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Research Article

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Nonsurgical Rhinoplasty

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Cosmetic dermatology

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Abstract

Objectives: *Years after year's people want more noninvasive procedures to be done specially for their aesthetic problems. New dermal fillers and technical modifications have "revolutionized" the facial aesthetic surgery in recent years. Among them, Hyaluronic Acids are the most reliable ones. It has been mentioned that with these modifications, invasive surgeries have been reduced in all over the world, less trauma, less downtime, less side effect. What are these all about?*

Methods: *In an attempt to clarify these points, we compare the results in 120 patients, 86 female 34 male with using Hyaluronic Acid as a filler for the patients with after surgery problems such as: Saddle deformity, Dorsal unevenness, Prominent humps, Minor deformity, Minor tip rotation and also Patients who cannot do surgery due to medical or personal reasons and many other indications.*

Results: *95% Patients satisfaction. 93% of the patients wanted to do this procedure again after the filler is gone. 29% of patients had bruising for about a week. %65 of the patients mentioned they will never do surgery again.*

Conclusions: *It's only a 15 minutes office base procedure with local anesthesia and minimal risk and no downtime, the patients can see the immediate result, so patients prefer to do this procedure than the surgery.*

Introduction

Minimally invasive procedures are getting more demanding as a result of fewer complications on top of low-cost treatment and social downtime. Non-surgical rhinoplasty draws the attention of advanced aesthetic practitioners to the importance of the outcomes in recent years. Soft tissue augmenters such as Hyaluronic Acid (HA) is revealing its fine-tuning characteristics among other fillers like Autologous fat, Calcium Hydroxyapatite, Collagen, and Silicone. Cohesivity, Elasticity, and Plasticity define the proprieties of HA when injected in the skin, thanks to the new modified molecules of the Hyaluronic Acid. Reversibility is another advantage of using HA.

Medical rhinoplasty is not an alternative to the surgical rhinoplasty but a modifier to the postsurgical defects. It can correct mild asymmetry and deformities in the nose, indications like:

- Saddle deformity
- Alar cartilage collapse
- Dorsal unevenness
- Prominent humps
- Minor deformity
- Minor tip rotation
- Retracted columella
- Hanging columella
- Adjunct to a surgical procedure, surgical revision
- Patients who cannot do surgery due to medical or personal reasons
- Patients who want to consider doing a surgical procedure and wish to see how the new nose might look.

Methods

In an attempt to clarify the above indications, we compare the results in 120 patients, 86 female 34 male with using Hyaluronic Acid as filler. Considering the term "Profiloplasty", our focus are in the middle third of the face where is occupied by the nose that runs from the nasion to the nasal spine or subnasion.

Knowing the exact anatomy of the vessels and their variations, help us avoiding any intra-arterial injection or any build-up pressure in the soft tissue nose surrounding by bones and cartilages. Lateral and dorsal nasal artery, angular vessels and columellar artery are among the main feeding arteries in the nose. Anastomosis of the left and right lateral nasal arteries, calling Arcades in the lower part of the upper lateral cartilages should be considered. Any blind injection in the medial part of supraorbital region could possibly engage the ophthalmic artery and causes blindness.

Injection technics come in importance as we always emphases on deep retrograde injection with a treading movement. Choosing the right candidates is also an important. Contraindications are:

- Acute and chronic disease of the skin near the implant
- Ongoing general diseases
- Active Herpes
- Pregnancy
- Allergy
- Intolerance to the Materials used

In our procedure, orders are summarized as: Photography >> Anesthetic cream >> Cleaning >> Drawing >> Photography >> Cleaning >> Injection (needle 30G, 32G, 33G or cannula 25G, 27G) >> Cleaning >> Massage >> Touch up visit after 10 days >> Same process.

For the injection in the nasal dorsum, we can use both needle and cannula where it is possible and not dangerous. Sometimes using cannula is more painful, but it is safer. The entry point is the nasal tip and we access the dorsum with the blunt cannula 25G, 27G. Leading the cannula to the deep subcutaneous in the supra periosteal level and performing the retrograde technique (pinch the dorsum and avoid lateral spread) prevents any pressure build-up in the vascular plexus of the dermis.

The low-risk candidates could be those with the mild dorsal hump and saddle deformity and the high-risk ones with injections in the nasal tip, alar recess, glabella and those with the micro nose (requires larger volumes). We should be very careful with the high-risk regions, fibrotic tissues, and implants placed in the last surgery.

Complications

A literature search identified 98 cases of vision changes from filler injection. Injection sites most frequently associated with complications in the glabella (38.8%), nasal region (25.5%), nasolabial fold (13.3%), and forehead (12.2%) [1-6].

Intra-arterial injection or arterial compression may cause blindness (embolic effect) in the proximal blood supply and skin necrosis at the nasal tip where is the distal blood supply. **Lumps and nodules** are the results of too much product, too quickly and too superficially injections. **Tyndall effect**, a blue discoloration is the result of too much product placed too superficially. Other complications are **Infection** and **Delayed hypersensitivity**.

Important signs like Escalating pain, Blanching (no adrenaline usage), Livdeo phase (blotchy red or blue mottled skin patches) and Capillary refill should be a concern and needs quick attention. Management are injection of hyaluronidase, hot compress, hyperbaric oxygen, antibiotic and corticosteroids.

Results

- 95% Patients satisfaction
- 93% of the patients wanted to do this procedure again after the filler is gone
- 29% of patients had bruising for about a week
- 65% of the patients mentioned they will never do surgery again

Conclusions

It's only a 15 minutes' office base procedure with local anesthesia and minimal risk and no downtime. The patients can see the immediate result; therefore, patients prefer to do this kind of procedures than the surgery.

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