Optimizing Treatment Outcome With Restylane SubQ: The Role of Patient Selection and Counseling

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Restylane SubQ has been developed to meet the growing demand for minimally invasive cosmetic procedures that correct loss of facial soft tissue volume and provide a nonpermanent solution for facial rejuvenation. This new product in the Restylane product family is based on the same non-animal stabilized hyaluronic acid (NASHA) gel as all other Restylane products, but contains larger gel particles than existing products. This characteristic allows for optimal volume expansion when injected subcutaneously or supraperiostally. Possible indications for Restylane SubQ include cheek augmentation in young patients with flat malar bone as an alternative to cheek implants. Other indications could be midface rejuvenation in patients who either feel it is too early for a face lift, or who are ready for a face lift but are unwilling to undergo surgery. Another possible use could be chin augmentation—pure augmentation as an alternative to chin implantation, or simply rejuvenation of the chin profile to enhance projection in patients with early chin ptosis. A common principle in all these possible indications is that the aesthetic outcome obtained with Restylane SubQ largely depends on appropriate patient selection and counseling. Facial tissue structure is an important consideration when selecting patients for treatment with Restylane SubQ, since treatment success is dependent on adequate soft-tissue cover for the injected product, as well as soft tissue support to prevent mobility.
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In recent years, the greatest rise in demand among patients requesting facial rejuvenation has been for nonsurgical techniques, which can be used either as an adjunct to surgery or for cases in which surgery is not yet required.[1] This possibly reflects the fact that patients desire a cosmetic improvement, but not at the cost of prolonged and painful recovery or a high risk of complications. A further shift in facial rejuvenation procedures has come from changing perceptions of the ideal facial aesthetic. Increasingly, patients want the enhanced, sculptured format of the youthful face, rather than the tightened appearance and stigmas associated with older face-lift procedures.[2] As a minimally invasive treatment that partially reverses the facial volume loss associated with aging, Restylane SubQ is well positioned to satisfy these requirements, and can be regarded as both an alternative and a complement to facial rejuvenation surgery.

Patients' expectations of facial aesthetic surgery are invariably high because the procedure is elective, and they are unlikely to be satisfied with anything less than an objective improvement in their "normal" (pretreatment) appearance. After a cosmetic procedure, patients look more critically at themselves. Accordingly, patient selection and counseling assume greater importance in ensuring patient satisfaction with treatment outcome in cosmetic surgery than in other fields of plastic and reconstructive surgery. This is particularly relevant with respect to Restylane SubQ, since treatment success with this filler material depends on the presence of an adequate level of facial soft tissue support and cover. Therefore, having established the patient's desires and preferences for facial rejuvenation, it is incumbent on the aesthetic surgeon to ensure that the patient's expectations are realistic and attainable, and that the patient is comfortable with the injection procedure itself. Photographing the patient before and after treatment is essential in demonstrating the treatment effect and in planning any touch-up procedures. In addition to the standard frontal and lateral views, the oblique facial view is extremely useful in outlining the profile of the cheek and the "ogee" curve.

Indications for Restylane SubQ in Facial Augmentation

Although clinical experience with Restylane SubQ is currently limited, good aesthetic results have been seen in

Table. Candidates considered most suitable for treatment with Restylane SubQ

Midface rejuvenation	Patients with early signs of facial aging (and good soft tissue support), for whom a face lift would be premature
	Patients who are ready for a face lift but are reluctant to undergo surgery and, importantly, still retain good soft tissue cover
Cheek augmentation	Younger patients with flat zygomatic bones combined with good soft tissue cover
	Patients with mild-to-moderate facial asymmetry who retain good soft tissue cover
Chin augmentation	Patients who require pure chin augmentation (and are reluctant to have chin implants)
	Patients with early chin ptosis who require chin rejuvenation and enhanced chin projection

augmentation of normal facial features (cheeks and chin), in correction of facial asymmetry and restoration of facial balance, in volumetric rejuvenation of the naturally aging face, and in restoration of facial volume and balance in HIV-associated facial lipoatrophy. Restylane SubQ, therefore, represents a promising alternative to current treatment modalities such as autologous fat transfer,[3-5] alloplastic cheek and chin implants,[6,7] and the less invasive face-lift procedures, such as the minimal access cranial suspension (MACS) lift.[8]

Crucial to the aesthetic outcome of volume augmentation with Restylane SubQ is the degree of soft tissue cover at the proposed treatment site. Areas of the face with inadequate soft-tissue cover—very thin dermis and little or no subcutaneous fat—pose a challenge, as there is a high risk that Restylane SubQ treatment here may result in visible skin-surface irregularities and problems of product palpability and mobility (ie, implant movement within the zone of injection). The forehead and temporal area could be problematic for this reason. The chin provides a good site for Restylane SubQ treatment; this may be due to the presence here of dense bands of fibrous tissue (retinacula cutis) attaching the corium to the subcutaneous tissue, which create natural pockets for product placement. Areas lateral to the oral commissure, where the fibrous tissue is less dense, are likely to be less suitable for injection because they provide poor implant support.

In the same way, inter-individual variation in facial soft-tissue structure is an important consideration in selecting the most appropriate patients for volume augmentation with Restylane SubQ. Aesthetic outcome is governed by the level of underlying soft tissue support in the treated area, and the patient with marked soft tissue atrophy of the midface (eg, HIV-associated lipoatrophy) is at an obvious disadvantage compared with the patient who retains reasonably good soft-tissue support. Ironically, the candidate most likely to achieve a favorable aesthetic result with Restylane SubQ is the one who least requires volume augmentation—namely the younger adult who retains adequate soft-tissue support (Table). Accordingly, the most suitable candidates for midface rejuvenation with Restylane SubQ are:

- Patients with early signs of facial aging (and good soft-tissue support), for whom a face lift would be premature;
- Patients who are ready for a face lift but are reluctant to undergo surgery and, importantly, still retain good soft-tissue cover.

The most suitable candidates for cheek augmentation with Restylane SubQ are:

- Younger patients with flat zygomatic bones combined with good soft-tissue cover.
- Patients with mild-to-moderate degrees of facial asymmetry who require volume restoration in the midface but retain good soft-tissue cover.

The most suitable candidates for chin augmentation with Restylane SubQ are:

- Patients who require pure chin augmentation (and are reluctant to have chin implants);
- Patients with early chin ptosis who require chin rejuvenation and enhanced chin projection.

Medical Contraindications to Restylane SubQ Use

Although adverse reactions to Restylane SubQ are infrequent,[9] several preprocedural precautions can reduce the risk of complications and increase the likelihood of a successful aesthetic outcome. As with other filler materials, Restylane SubQ treatment is not recommended for patients with skin disorders, particularly skin infections, in the immediate vicinity of the proposed injection site. Although the risk of allergic reactions with Restylane SubQ is very low (due to its nonanimal origin), any patient with an allergic reaction to another Restylane product or a history of anaphylaxis should avoid treatment with Restylane SubQ.

The potential for bruising at the injection site can be reduced by advising patients to avoid medications that interfere with blood coagulation, such as aspirin, nonsteroidal anti-inflammatory drugs (eg, ibuprofen and diclofenac), high doses of vitamin E, and certain herbal medicines (ginkgo biloba, St John's wort) for at least 2 weeks prior to treatment. Restylane SubQ treatment should probably be avoided in patients with a history of ready bruising or a tendency for bleeding, as well as in patients taking warfarin. The safety of Restylane SubQ in pregnant or breast-feeding women has not been established.

Although not related to the product itself, caution should be taken in using an adrenaline-containing local analgesic during the treatment procedure if the patient has a known history of cardiac arrhythmia.

Local Surgical Contraindications to Restylane SubQ Use

Caution should be exercised in using Restylane SubQ in patients who have undergone prior facial surgery. Patients with previous cheek or chin implantation are not good candidates for Restylane SubQ, as the behavior of the product in the presence of a prosthesis may give a suboptimal aesthetic result. Previous cosmetic procedures such as lower blepharoplasty can disrupt the periorbital fascial attachments of the orbicularis oculi muscle as well as the orbital septum, and migration of the product into the lower eyelid is, therefore, a theoretical possibility. For this reason, care should be taken to avoid injecting Restylane SubQ within 1 cm of the inferior orbital margin in these patients. In addition, facial zones that have been extensively dissected in multiple planes are, in general, inappropriate sites for volumetric augmentation.

In areas of the face with poor soft-tissue cover, augmentation with Restylane SubQ requires extra caution and skill from the treating physician, as treatment may result in problems of product palpability and the appearance of skin-surface irregularities.

In cheek augmentation procedures, the transvestibular (oral) route of administration should be avoided if the patient has recently undergone dental treatment or has poor oral/dental hygiene because this increases the risk of bacterial transmission from the buccal cavity into the soft-tissues.

Patients who are unable to tolerate subcutaneous injections in the mid and lower face in the absence of a general anesthetic should be considered unsuitable candidates for Restylane SubQ treatment.

Patient Counseling About Restylane SubQ

Patients should be informed about potential adverse effects of Restylane SubQ treatment. Risks should be set in context of the well-established safety profile of Restylane in soft-tissue augmentation.[10]

Immobilization of the injected areas of the cheeks and chin may be important in stabilizing the Restylane SubQ implant and reducing the risk of product aggregation and mobility in the first 48 to 72 hours posttreatment. As such, it is advisable to avoid sporting activities for the first 2 or 3 days posttreatment to prevent any immediate mobility. Compressive microfoam tape or strapping can be used to help maintain the static position, and may also help to reduce any swelling at the injection site. External pressure on the face immediately after the injection should be minimized. Patients should be advised to avoid sleeping on their sides and, if possible, to use a horseshoe pillow for the first few nights following treatment.

Conclusions

Treatment success with Restylane SubQ is dependent on an adequate level of underlying soft-tissue support in the treated area. Restylane SubQ treatment can be problematic in patients with marked facial lipoatrophy, as their poor soft-tissue cover increases the likelihood of product palpability and mobility at the injection site. However, treating such patients with extra caution should reduce the chance of potential problems. For volume enhancement of the cheeks and chin, Restylane SubQ offers the dual advantages of a minimally invasive procedure and an immediate and reasonably long-lasting (~9 to 12 months) cosmetic effect. ■

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Restylane SubQ is not approved for any use by the US Food and Drug Administration.

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