Dr Annalisa Beatini discusses the results of a small study investigating the safety and efficacy of a hyaluronic acid-based filler for the rejuvenation of the neck

The aesthetic medicine industry is facing a growing demand for treatments that involve no downtime, are absolutely safe, and ensure an appreciable and lasting aesthetic outcome.

While specialists can now meet the needs of patients when it comes to facial treatments, achieving the same results for a region as challenging as the neck still poses difficulties. Indeed, the sight of a face with proper wrinkle correction, beautifully defined cheekbones and lips, and firm, well hydrated skin loses its aesthetic effect when paired with a neck that clearly reveals the patient’s true age.

The imperfections that specialists most often deal with in this area are:
- Varying degrees of sagging skin, with the formation of ‘creases’, particularly in the subhyoid region down to the jugular notch
- Neckline lines; wrinkles that run horizontally across the neck
- Platysmal bands; bands of sagging skin between the chin and neck
- Double chin.

To understand how different and challenging it is to treat the neck compared with the face, it is necessary to consider the complex anatomy of this region.

Anatomy of the neck
The neck is the anatomical region of the body, defined as the area posteriorly between the base of the skull and the seventh cervical vertebra, while anteriorly it is located from the mandibular angle to the jugular notch.

It is divided into two sections—the suprathyroid area and the subhyoid area—according to the position of the hyoid bone. It is also separated by the cervical fascia.

The skin is extremely thin and has virtually no sebaceous glands. Beneath lies the superficial cervical fascia, which is an often indistinct fascial layer comprising loose connective tissue, which sometimes contains moderate amounts of adipose tissue. It adheres closely to the anterior surface of the platysma, as well as to the subcutaneous dermis. At times it may form cutaneous ligaments.

The deep cervical fascia covers the sternocleidomastoid muscle and forms a sheath for the blood vessels and nerves of the neck, and for the thyroid gland, which is wrapped by its vascular plexus, located above the pharynx and the initial section of the trachea.

Treatment options
Excluding the surgical option, which is refused by the majority of patients, there are very few effective treatments for these imperfections.

These include monopolar radiofrequency (RF), which promotes the compaction of collagen fibres (tightening effect), and botulinum toxin, indicated only for the treatment of platysmal bands.

Considering the excellent results obtained based on the HYDROLIFT® ACTION concept for the face, we decided to adapt the application techniques to the neck, creating a tailored treatment for the imperfections that are often seen.

HYDROLIFT® ACTION is the result of a patented production technology combining integrated hybrid complexes of cross-linked hyaluronic acid (HA) with different molecular weights, ensuring stable, rheological characteristics, ideal viscosity, and high concentrations of natural hyaluronic acid.
This innovative combination allows us to obtain hydration and biorestructuration (thanks to the content of natural HA), as well as a lifting and dermal remodelling effect (thanks to cross-linked HA).

**Study objectives**
- Correction of necklace lines
- Support of the submental area
- Reduction of platysmal bands
- Biorevitalisation

**Materials and methods**
- Aliaxin® SR, monophasic HA with three different molecular weights (500 kDa, 1000 kDa, 2000 kDa) containing 22.5 mg/mL of crosslinked NAHA + 2.5 mg/mL of natural NAHA
- 25G/40 mm cannulae
- 30G/13 mm needle
- Topical anaesthetic cream
- Vial of lidocaine with adrenaline 1:100 000.

Ten patients were selected with diverse conditions based on one or a combination of age (average 60.4 years), skin type, poor subcutaneous condition (at varied levels), and were treated with one 1ml syringe of Aliaxin® SR.

Treatment comprised a single session lasting approximately 1 hour, considering the time required for the topical anaesthesia. The patients were treated with HA only—even in cases where there would have been an indication to use botulinum toxin for the platysmal bands—in order to highlight the positive effects that can be achieved using Aliaxin® SR alone.

Photographic assessment was carried out before treatment, immediately after treatment, and 4 months after treatment.

The only side-effects, mild bruising and redness at the needle entry point, were reported in only four cases and disappeared after a few days. These flaws were easily covered by applying concealer and foundation.

A 20G/13 mm needle was used for the necklace lines and sagging skin after application of topical anaesthesia cream to be kept in occlusion for 20 minutes. A 25G/40 mm cannula was used to treat platysmal bands and submental ptosis, to create a support foundation. At the entry point of the cannula an anaesthesia by infiltration of lidocaine + adrenaline 1:100 000 was used.

Patients of advanced age and with more severe problems also showed excellent results, as in the case Patient C, where the remarkable reduction of the platysmal bands and necklace lines was matched by an obvious biorevitalising effect.

**Conclusions**
Aliaxin® SR has proven to be a product with excellent results for the treatment of neck imperfections, especially when used with simple technical solutions, where a combination of cannula and needle allows us to solve all the problems typical of this challenging area, to the great satisfaction of patients.

Satisfaction is even more strongly felt, particularly during this period of economic crisis, as the product has an outstanding performance: all the cases presented were treated with a single syringe of Aliaxin® SR.

For further information email info@ibsaderma.com or visit www.ibsaderma.com.

IBSA will be exhibiting at EADV Istanbul 2013, booth number 99, Level B5.