Expert-Guided Pearls on Technique

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- No relevant conflict of interest
- Off-label applications will be discussed
- The colloquial term "botox" will be used referring to neuromodulators in general
- Patient consents have been obtained
- No screenshot or recording of patient images/ videos

Tips for success

- Beauty is dynamic, not static
- Offer comprehensive, longitudinal treatment plan
- Discuss expectations, risks, alternatives
- Always be prepared for worst case scenario
- When in doubt, say no
- Less is more

Pearls on Neuromodulators for the Millennial / Gen Z patients

Popular procedures

- Brow lift
- Eye shaping botox
- "Baby botox"
- Lip flip



Brow lift

- To elevate the tail of the brows
- **Anatomy**: The orbital portion of the orbicularis oculi protrudes and **depresses** the eyebrows, leading to lowering of the lateral aspect of the eyebrow
- Optimally combined with treatment of crow's feet and glabella lines (brow depressors)





Preventative / baby botox



Eye-aperture widening

- Aka "jelly roll botox"
- Widens eye opening
- Reduces horizontal rhytids
- Anatomy: pretarsal portion of palpebral part of the o.o muscle
- Snap test, review history of blepharoplasty



Optimally combined with undereye filler





Full upper face BTA

- Dosing / placement based on muscle pattern, brow/ lid positioning and patient preference
- Soft vs. frozen
- Touch up in 2-3 weeks









Lip flip

- To improve lip contour, eversion, fullness in younger patients
 - SUBTLE enhancement
- To treat "smoker lines" "bar codes" in older patients
- Anatomy: target superficial orbicularis oris muscle at the vermilion border
- Avoid deeper injection to decrease risk of oral incompetency / elongation of upper lip





Brow shaping, "baby botox", lip flip



Rejuvenation of periorbital area with BTA, undereye filler, temple PLLA

Pearls on dermal fillers for the millennial / Gen Z patients



Filler complication rate

- The most common complications secondary to hyaluronic acid (HA) injections: swelling (43%), infection (41.5%), and pain (24.0%)
- Tissue necrosis secondary to vascular occlusion or compression (8.5%, estimated risk)
- Blindness from embolized filler (0.4%, estimated risk)

ASPS 2020 Rayess HM. JAMA Facial Plastic Surg 2018:20 (3)

Causes of filler related vascular events



Figure 1 Nine position of the eye movements shows the restriction to the nasal part but other was normal presuming the partial ophthalmoplegia of the third central nervous system.

- Downstream embolization of filler material or retrograde movement along a vessel, leading to occlusion and end organ complication
- Blindness secondary to **central retinal artery** occlusion is the most feared event
- CRA embolism is attributed to intravascular injection into the supratrochlear artery, supraorbital, angular, and dorsal nasal arteries followed by subsequent retrograde embolization into the ophthalmic artery system

Ann Clin Lab Res 2018; 6:1 Freytag DL, J Drugs Dermatol, 2019; 18 (9)

Blindness by facial region of injection



Nasal region (56.3% of 48 cases)

- Glabella region (27.1%)
- Forehead region (18.8%)
- Nasolabial (14.6%)
- Temporal
- Infraorbital

Beleznay K. Aesthet Surg J. 2019: 39 (6)

"high risk" facial areas

- Nose: lateral and dorsal nasal arteries
- Alar groove: angular artery
- Glabella: supratrochlear and supraorbital arteries
- Lip: superior and inferior labial arteries
- Vascular occlusion in the cheek, marionette area, and periorbital region have been reported
- Tissue damage can also occur distant to the site of injection via embolization





Considerations in high-risk facial zones

MECHANICS DEPTH, DEPTH, DEPTH LEARN TO SAY NO

Injection mechanics

Needle vs Cannula

- 10/16 (of 48 cases of filler blindness) were needle vs.
 6/16 were cannula with size ranging from 27G to 23G*
- Microcannula smaller < 25G may pierce arterial vessels
- Aspiration in higher risk area

Rheology

- Higher risk with thicker products that require higher extrusion pressure
- False negative aspiration with thicker products

Injection

- Slow injection with low extrusion pressure, small incremental volume
- Dynamic movement of the tip with product delivery
- Cannular perpendicular to major vessels
- Watch the total volume deposited in one area
- Watch for signs of occlusion _____

*Beleznay K. Aesthet Surg J. 2019: 39 (6)

Filler rescue kit

- Hyaluronidase
- ASA
- Sildenafil
- Referral network in case of emergency

Popular procedures



Lips / perioral



- Risk for vascular occlusion leading to local tissue necrosis
- FA: Deep to risorius / ZMM, around 15-20mm lateral to the commissure, with variations
- SLA: between orbicularis oris and oral mucosa or less often within orbicularis





- INJECTION DEPTH: Submucosal, anterior to mucosal-muscular interface
- Caution towards central vermilion
- Watch for signs of occlusion: pain, pallor, blotchy erythema



Niamtu, K. Cosmetic lip surgery, 2018

Lip filler considerations

- Lip filler may be the "gateway" procedure for Gen Z (vs. neurotoxin for millennials)
- The devil is in the detail
- Manage expectation & postprocedure care
- Limit to 1ml per session



Static & dynamic





Minimize bruising





Profile matters





Balance





Proportion





The dynamic duo: lip filler + gummy smile BTA





Be prepared to treat overfilled lips



Undereye filler

- Infraorbital hollow/ "dark undereye circle" is a common aesthetic concern for both men and women
- May be the primary concern of younger patients seeking "natural" but "filtered" enhancement

• Anatomy:

- Hereditary: deep nasojugal groove, suboptimal infraorbital malar complex
- Aging related volume loss/ herniation of infraorbital fat pads, descent of malar fat pads





Deep fat pads of the infraorbital region and midface. DPS, deep pyriform space; ORL, orbital retaining ligament; PZS, prezygomatic space; ZCL, zygomaticocutaneous ligament. Illustrations courtesy of Rafael de la Fuente, MD, surgeon and medical illustrator.

Dermatologic Surgery45(5):700-710, May 2019.

Considerations

- Patient selection is critical
- Preserve natural TT and lid/cheek junction
- Aim for undercorrection
- Pay attention to cheek profile/ anatomy
- Consider correction of V deformity
- Incorporate neurotoxin for optimal result
- < 1ml HA filler (0.5ml per side) per treatment





UNDEREYE FILLER



O drshasahu Andy Mineo, Le Andy Mineo, Lecrae · Coming In Hot

Undereye filler improves light reflection



Safe for skin of color patients





Undercorrection is preferred





Progression









Jawline contouring is the new "lip filler"

Profile / jawline beautification

- Fueled by social media/ celeb transformation
- Chiseled, snatched, contoured jawline/ profile



Injectable tools

- Deoxycholic acid
- Neuromodulator
- Dermal filler / biostimulators
- Treated area: chin, submental, jawline
- Improve projection, proportion, definition

Submental fat reduction











1 ml of HA to chin



Nasomental angle



Jawline filler







Customize product / volume based on gender, desired outcome









Considerations

- Avoid over-masculinization or filler migration by limiting quantity
- Manage patient expectation we don't live in a static/ photoshopped world
- Optimal results with combination therapy



Deoxycholic acid + filler

5/2020 12/2020



Jawline and lip filler



Masseter BTA + chin filler + DCA





WHEN IN DOUBT, SAY NO! **OR UNDERCORRECT**

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