A close-up, profile view of a woman's face and neck. She has bright red lipstick and is looking upwards. Her hand is visible, with fingers gently touching her neck. The skin is smooth and well-lit.

“ When evaluating the ageing of the neck itself, a few characteristics must be taken into consideration: laxity of the skin, volume loss, platysmal bands, maintenance of the mandibular contour, pigment alterations, excess of submental fat and widening of the cervicomental angle. ”

NECK REJUVENATION WITH HA FILLERS, TOXIN AND HA HYBRID COMPLEXES

Gabriel Siquier-Dameto demonstrates a comprehensive approach on how to use a range of products and techniques to treat signs of ageing on the neck

ABSTRACT

The youthfulness of the neck has an important effect on our overall appearance. Many factors contribute to the ageing of the neck. Aesthetic treatments are already in place to tackle those issues, but very few studies have been conducted about the combination of different techniques to achieve an optimal result. That is why a comprehensive approach is essential for neck rejuvenation.

The aim of this article is to analyse three different cases in female subjects. Based on this background, different parameters of the neck were classified. Furthermore, the best option has been selected in terms of safety and effectiveness of a combination treatment. The proposed protocol includes hyaluronic acid fillers, botulinum toxin type A and hyaluronic acid stable hybrid cooperative complexes (HA-HCC) of high and low molecular weight.

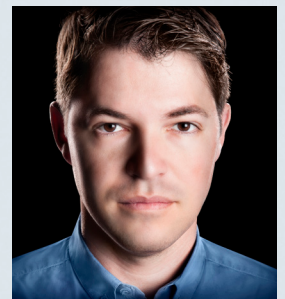
Treatment results show an evident rejuvenation with visibly smoother skin and improved texture. Although more permanent results for treating the neck can be achieved through surgical options, it seems that a combination treatment of HA filler, HA-HCC and botulinum toxin will have a much more positive, less invasive approach.

WHEN IT COMES TO OUR APPEARANCE, IT IS NOT only the contours and youthfulness of the face that play a role; the neck too has a surprisingly important effect on our overall appearance.

When evaluating the ageing of the neck itself, a few characteristics must be taken into consideration: laxity of the skin, volume loss, platysmal bands, maintenance of the mandibular contour, pigment alterations, excess of submental fat and widening of the cervicomental angle. So far, many aesthetic treatments are already in place to tackle each of these issues. However, very few studies have been conducted on the combination of different techniques to achieve an optimal result!

In the past, the use of energy-based devices was mainly indicated for face and body treatments. Now, these devices are becoming more and more common for addressing neck rejuvenation. Nevertheless, the cost of these devices may not be affordable for an extensive group of professionals. Another widespread alternative to achieve neck rejuvenation is the use of surgical options². The main drawbacks of the above-mentioned techniques are the length of the recovery time and the potential occurrence of serious complications.

As many factors contribute to the ageing of the neck, a comprehensive approach is essential for neck rejuvenation. In non-surgical rejuvenation nowadays, the combination treatment with toxins and hyaluronic acid (HA) has become the standard regimen. Besides safety, important factors that contributed to this treatment option include the advantages of an immediate aesthetic result and a short recovery time.



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KEYWORDS

Neck rejuvenation, HA, botulinum toxin, hyaluronic acid, hybrid fillers

▷ The aim of this article is to analyze three different cases in female subjects that attended our clinic during 2019 for neck rejuvenation. Based on this background, different parameters of the neck were classified. Further, the best option has been selected in terms of the safety and effectiveness of a combination treatment. The proposed protocol includes hyaluronic acid fillers, botulinum toxin type A and hyaluronic acid-stable hybrid cooperative complexes (HA-HCC) of high and low molecular weight. A combination of these three products has been used to assess the best option for non-surgical neck rejuvenation. All cases were photographed pre-procedure and 1-month post-procedure.

Identifying the parameters of the neck

For the combined approach, patients have been selected for the presence of the following parameters to assess the best treatment option:

- Sagging skin (with the formation of 'creases'): appear as fine lines that run parallel to each other
- Necklace lines: necklace lines are horizontal lines etched into the skin. They tend to deepen and look more noticeable as we age and skin loses collagen and elasticity
- Maintenance of the mandibular contour
- Platysmal bands: The platysma is a superficial muscle that overlaps the sternocleidomastoid. When the entire platysma is in action, it produces vertical wrinkling of the surface of the skin of the neck. These bands become more noticeable with ageing.

It is also important to make some considerations on the patient presenting dysmetria or spine alterations like kyphosis, lordosis or scoliosis. This condition will affect the position of the neck, and when not adequately explained to the patient, the final result can be different from the desired expectation. For this reason, it is always recommended

to demonstrate what can be expected to the patient before treatment, with the patient standing up, looking to the front and barefoot or wearing flat shoes.

In addition, it is important to note the neck anatomy must be considered with respect to the layers and the target. The different layers to be considered are the skin, preplatysmal fat (subcutaneous tissue), platysma, and subplatysmal fat. The structures to be considered are jugular veins anterior/external (and to a lesser extent internal), submandibular gland and thyroid, carotid artery, trachea and larynx.

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Assessing the treatment options

Usually, it is not enough to rejuvenate a neck using only one type of treatment because more than one of the varying ageing parameters can be present. That is why it can be challenging to know which is the best treatment to choose. The treatment protocol has to be logical and effective, so the treatment of mandibular bone resorption and hyperactivity of the platysma has to be performed first. The second step will be the assessment and treatment of skin laxity; this will also help to improve the tissue in case treatment for the necklace lines is required during a third step.

- Mandibula: The best approach is to analyse, in the first instance, if there is good maintenance of the chin and mandibular line. To achieve the most natural aesthetic results, it is necessary to use a combination of a high G prime HA filler supraperiostally with a lower G prime HA filler subcutaneously. This will guarantee a longer-lasting result and enough lifting capacity. Small volumes of product per injection point are needed to minimize serious adverse events.
- Platysmal bands: The use of botulinum toxin type A is a safe, effective and well-tolerated treatment for platysmal bands, with a high level of treatment satisfaction, rapid onset and long duration of effect. At



the first session, a maximum of 50 IU of botulinum toxin can be injected into the platysmal bands and horizontal lines (if present) using the following protocol: on the platysmal bands, 2 U per point injected every 1-2 cm in a relaxed state with a subdermal bolus technique. On the horizontal wrinkles, 1-2 U per point injected every 1-2 cm using an intradermal bolus technique in the mandibular platysma (Nefertiti Lift)³.

- Sagging skin: The use of HA-HCC can be preferable for skin laxity treatment of the neck in comparison to other treatments. It permits bolus injections in a superficial plane, without leaving contour irregularities or tissue bulking, and without the requirement for a post-injection massage. It is best to inject the product according to the BAP Neck Technique with 2.0 mL of HA-HCC with a month in between the two treatments⁴.
- Necklace lines: Injecting a low G prime HA filler is recommended to treat necklace lines. To avoid bulking and contour irregularities, the best approach is to avoid putting the HA filler directly in the line itself. Instead, try to create a stretching of the area with the fanning technique creating support vertically under the necklace line. A safe approach is to make an insertion point, 1 cm lateral to the anterior border of the sternocleidomastoid muscle. Then make a few passes with a low quantity of HA filler (0.1/0.05 mL per thread), and a maximum of 1mL per session. To avoid overcorrection, a touch up after one month can be performed, in this way, it will also help to monitor any swelling or complication.

Cases

Case 1: Female, 52 years old. During the admission, it was determined there were mandibular retrognathia and a loss of mandibular contour. For this reason, chin augmentation and jawline enhancement with fillers >

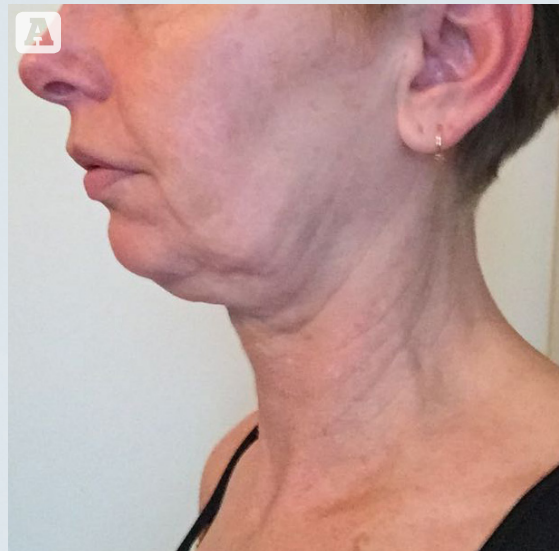
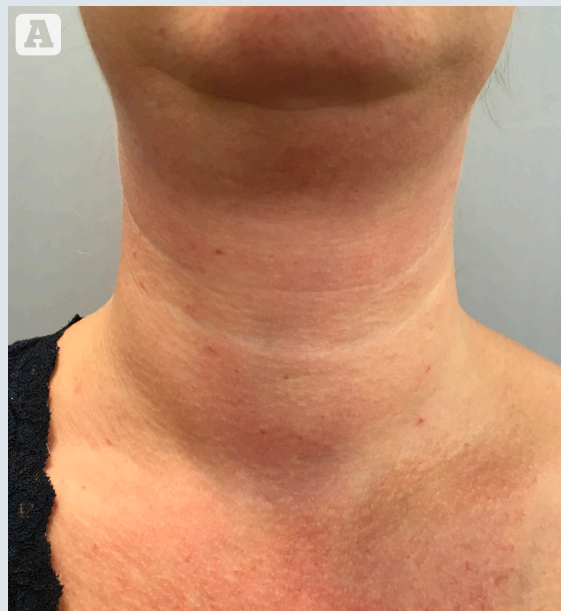


Figure 1 (A) Female, 52 years old. During the admission, it was determined there were mandibular retrognathia and a loss of mandibular contour. In this specific case, 6 mL HA filler was used in total, with a double layer technique. For the chin and jawline: 2 mL supraperiostally and 2 mL subcutaneously. Also, a cheekbone augmentation was performed to give more balance to the final outcome: 1 mL supraperiostally and 1mL subcutaneously. (B) Exhibits two important effects that drastically improve the appearance of the neck. First, the improvement to the balance between the thirds of the face; second, the enhancement to the jawline support.



Figure 2 (A) Female, 55 years old. Platysmal bands and severe skin laxity were present. (B) In contraction) The treatment performed was a total of 35 U botulinum toxin. Then two 2.0 mL doses of HA-HCC were injected at day 15 and day 45, respectively. (C) Visibly smoother skin, improved texture, and barely any lines left visible.

Figure 3 (A) Female, 37 years old, with the presence of necklace lines. On the first session, 1 mL HA filler was used. One month later, a touch up was performed with 1 mL more of this product and with the same technique. (B) A clear improvement of the necklace lines without any contour irregularities or tissue bulking can be observed.



▷ was performed. In this specific case, 6 mL HA filler was used in total, with a double layer technique⁹. For the chin and jawline: 2 mL supraperiostally and 2 mL subcutaneously. Also, a cheekbone augmentation was performed to give more balance to the final outcome: 1 mL supraperiostally and 1 mL subcutaneously.

Figure 1 exhibits two important effects that drastically improve the appearance of the neck. First, the improvement to the balance between the thirds of the face; second, the enhancement to the jawline support.

Case 2: Female, 55 years old. It was noted on evaluation, platysmal bands and severe skin laxity were present. The treatment performed required a 35U botulinum toxin. Then two 2.0 mL doses of HA-HCC were injected at day 15 and day 45, respectively. Results (Figure 2) show a visibly smoother skin, improved texture, and barely any lines left visible.

Case 3: Female, 37 years old, with the presence of necklace lines. The treatment was performed with HA fillers as described in the necklace line technique above. On the first session, 1 mL HA filler was used. One month later, a touch up was performed with 1 mL more of this product and with the same technique. On the photographic evidence (Figure 3), a clear improvement of the necklace lines without any contour irregularities or tissue bulking can be observed.

Conclusion

Although more permanent results for treating the neck can be achieved through surgical options, it seems that a

combination treatment of HA filler, HA-HCC and botulinum toxin will have a much more positive, less invasive approach. For the patient, this means reduced or

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no downtime and immediate but progressive ameliorating results. Combination treatments are a quick and generally safe option, the results will not be permanent, and the effects will last for around 12 months. It is wise to advise the patient to have a top-up session every six to eight months in order to achieve continuous results. It is also important to make patients aware that a younger-looking neck will help to provide a more harmonious rejuvenation. Also, it is important that

every aspect of the treatment should be discussed during the intake, to ensure the patient is suitable. Possible complications that could occur should also be discussed.

► **Declaration of interest** None

► **Figures 1-3** © Dr Siquier

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Key points

- 1 When evaluating the ageing of the neck itself, a few characteristics must be taken into consideration
- 2 It is important to note the neck anatomy must be considered with respect to the layers and the target
- 3 Usually, it is not adequate to rejuvenate the neck using only one type of treatment because more than one of the varying ageing parameters can be present
- 4 A combination treatment of HA filler, HA-HCC and botulinum toxin has satisfactory results

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