly anchored superficial soft tissue envelope as the central factor in facial aging. True fat/volume loss is evident in patients suffering from HIV wasting syndrome (**Fig. 2**) but a sunken appearance is observed and facial palpation does not reveal excessive soft tissue

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[a] Section of Otolaryngology, Head and Neck Surgery, Department of Surgery, Yale University School of Medicine, Yale Physicians Building, 4th Floor, 800 Howard Avenue, New Haven, CT 06510, USA; [b] New England Surgical Center, The Retreat at Split Rock, 539 Danbury Road, Wilton, CT 06897, USA; [c] Department of Surgery, Division of Otolaryngology-Head and Neck Surgery, Miami Valley Hospital, Kettering Medical Center, Good Samaritan North, Dayton Children's Hospital, Dayton, USA; [d] Southwest Ohio ENT Specialists, 1222 S Patterson Boulevard, Dayton, Ohio
* Corresponding author.
E-mail address: siadam@soents.com

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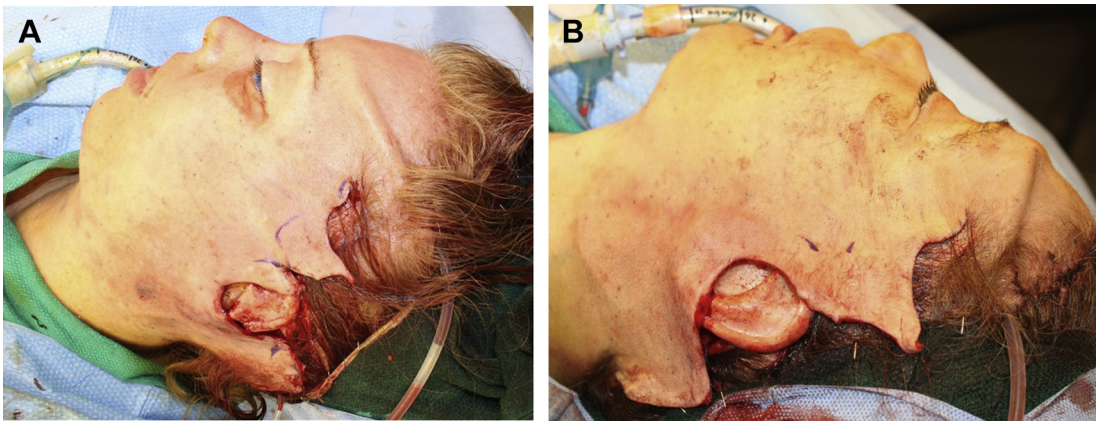

Fig. 1. The excessive soft tissue redundancy created after deep-plane dissection and mobilization of the facial soft tissues, even in the younger patient. This redundancy supports gravity's effects on facial soft tissue as the cause in facial aging. Note the need to use hairline incisions to avoid the extreme superior displacement of the temporal hair tuft in these cases. (*A*) A 43-year-old woman undergoing deep-plane face lift. (*B*) A 59-year-old woman undergoing deep-plane face lift.

redundancy, further debunking the volume theory of facial aging.

Techniques aimed at reversing gravity's effects have evolved as the authors' understanding of facial anatomy has progressed. Mitz and Peyronie[2] defined the superficial cervical facial fascia in 1976, demonstrating the SMAS to be a fibromuscular extension of the platysma muscle. Skoog[3] advanced facelift techniques by defining the significance of the sub-SMAS dissection. Further improvement was made by Hamra[4] in 1990 with his description of the deep-plane rhytidectomy. The deep plane of the face is defined as the embryologic cleavage plane separating the superficial soft tissue envelope from the deeper structural aspects of the face bounded by the deep cervical fascia (**Figs. 3** and **4**). Dissection of the midface in the sub-SMAS/deep plane creates advantages that allow for significantly improved outcomes in face lifting. This approach enables direct lysis of the zygomatic cutaneous ligament, which is the major facial retaining ligament; direct assessment and treatment of issues such as pseudoherniation of buccal fat and its influence on jowling; and mobilization of most of the facial fat.[5] Additionally, the deep-plane dissection confines tension to the platysma/SMAS fascia, allowing for

Fig. 2. HIV patient with wasting syndrome. Notice that true volume loss in the midface creates a hollowed or sunken appearance without soft tissue redundancy.

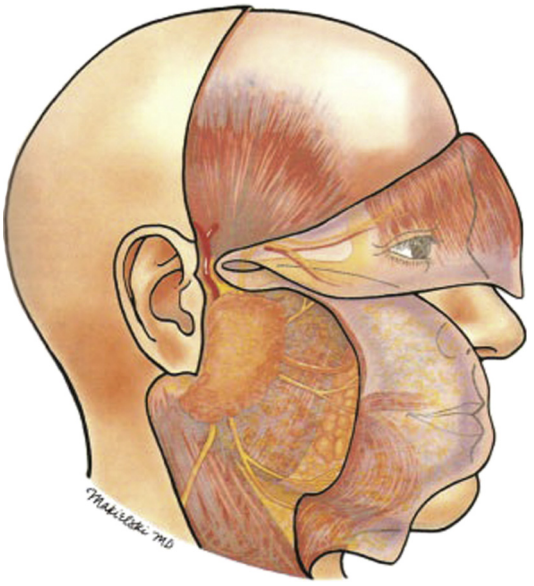

Fig. 3. Deep plane of the face is the embryologic cleavage plane separating the superficial soft tissue envelope from the deeper structural aspects of the face that are bounded by the deep cervical fascia. (*Modified from* Zoumalan RA, Larrabee WF. Anatomic considerations in the aging face. Facial Plast Surg 2011;27(1):16–22; with permission from Thieme Medical Publisher.)