



modern medical

DEFYING GRAVITY

by Marissa Abdo, registered nurse & certified aesthetic nurse specialist

The aesthetics industry is progressing at lightning speed, with new products and technologies that offer clients safe and natural-looking outcomes. However, one area where the industry is lacking is impactful treatments for the neck. Millions of people worldwide have jumped on the facial injectable bandwagon, and their faces look great, but what can be done for clients who have invested in facial treatments and their neck has not kept up? There is finally an answer. Surprisingly, it is a product that has been injected for well over a decade but is now being used in a new way for dermal rejuvenation.

EMERGING SOLUTIONS Calcium Hydroxyapatite

The product used for this neck treatment is calcium hydroxyapatite (CaHA), a biocompatible and biodegradable product that has both volume replacement and collagen biostimulation as its primary mechanism of action. Calcium hydroxyapatite was FDA approved in 2006 for the correction of

facial wrinkles and folds, such as the nasolabial folds, and was one of the first volumizing agents available in the United States market. When used at full strength, calcium hydroxyapatite acts as a volumizing agent that is placed deep in the tissue to mimic bone and lift the overlying structures, such as building cheeks or a jawline. However, when calcium hydroxyapatite is used in a hyperdiluted form, where saline is added to thin the product, studies show that it does not act like a volumizing agent but as a biostimulatory agent by stimulating the endogenous production of collagen to grow. This is the golden ticket.

Hyperdiluted Calcium Hydroxyapatite

Hyperdiluted calcium hydroxyapatite is a suspension of calcium hydroxyapatite microspheres that is easily distributed over larger surface areas of the face and body, where they serve to promote type one collagen and elastin production and induce extracellular matrix remodeling. The result is an improvement in skin elasticity, pliability, and dermal thickness to reduce fine lines and promote local skin tightening. This treatment delivers beautiful results in so many areas of the body where the

aesthetic goal is to improve the appearance of wrinkly, saggy skin, but it shines in the neck area.

Hyperdiluted calcium hydroxyapatite for the aging neck is minimally invasive and packs a punch in results. Using only five injection points to treat the whole neck, most clients leave without any evidence of having treatment at all. Using a blunt tip cannula instead of a needle to inject the product allows the injector to reach more surface area while minimizing common side effects like bruising. Discomfort is minimal due to the anesthetic added to the solution

as well as at each of the five injection sites. Subtle improvements can be seen as early as three to four weeks post-treatment, but results continue to improve as new, healthy collagen and elastin grow. Clients are recommended to do a series of at least two treatment sessions four weeks apart for optimal correction, with a yearly treatment to maintain results and keep the collagen and elastin stimulated and growing.

BLUEPRINT

To prepare the product, mix the 1.5 mL syringe of calcium hydroxyapatite with 4 mL of normal saline and 0.5 mL of 2% lidocaine for a total of 6 mL of solution. Then, use a connector to attach the syringe with the mixture to another 10-mL syringe and push the product back and forth between syringes until it is completely mixed in, at least 20 passes between the two syringes. Then connect a 3-mL syringe and push 1.2 mL of solution into the syringe. Repeat this for a total of five syringes with 1.2 mL of hyperdiluted calcium hydroxyapatite in each. There are five insertion points for the treatment, two on each lateral side of the neck and one located under the chin for the submental region. There is an option to use injectable lidocaine at these five insertion points where the cannula will be introduced.

Using a 22 g x 2-inch cannula, inject four to five retrograde linear threads in a fan pattern to cover as much surface area as possible. Repeat for all five entrance points until all 6 mL of the hyperdiluted calcium hydroxyapatite solution is used. After treatment, perform a massage on the area to ensure all the product is evenly distributed and feels smooth. It is a good idea to cover insertion sites with antibiotic ointment and a small circular bandage. Most clients can see a difference within a few weeks. Repeat treatment is recommended at the four-to-six-week point.

For clients who have had neck surgery, the cannula may meet resistance when advancing and a retrograde linear



fan technique may be used. Use caution with injections with needles as it can be harder to maintain proper depth and has a higher risk of bruising.

SCIENCE SAYS

There are a lot of aesthetics trends that come and go in the industry and treatments touted as the next best thing, but there is often not hard scientific evidence to back it up. Since calcium hydroxyapatite was FDA approved in 2006, there are nearly two decades of research to prove the safety and efficacy of the treatment. One study showed calcium hydroxyapatite was effective in increasing the production of type 1 collagen and elastin seven months after treatment, showing continual, gradual improvement in the neck area. Another clinical study used MRI examination to show soft tissue enlargement two and a half years post-injection, even after the complete absorption of calcium hydroxyapatite microspheres. Additionally, one study demonstrated an increase in skin thickness by 50% three months post-injection which was maintained in 91% of patients during the 18-month evaluation period – hard evidence that the treatment works and results are long-lasting.

Minimally invasive nonsurgical treatments to improve the appearance of an aging neck have somewhat eluded the injectable industry over the years. Sure, improvement can be obtained using other methods, such as neuromodulators, hyaluronic acid fillers, microneedling, and skin tightening modalities, but the results do not compete with a hyperdiluted calcium hydroxyapatite treatment.



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BEFORE



AFTER

trainer with over a decade of experience. As a national trainer for the top aesthetic companies, Allergan and Galderma, she focuses on the anatomy of her client's facial structures to enhance their overall beauty and specializes in facial injectable treatments that include Botox, Dysport, Juvederm, and Restylane dermal fillers, and Sculptra Aesthetic. For more information, visit aestheticiqclinic.com.