MID FACE VOLUMIZING

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DISCLOSURES

• No Industry Disclosures
• Generic names when possible
  • Trade name when necessary to maximize the instructional benefit of the talk.
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  • CompleteSkin MD, NYC

SOFT TISSUE FILLER PROCEDURES PERFORMED IN 2012

INTRODUCTION

- Minimally invasive cosmetic procedures continue to rise
- Surgical cosmetic procedures continue to drop
- Facial aesthetics treatment has evolved to correcting volume loss instead of filling wrinkles

AGING FACE

- Loss of volume leading to flattening of the mid face
- Redistribution of soft tissue and subcutaneous fat
- Accumulation of tissue without support in the lower half of the face

VARIABLES

- What are you trying to achieve?
- Product
- Depth of injection
- Location of injection
- Amount to use
### PRODUCTS

<table>
<thead>
<tr>
<th>Product</th>
<th>Length</th>
<th>FDA Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluma</td>
<td>2 years</td>
<td>Deep subcutaneous and or supraperiosteal injection for cheek augmentation to correct age-related volume deficit in the mid face</td>
</tr>
<tr>
<td>Juvederm Ultra Plus</td>
<td>9-12 months</td>
<td>Mid-to-deep dermis for correction of moderate to severe facial wrinkles and folds (such as nasolabial folds)</td>
</tr>
<tr>
<td>Perlane</td>
<td>6-9 months</td>
<td>Deep dermis to superficial subcutis for the correction of moderate to severe facial folds and wrinkles, such as nasolabial folds</td>
</tr>
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<th>Product</th>
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<tr>
<td>Sculptra</td>
<td>2 years</td>
<td>Correction of shallow to deep nasolabial fold contour deficiencies and other facial wrinkles in which deep dermal grid pattern (cross-hatch) injection technique is appropriate</td>
</tr>
<tr>
<td>Radiesse</td>
<td>1 year or more</td>
<td>Subdermal implantation of correction of moderate to severe facial wrinkles and folds such as nasolabial folds</td>
</tr>
<tr>
<td>Bellafill</td>
<td>12 months to forever</td>
<td>Correction of nasolabial folds and moderate to severe, atrophic, distensible facial acne scars on the cheek in patients</td>
</tr>
<tr>
<td>AdatoSil</td>
<td>Forever</td>
<td>in the eye for severe retinal detachment and is approved for use during eye surgery to prevent or treat detached retina</td>
</tr>
</tbody>
</table>

**Product List**

- Voluma
- Juvederm Ultra Plus
- Perlane
- Sculptra
- Radiesse
- Bellafill
- AdatoSil
- Silikon
- SilSkin
HYALURONIC ACID

• No species or tissue specificity; chemical structure is uniform throughout nature
  • No potential for immunogenicity
• HA gels have unique ability to bind water
• Reversible
  • hyaluronidase = antidote
• May stimulate neocollagenesis via activation of dermal fibroblasts by the mechanical stretching of the dermis

HA–JUVÉDERM VOLUMA

• FDA approved 2013
• Only FDA-approved filler indicated for cheek augmentation to correct age-related volume deficit in the mid-face
• Based on VYCROSS technology which produces a tightly cross-linked gel
• Provides immediate result and lasts up to 2 years
• Juvederm Voluma has lower capacity for water absorption compared to other HA fillers (based on in vitro studies)
POLY-L-LACTIC ACID

• PLLA is a biocompatible, biodegradable, synthetic polymer derived from the α-hydroxy acid family
• Used in patients for many years in as dissolvable sutures, and for tissue regeneration
• Crystalline, shapeless mixture with microparticles averaging 40–63μm in size
• The slow resorption of PLLA is due to the high molecular weight (140,000 daltons) of the polymer and the irregular crystalline shape of the microparticles
• PLLA is eventually broken down into carbon dioxide and water or glucose and eliminated from the body

POLY-L-LACTIC ACID (PLLA)

• Initially FDA approved for HIV-associated lipoatrophy (2004)
• Cosmetic approval 2009 for correction of shallow to deep nasolabial fold contour deficiencies and other facial wrinkles in which deep dermal grid pattern (cross-hatch) injection technique is appropriate
• Immunologically inactive and biodegradable
• Enhances neocollagenesis through an increase in fibroblast activity

POLY-L-LACTIC ACID (PLLA)

• Increased dilution decreases risk of nodule formation
  • 9cc (6cc sterile water and 3 cc Lidocaine)
• Does not work on principle of immediate correction
• Gradual augmentation, optimal results at 12 weeks
  • Wait at least 8-12 weeks between injection sessions
• Lasts for 2 years
DEPTH OF INJECTION

• Optimal performance of a filler substance requires appropriate anatomic placement, consistent with its intended use.

• Fillers intended for the upper dermis will have no efficacy if placed too deeply.

• Those intended for deep dermis/subcutaneous tissue can cause nodules if injected too superficially.

ANATOMIC LOCATION

Superficial Dermis for correction of fine lines and wrinkles.

Subdermal Plane for correcting moderate to severe wrinkles and folds.

Supraperiosteal for volumizing an area with an underlying bone structure such as the prejowl sulcus, infraorbital bone or along the mandible.
PLANNING THE TREATMENT

• Correct midface volume loss first, as it will affect the way other facial areas are treated

ORDER OF TREATMENT

• Zygomatic arch
• Infraorbital
• Medial infraorbital
• Cannine fossa
• Marionette
• Prejowl Sulcus
• Jawline
• Parotid

De Maio M 2014 table 4.12 Injectable Fillers in Aesthetic Medicine

MISADVENTURES
Injection Sites-Voluma

- Hinderer’s Lines
  - Tragus to upper alar lobule
  - Lateral canthus to oral commissure
- 3 Subregions Defined:
  A. Zygomaticomalar region
  B. Anteromedial cheek
  C. Submalar region

INJECTION SITES-VOLUMA

- Start injections laterally with zygomatic arch (supraperiosteally) and move medially
- Small 0.1 mL aliquots

SCULPTRA
TRIVECTOR APPROACH

• Three Injection Area
  • Temporal Fossa
  • Temporal atrophy
  • Zygomatic arch
• Midface
  • Infraspinous
  • Medial infraorbital
• Jawline
  • Marionette lines
  • Prejowl Sulcus
  • Mandibular angle

Modified from Neil Sadick, MD, Elizabeth Hale, MD

COMPLICATIONS

They happen.....even to the best......are you prepared?

COMMON COMPLICATIONS

• Bruising
• Temporary injection-site reactions
• Visible tissue filler material or migration
• Asymmetry
UNCOMMON COMPLICATIONS

- Skin infection
  - History of HSV, provide antiviral
  - Culture, antibiotics, I&D
  - Incidence?

- Delayed onset granulomas
  - Incidence 0.4-2% of all HA fillers

- Vascular Compromise
  - Skin necrosis, scarring or blindness
  - Incidence 0.05% of all fillers

DELAYED ONSET GRANULOMAS IN VOLUMA

- Chart review, Dr. Shannon Humphrey of Carruthers & Humphrey Cosmetic Medicine
- 23 cases, 11,000 ccs injected in 4,800 patients
- Treatments included: IL kenalog, oral steroids, hyaluronidase, antibiotics, no treatment
- All resolved, median time to resolution 6 weeks

VASCULAR COMPROMISE

- Injection of filler into blood vessel
  - Filler is carried down stream until it fully occludes smaller vessels

- Know you anatomy before you inject
- Be prepared
- Know how to treat occlusion
FILLER CRASH KIT

• Contents:
  • Aspirin 325mg
  • Warm Compress (Hand warmers)
  • Hyaluronidase
  • Nitropaste (Nitro-bid 2%)

VASCULAR COMPROMISE: BLINDNESS

• 98 cases of blindness
• Only 2 with full recovery