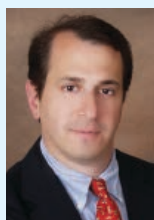


STRUCTURAL AESTHETIC MEDICINE

Structural aesthetic medicine focuses on the structures responsible for the outward appearance.

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The biggest shift in aesthetic medicine and surgery is the advent of a better understanding of the structure that change as we age as well as materials that can better address these changes. For some of our surgical colleagues, this is somewhat old information, but the interplay between the various specialties has resulted in more advanced techniques with more anatomically correct results for each of the core aesthetic specialties.

AN ANATOMIC PERSPECTIVE

Rod J. Rohrich, MD, FACS, and Joel Pessa, MD, have long espoused

an anatomic perspective when treating aesthetic patients. Lisa Donofrio, MD, has also significantly contributed to our understanding of the fat pads. Their delineation of each of the fat pads of the face provide insights into how and why the nasolabial crease and jowls are created.¹

As the fat pads descend and the ligaments stretch, the face drops.² To the extent that surgery and injections restore these structures to prior positioning, the face looks more youthful.

Structural aesthetic medicine focuses on the structures responsible for the outward appearance. Instead of simply spackling a crease or injecting a fold, structural aesthetics relies upon actual knowledge and is the province of the 4 core specialties. Structural aesthetics also

mandates knowledge of the underlying structures to minimize the frequency of significant adverse events.²

For the purposes of this article, the deep fat pads will be divided into the following: medial sub-orbicularis oculi fat (SOOF), lateral SOOF, deep medial fat and buccal fat.¹ There are septae that separate these compartments.

As Dr. Rohrich and others have illustrated, aging causes these fat pads to deflate and descend. Facial rejuvenation, both surgical and non-surgical, should seek to restore these fat pads into more youthful positions. While this is occurring, other dynamics are also at work in the aging face. Researchers propose that while some fat pads are becoming atrophic, others are expanding.³

Unfortunately, they are expanding in the wrong places from an aesthetic perspective. Among the fat compartments that expand in aberrant locations are the lateral cheeks and jowls. Combined with changes in the bones and the adjacent fat pads, the appearance of the aging face emerges. Where prior injections focused on lifting wrinkles, more recent techniques look at the fat pad position in each patient and attempt to restore them to a more anatomic position.

Indeed, for almost a decade, Dr. Rohrich has advocated injections into the medial fat pad as a means of reflatting the medial cheek and decreasing the nasolabial crease, one of the stigmata of the aging face.

Perhaps, the best example of how knowledge of structure transforms patient injections is the following: “The smooth blend between the medial SOOF and the superior edge of

the malar fat pad is lost, leading to a harsh transition between the lid-cheek junction.”¹ This understanding helps injectors better address the root cause of the tear trough and guides placement of needle as well as selection of filler.

BONY STRUCTURES

A second major component of structural cosmetic dermatology and plastic surgery is the recognition that aging in women has profound effects on the bony structures that serve as scaffolding for the face.

According to Shaw et al⁴, the size of the orbit greatly expands as we age.⁴ This expansion is marked by bone loss in some of the regions around the eye. Injections that re-position the overlying skin based on this knowledge seek to return the contour of the face to more youthful proportions.

Once again, knowledge of the structures dictates more anatomically correct outcomes. Injections deep into the pyriform fossa help to restore the apex of the nasolabial crease without actually filling the crease. Injections into the mandibular area can help to compensate for bone

loss in this region and return the lower face to more defined appearance.

NOVEL FILLERS

The advent of newer filling materials is an additional factor, which will be discussed in a future article. Simply put, the ability of newer materials to lift and shape the skin as well as the approval of injections into the malar and submalar regions (especially injections directed at the periosteal plane) have enabled injectors to address structural changes that were not realistic until recently.

IMPROVED AWARENESS

Structural aesthetic medicine is what sets a good injector apart from one that follows a cookbook. For the specialists that perform injections frequently, the ability to use better products in more anatomically correct locations will result in better injections with happier patients.

The collaborative efforts between specialists has resulted in injections that are truly remarkable; it is incumbent on leaders in these fields to educate not only practitioners but also patients and

the media so that optimal outcomes are routinely attained. ■

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Disclosure: Dr. Beer is an owner of Theraplex LLC, and consults, speaks or performs clinical trials for Medicis, a division of Valeant, 3M, Sanofi Aventis, Bioform Medical, Allergan and Stiefel, a GSK company. He is also a shareholder and director of the Cosmetic Bootcamp meeting.

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