Creating and Restoring Volume in Patients with Chin Retrusion Using an Innovative Hyaluronic Acid Filler

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BACKGROUND

- The projection and prominence of the chin and jawline are important aesthetic components that influence facial balance and harmony, especially of the profile.[1,2] Inadequate chin projection may be considered unattractive or indicative of a weak personality.[1]
- There are various reasons for deficiency of chin projection, including genetics and aging.
- Treating the chin and jaw region with hyaluronic acid (HA) is a noninvasive alternative to surgical correction, with the advantages of minimal risk and little to no downtime.
- VYC-25L (Allergan plc, Dublin, Ireland) is a novel HA-based filler for restoring and creating volume in the face. VYC-25L was specifically designed for, and has been studied in, the chin and jawline.[1]
- VYC-25L was developed using Vycross® technology (Allergan), formulated using both high- and low-molecular-weight HA, with a unique cross-linking feature.

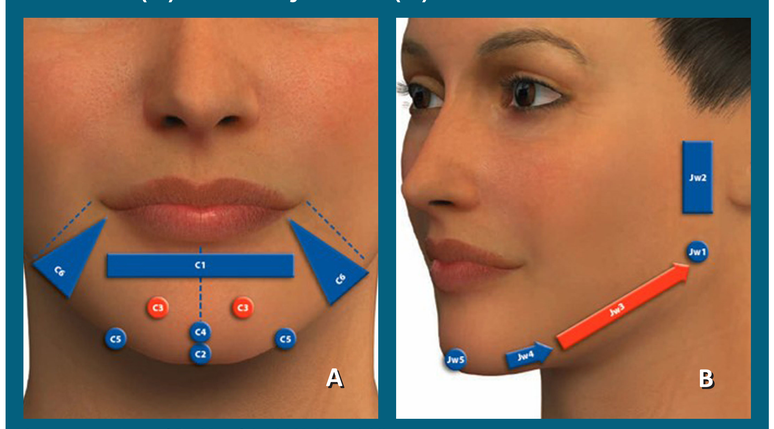
PURPOSE

- The aim of this study was to assess the clinical benefit of VYC-25L as initial treatment to define the chin and jawline.

METHODS

- Fifteen adults with chin retrusion were treated in the chin and jawline (if required), using VYC-25L.
- Exclusion criteria were metabolic disorders, collagen anomalies, autoimmune diseases, scarring, ongoing dental treatment, and previous facial reconstruction due to trauma or resection. Also excluded were women who were pregnant or breastfeeding.

Figure 1. The MD Codes™ approach for treatment of the chin (A) and the jawline (B)



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- The specific injection sites and quantity of VYC-25L were determined from clinical evaluation and were individualized for each patient.
- VYC-25L was injected into the subcutaneous and/or supraperiosteal space, depending on the area being treated. The revolutionary MD Codes™ approach was utilized to guide the injections (**Figure 1**). The chin region included the pogonion, mentum, sublabial crease, and both pre-jowl sulci. The jawline region included the mandibular border as well as the mandibular angle.
- Clinical photographs were obtained at baseline (before treatment) and immediately after treatment. Results were assessed by comparing pre- and post-treatment photographs and by clinical evaluation 1 month after treatment.

RESULTS

- All 15 patients (age range, 20-65 years) reported visible improvement from baseline in chin projection and lower-face definition.
- The average quantity of VYC-25L per patient was 3.2 mL:
  - Jawline range: 1 to 2.0 mL
  - Chin range: 1.0 to 2.5 mL
- The achieved projection is best appreciated from the lateral (profile) view. Representative pre- and post-treatment images appear in **Figures 2-4**.
- No immediate/early serious adverse events occurred. Due to the short duration of the study, late complications (beyond 4 weeks post-treatment) have not been reported.

Figure 2. Lateral views of a 53-year-old woman before (left) and immediately after (right) treatment of the chin and jawline with VYC-25L

Figure 3. Lateral views of a 30-year-old man before (left) and immediately after (right) treatment of the chin and jawline with VYC-25L

Figure 4. Lateral views of a 52-year-old woman before (left) and immediately after (right) treatment of the chin and jawline with VYC-25L

DISCUSSION

- There are many reasons for volume deficiency in the lower face, including aging, genetics, and some medical disorders. Injectable HA-based dermal fillers represent a noninvasive means to restore facial volume. Unlike surgery, these fillers are associated with minimal to no downtime and a low risk of adverse events.
- The projection, straightness, breadth, and length of the chin are important components of facial aesthetics and attractiveness.[2,3] HA-based fillers allow clinicians to precisely shape and project the chin in horizontal, transverse, and vertical dimensions,[4] thus maximizing aesthetic outcomes. For many patients with microgenia, augmentation of the chin with HA-based fillers is a viable alternative to invasive procedures such as alloplastic implantation.[4,5]
- VYC-25L is the first HA soft-tissue filler designed specifically to increase volume in the lower face while maintaining high G' and high cohesivity. It has been studied systematically for effectiveness and safety in a randomized controlled trial of 120 patients.[6]
- The HA in most HA-based fillers is 100% high molecular weight. VYC-25L utilizes Vycross® technology, which combines low-molecular-weight HA and high-molecular-weight HA. This novel formulation facilitates precise sculpting/shaping, improves ease of flow during injection, reduces product swelling within tissue, maximizes the evenness of product distribution, and optimizes the duration of effect.[7,8]

CONCLUSIONS

- Treatment of the chin and jawline with VYC-25L has proven safe, effective, repeatable, predictable, and well tolerated. Moreover, considering the preceding clinical data,[6] a lengthy duration of the effect is expected (up to 24 months).
- Overall, the aesthetic results have been fully concordant with patients' expectations.
- The favorable characteristics of VYC-25L, as well as the successful preliminary findings, make this treatment a viable noninvasive option to increase volume and improve definition in the chin and jawline.

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ACKNOWLEDGMENTS

The authors thank Lynda Seminara, CMPP of ClearView Medical Communications, LLC (Wilmington, DE, USA) for editorial assistance, funded by Allergan, plc at the request of the investigators. Neither honoraria nor payments were made for authorship.

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Presented at the 24th World Congress of Dermatology (WCD); June 10-15, 2019; Milan, Italy