

## HighBeam Research

**Title:** Expanding roles for dermal fillers lead to better outcomes, satisfied patients.(News)

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New and better fillers have greatly improved cosmetic facial enhancement, and they have become an outstanding adjunct to Botox (Allergan), and in many situations are complementary or even superior to surgery.

In our practice, we prefer the many synthetic fillers (Restylane (Q-Med), Captique (Inamed) and Radiesse (BioForm)).

Skin and allergy testing is not required and there is no risk of disease (hepatitis, HIV) transmission. Patients have a higher acceptance for the synthetic over animal-based or human-based products.

Both the patient and physician can immediately enjoy the rejuvenative effect following injection. We recommend patients avoid any blood-thinning agents for approximately two weeks prior to injections and immediate massage of the hyaluronic acid agents is avoided due to their heparin-like effect on the tissues.

Eyelids, glabellar region

Necrosis of tissue and even blindness is a risk of injections in the eyelid and glabellar region.

Intravascular injection must therefore be carefully avoided. Caution must also be exercised that the needle is securely attached to the syringe when using non-luer lock syringes. Eye injuries have occurred from accidental needle expulsion during injections under pressure.

For the deep glabellar and nasolabial folds our preferred filler is Radiesse. Radiesse is calcium hydroxyapatite, and has been used for years for vocal cord and bladder dysfunction. It is critical to obtain off-label consent for cosmetic uses.

Radiesse is an excellent subdermal filler for severe folds, wrinkles that require large volumes and respond well to deep placement, which is Critical with Radiesse. We recommend injecting Radiesse below the dermis to avoid visibly noticeable lumps and irregularities. We have also used Radiesse for post-traumatic cranio-facial volume deficits, and are presently using it for enophthalmos in anophthalmic patients. It can also be placed in the preperiosteal plane for cheek and chin augmentation.

#### Nasolabial folds

For the nasolabial folds, we inject slightly medial to each nasolabial fold as the more lateral tissue laxity and natural muscular action of the facial muscles will tend to lateralize the effect and may worsen the fullness lateral to the fold if not placed medially (Figure 1).

[FIGURE 1 OMITTED]

We mark the nasolabial folds prior to injection of an infraorbital nerve block. We use a 1.25 inch, 27 gauge needle because the hydroxyapatite paste is quite thick. The nerve block for nasolabial folds and lips is performed by injecting the upper and lower gingival sulcus with a 1.25 inch, 27 gauge needle in line with the patient's pupils, which will anesthetize the infraorbital and mental nerves.

We place topical anesthetic gel (e.g., Hurracaine (Beutlich) in the gingival sulcus prior to the injections. We generally use 1 percent to 2 percent lidocaine with epinephrine with 1 ml to 2 ml at each injection site. Generally a single syringe (1.3 ml) of Radiesse is adequate for most nasolabial folds. Some patients desire or require a second syringe at a later time. In the glabellar areas only 0.2 ml to

0.4 ml is require& Patients should be cautioned and placement must be precise in the glabellar region. Tissue necrosis and vision loss have been reported with inadvertent intravascular injections in the periocular areas. Glabellar fold injections seldom require injecting local anesthetic, which can distort the target area and lessen the chance of obtaining the desired result.

Because patients often complain of lumps and irregularities, we discourage Radiesse injections for lip augmentation. Caution must be exercised to avoid injecting Radiesse too superficially. We have found Radiesse gives some improvement for at least two years in most patients. Following injection, patients may massage the areas immediately and for several weeks if required.

Lips, eyelids, brow

In the lips, eyelids and brow we prefer hyaluronic adds.

Restylane is a hyaluronic acid with a very high safety profile. It is easier to inject than Radiesse, and is currently our preferred filler for deep lip enhancement. We have also found good success with it for the nasojugal ("tear trough") deformities (Figures 2a-b). Restylane also has been said to provide a subtle lateral brow lift by injecting into the lateral brow fat pads. Patients require variable amounts of hyaluronic add depending on the desired outcome and severity of the folds. The effects of all fillers are potentiated by prior or concomitant injection of Botox in mimetic areas. We use the provided 30 gauge needle, and find that linear injection with withdrawal of the needle as well as the described "feathering" technique both work well.

[FIGURE 2 OMITTED]

We routinely perform infraorbital and mental nerve blocks as previously described to alleviate pain. We recommend premarking the perioral rhytids prior to the nerve blocks to ensure optimal filling. We have found Restylane to last six

to 12 months and with Botox the longevity is enhanced. We avoid early aggressive massage of perceived irregularities. It can worsen the outcome with braising and swelling. We advise icing the areas following injections to help with comfort and swelling. Patients with a history of herpetic cold sore outbreaks should be given prophylactic acyclovir for a few days.

Captique is technically easier than Restylane for filling less severe rhytids, particularly fine perioral lines, crow's feet, and for defining the vermilion border. We have found Captique to be less lumpy and visible when injected into the aforementioned area. It works well as an adjunct to deeper lip augmentation with Restylane. Captique may then be applied superficially to define the lip margin for patients requiring or requesting aggressive lip augmentation. One should keep in mind that the upper lips should usually be about two-thirds as thick as the lower lips. Additionally, the central portion of the lower lips may project as forward as the upper in beautiful full lips. Keeping this proportion is important, and needs to be pointed out to patients who frequently request very large upper lips. We have noted that Captique does not last as long as Restylane; it lasts more on the order of four to six months in the lips.

With all fillers, injection to highly dynamic areas (the perioral rhytids) will result in shorter-lived results than less dynamic areas such as horizontal forehead rhytids or lower eyelid "tear trough" defects.

Exercise caution

Exercise caution to not over-apply any filler to the marionette lines and corners of the mouth.

These areas may appear lumpy with overcorrection and result in patient dissatisfaction. Rare local inflammatory responses have been seen with the hyaluronic acid fillers. These reactions have generally been reported to respond well to oral corticosteroids, and can also be treated with hyaluronidase to break

down the hyaluronic acid filler. Patients find these safety features reassuring regarding the hyaluronic acid fillers.

Sculptra (Dermik) is a volumizer that has been Food and Drug Administration-approved for HIV lipodystrophy. It requires several injections to stimulate collagen production by controlled inflammatory reaction over many months. As it provides no immediate effect and creates volume with time, it can be combined with other fillers to provide immediate gratification. It must be placed deep and patients must be notified that it is a volumizer, rather than a filler, and the results take several months before becoming apparent.

Disclosures: Dr. Anderson consults for Allergan.

References: Soparkar CN, Patrinely JR, Tschen J. Ophthal Plast Reconstr Surg. 2004;20:317-318. Soparkar CN, Patrinely JR. Ophthal Plast Reconstr Surg. 2005 Mar; 21:151-153.

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