Rejuvenation of the Lips and Lower Face

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Patients commonly seek treatment in cosmetic practices for rejuvenation of the lips and lower face. Over the last 15 years, cosmetic procedures for the lips and lower face have seen improvements through increased technology. As with all procedures, some physicians more commonly perform nonsurgical treatments, while others are more surgically oriented.

The Aging Lip

From the beginning of recorded history, virtually all cultures have admired women with full and defined lips, and this look will never go out of style. As with many minimally invasive techniques, injectable fillers are easy to learn but hard to master. A firm understanding of lip and perioral anatomy is paramount to fully understanding the aging process as well as providing proper treatment options.

Youthful lips are voluminous and curvaceous (Figure 1A). As we age, numerous hard and soft tissue changes affect facial aesthetics. Changes in soft tissue include atrophy of the skin, muscles, fat, mucosa, and minor salivary glands; hard tissue changes include attrition of both the occlusal (contact) and interproximal (between the teeth) surfaces of the teeth. This loss of space allows the jaws to move closer together, thereby decreasing the vertical dimension and increasing the soft tissue drape of the lips. The maxilla, alveolar bone, and pyriform aperture (nasal aperture) also undergo resorptive changes, which can further collapse the youthful drape over the teeth. The sum of all these processes causes loss of vermilion show, thinning of the vermilion, and lengthening of the lip from the bottom of the nose (subnasale) to the lowermost portion of the upper lip (upper stomion)(Figure 1B). All of these hard and soft tissue changes lead to aged lips with vertical rhytides, loss of vermilion show, and deepening and downturning of the oral commissures.

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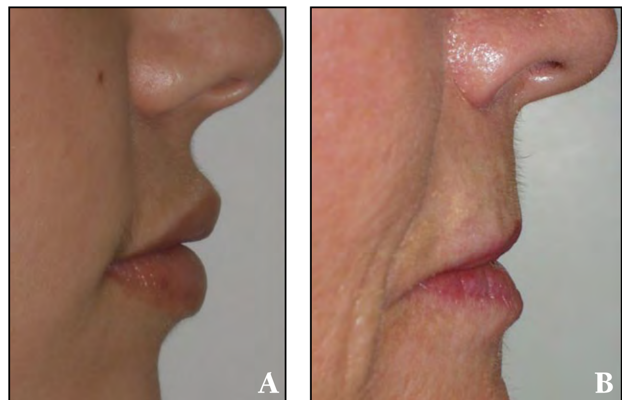

Figure 1. The youthful lip has pout, volume, and curvature (A), while the senescent lip becomes atrophic and elongated from age-related hard and soft tissue changes (B).

Treating younger patients is a slam dunk, as they usually only need "a little air in the tires." This minor volumization is pretty much the mainstay of enhancing the youthful patient. Although this treatment is most frequently performed with needles, I prefer using a 0.9-mm blunt fat injection cannula,[1] which is available both in disposable and nondisposable form and produces an atraumatic injection with virtually no swelling or bruising. The commissure is punctured with an 18-gauge needle, and the cannula is inserted and fed through the center of the lip to the opposite commissure (Figure 2). The filler is injected as the cannula is withdrawn. This technique also can be performed using blunt, flexible-needle cannulas with smaller diameters that are commercially available. In my experience, cannulas work well when filling deep volumes but are less effective for treatment of the Cupid's bow outline. As with any filler technique, postinjection massage is important to homogenize the treated area, smooth out any lumps, and fine-tune symmetry.

Permanent Versus Reversible

Permanent fillers are an excellent treatment option until you or the patient does not like the result. It is human nature to desire lasting results, but many patients are so

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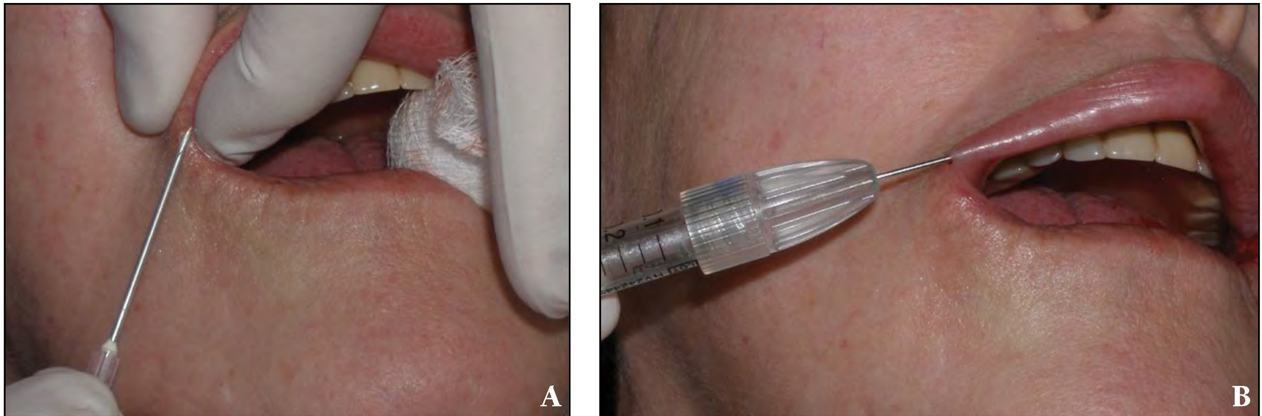

Figure 2. A puncture is made just medial to the oral commissure to accommodate the cannula (A), and the blunt cannula is inserted and fed through the center of the lip (B). The filler is injected as the cannula is withdrawn.

impetuous they jump at the chance for longer-lasting or permanent fillers without contemplating the consequences. When patients complain that their results only last up to a year, I tell them it is too bad hair coloring does not last that long. Physicians rely on insurance policies for just about any risk imaginable. I also have an insurance policy for lip filler: hyaluronic acid! If someone does not like the result, it can be completely dissolved and reversed with hyaluronidase. To me, this reversibility can be priceless. Over the course of my career, I have seen patients who were treated (by me or someone else) with permanent fillers such as fat, silicone, calcium hydroxylapatite, or polymethylmethacrylate and were displeased with the results that could not go away overnight. With hyaluronic acid fillers, I do not have that worry, as hyaluronidase will reverse any unwanted results in a matter of hours.

However, I do inject silicone in the lips and face with some caveats. First, I never inject silicone in patients who have not had lip augmentation already; I always require their first treatment to be with a reversible hyaluronic acid product. Second, I will not inject a patient who exhibits signs of psychological distress. We all pay attention to the emotions of our patients, and it is important to note that silicone (or permanent fillers) and psychological problems do not mix. In my opinion, lips that are treated with silicone feel more natural than with any other filler. When I inject silicone in the lips, I use a 25-gauge needle and a "rice grain" technique, layering small strands of silicone. Although many physicians subscribe to a microdroplet technique, I find that the rice grain technique produces results that are less lumpy and more natural, at least in my hands. I would caution physicians not to inject silicone or any other permanent filler without years of filler experience.

To Hurt or Not to Hurt

In addition to competency in administering fillers, I also credit meticulous pain control to the success of my injectable practice. Injectors who perform painless procedures will "steal" patients from competitors who do not pay attention to patient comfort. (Read that statement again, as it is important.) Ask a friend if he/she has a good dentist, and if he/she says yes, the approval likely will be followed by saying that this particular dentist is "painless." Most people have no idea how to assess the technical or intellectual competence of their dentist; they just know that their experience was good if they did not experience pain. All filler injectors should follow the dental model of paying close attention to pain control. Yes, it takes more time, but it pays off in dividends of happy patients and increased clientele. It always amazes me when I hear practitioners (some of the best-known injectors) say, "My patients don't need local anesthesia." This attitude is not acceptable; it only means they are not offering their patients the best treatment experience possible. I do not want to offend practitioners who do not use local anesthesia when administering fillers, but I believe this practice shortchanges patients. I numb all filler patients, even for the nasolabial folds. I use a 1-cc syringe with a 32-gauge needle to do some small infiltrations of approximately 0.1 mL in any treatment site I inject. I inject deep with the local anesthesia so that I do not obliterate the area to be filled. Before the injection, I often apply topical anesthesia and/or ice. For lip injections, I use mini-infiltrations.[2] Again, using a 1-cc syringe and a 32-gauge

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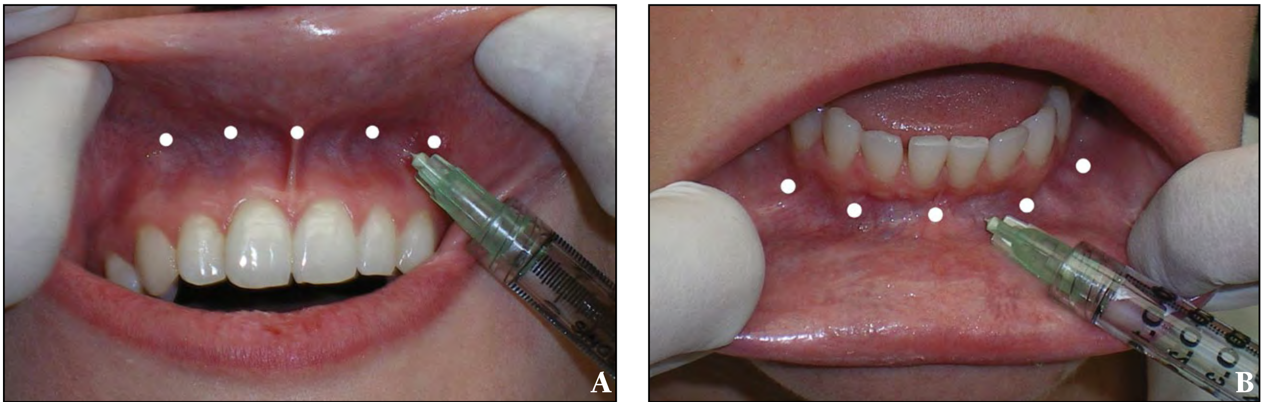

Figure 3. Demonstration of the injection sites (marked with white dots) where 0.2 mL of local anesthesia is administered at each site to anesthetize the upper (A) and lower lips (B).

needle, I inject 0.1 to 0.2 mL of lidocaine 2% with epinephrine either just below the upper sulcus or just above the lower sulcus (Figure 3). I use approximately 4 to 5 injection sites from the right canine to the left canine and wait 5 minutes before injecting the filler. I am sure some physicians might shake their heads and say, "I can't believe he does all of that"; however, patients talk to each other, and sooner or later someone will complain to a friend or acquaintance about the pain during a procedure in another office. One of my patients then might respond that the procedure does not have to hurt and that my staff takes great strides to provide painless treatments. Word spreads quickly, and in that one conversation, I could end up with a new patient.

I am not impressed with fillers that contain local anesthesia because the patient still is subjected to the initial discomfort of the filler needle and injection pressure at each treatment site; once administered, the anesthetic does not cover the entire injection area and takes time to work. To me, this practice is comparable to putting lidocaine on a scalpel blade, which is too late before it gets there! You want to administer local anesthesia before the procedure, not during it. There is absolutely no alternative for total pain control. We all get busy (or lazy), so teach your nurse how to numb patients and watch your filler practice grow.

Conclusion

Anyone can inject filler, but to be masterful, physicians must have an advanced understanding of the facial anatomy and aging process as well as an appreciation of the art and science of injectables, which only comes through experience. When treating the lips, each patient presents a unique challenge, and physicians who understand the nuances of lips not only take great pride in their rejuvenation techniques but also produce predictable outcomes.

References

1. Niamtu J 3rd. Filler injection with micro-cannula instead of needles. *Dermatol Surg*. 2009;35:2005-2008.
2. Niamtu J 3rd. Simple technique for lip and nasolabial fold anesthesia for injectable fillers. *Dermatol Surg*. 2005;31:1330-1332. ■

Quick Poll Question

Do you numb your patients before administering fillers for lip augmentation?

- Yes
- No

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