Perioral lines, loss of volume to the lips, nasolabial folds and marionette lines are all common lower facial concerns that patients present with when seeking aesthetic treatment. In addition, a sagging jawline is a key indicator of facial ageing and often has a significant impact on a patient’s appearance. The combined effects of gravity, progressive bone resorption, decreased tissue elasticity, and redistribution of subcutaneous fullness all contribute to the manifestations of facial ageing; however, there are a number of non-surgical options available to help lift and contour the lower face.

Consultation

“Every patient benefits from a full face consultation where we look at the structure, the soft tissues and the proportions of their face,” says aesthetic practitioner Dr Kate Goldie. “It’s interesting for patients to learn how each part of the face relates to the bit beside it, and never is this more true than for the lower face, which shows the effects of everything that happens above it,” she explains. In her consultations, Dr Goldie will talk through each part of the patient’s face and point out the cause and effect of each aesthetic concern. Doing so, she notes, allows patients to understand that lower face ageing is generally a result of ageing of the mid-face and helps patients to recognise that only addressing one concern is not necessarily going to have an overall positive effect. She adds that performing a full face clinical analysis helps the practitioner to understand where they can get an uptake of extra skin and still keep results looking natural. “We use specific measurements tailored to each patient to know where to treat to ensure that the patient looks natural, but also better,” she explains. Dr Goldie notes that she’s started to treat the jawline in relatively younger patients, in particular those in their early 40s. “Instead of leaving treatment until patients come in specifically asking for jawline treatment, we’re looking at jawlines as part of the overall beautification process. Some patients may not have noticed that their lower face is starting to sag – they mainly see lines around the mouth – but if you point it out to them then suddenly they notice it,” she explains. Cosmetic surgeon and aesthetic practitioner Miss Jonquille Chantrey explains that the lower face is a very common area of concern amongst patients. “In particular, patients are concerned with loss of continuation of the jawline, jowl formation, development of submental fat and generally feeling as though their lower face may be getting more gaunt or sagging,” she says. Similarly to Dr Goldie, Miss Chantrey will offer the patient a full facial assessment in which she will discuss how facial fat pads change over time and how ageing of the mid-face may be influencing patients’ lower facial concerns. “Once we’ve talked about the fat composition and volumetric changes, the bone changes that have occurred in the mandible over a period of time and the muscle influencers, we talk about the skin,” she says. Taking note of the skin’s integrity, its elasticity, and whether there’s any ptosis is essential in order to understand how to safely and successfully approach treatment, Miss Chantrey explains, adding that it is also vital that practitioners discuss patients’ skin health habits – in particular whether they smoke or have smoked and how much time they spend in the sun. Aesthetic nurse prescriber Jacqueline Naeini adds that other lifestyle factors should be taken into consideration too – including the patient’s diet, general health and stress levels. “As much as they may not want to change these habits, I will always provide advice if I think it may help,” she explains.

Dermal fillers

Administering dermal filler treatment can offer significant improvement to the contour of the jawline. While hyaluronic acid (HA) can be used successfully, Dr Goldie’s treatment of choice is RADIESSE (+), a dermal filler composed of small calcium hydroxylapatite (CaHA) microspheres that is suspended in a soft gel matrix. Once injected, it aims to provide immediate volume and...
correction, as well as stimulate the skin to produce its own natural collagen. 2 “Patients get dynamic results as it can really sharpen the jawline,” says Dr Goldie, adding, “As it contains CaHA, resorption of the gel occurs over three to six months so you will get increased dermal depth, more collagen and more/better quality elastin.” Regardless of the type of filler used, Dr Goldie recommends the use of a cannula when treating the jawline to avoid the risk of injecting an artery. “The facial artery in that region is protected by the superficial muscular aponeurotic system (SMAS), 3 so it’s not easy to accidently go underneath that fascia with a cannula. However, I can go underneath that fascia with a long needle without actually knowing it,” she explains, noting, “By using a cannula I can stay in the plain where there are no major arteries and I would feel it if I moved out of this area.”

According to Dr Goldie, successful results are achieved by injecting subdermally with lots of little passes. She adds, “We examine the jawline in three dimensions, aiming to straighten it — particularly with the formation of jowls — sharpen it and then contour it.” In Dr Goldie’s experience, treatment results usually last for a year, however, in some cases it can last up to 18 months. “I tell my patients a year but we quite often get longer,” she says.

**Botulinum toxin**

Dental surgeon and aesthetic practitioner Dr Souphiyeh Samizadeh also offers injectable treatment to contour the jawline. She says it is important to take note of the patient’s cultural differences, emphasising that not everyone desires the same jawline aesthetic. In her experience, she has found that, “Although most women desire a straight or feminine jawline, eastern patients desire a soft jaw angle, whereas western patients desire a more well-defined jaw angle.” A square face shape, she says, is an indicator of a masculine facial feature, which might prompt patients to seek aesthetic treatment. She explains that injecting botulinum toxin into the masseter muscles to induce disuse atrophy (muscle weakening) is a non-surgical approach of de-bulking masseter muscles and reducing lower face width, which, she says, is very common in Asian countries. 4 Dr Samizadeh notes that numerous studies have highlighted the benefits of this non-invasive approach since consultant neurologist Dr Peter Moore and consultant and oral maxillofacial surgeon Mr Geoffrey Wood introduced the botulinum toxin injection of the hypertrophic masseter to treat functional problems in 1994. 5 For example, she says, Kim et al treated 1,021 patients with botulinum toxin for aesthetic purposes to reduce the volume of masseter muscle in 2005. They concluded that it is a simple technique, with few side effects and reduced recovery time, and can also replace surgical masseter resection. 6 Another benefit of injecting the masseter muscles with botulinum toxin is that it can treat a bruxism. Dr Samizadeh says, “Although scientific evidence is not abundant, a number of studies and literature reviews have indicated reduced frequency of bruxism events, decreased bruxism-induced pain levels and high anecdotal patient satisfaction.” 7 8 9

**Threads**

While there are a number of different types of threads available to contour the jawline, Dr Jacques Otto uses polydioxanone (PDO) threads. “The threads aid the soft tissue, as well as the skin and are good for redistribution of subcutaneous fat and skin laxity,” he says. PDO is a biodegradable synthetic polymer, traditionally used as sutures in surgery. 10 Dr Otto explains that as well as lifting and tightening the jawline, threads aim to stimulate new collagen and elastin production, producing an overall rejuvenated effect. He notes that it is important to take a thorough history before treating the patient to ensure that they are a suitable candidate for treatment. “If someone has very lax skin then they may need surgical treatment,” says Dr Otto, explaining, “In some patients where the skin is really wrinkled, the threads don’t always work well as the skin puckers when you tighten it – those patients are better off having surgery.”

Dr Otto explains that he uses an 18 gauge needle to create an entry point in the skin, before inserting the threads with a blunt cannula. He does not recommend using a needle for thread insertion due to the risk of damaging nerves or blood vessels. Combining thread treatment with botulinum toxin can also be beneficial to the lower face, says Dr Otto. “I inject botulinum toxin two weeks before a thread lift to relax the platysma muscle and get a better result,” he says.

Side effects of thread lift treatment can include, asymmetry and threads being visible under the skin, however thorough training should of course lower this risk, as well as bruising and swelling. Dr Otto notes that attempting to minimise swelling too soon may affect collagen formation so advises patients not to take medication that aims to do this. Prior to treatment, Dr Otto says he informs patients that a thread lift treatment shouldn’t necessarily be a one-off treatment. “If you have good results you need to maintain them,” he says, adding, “There is less risk involved than surgery and if you start early enough then patients can avoid having surgery at all.”

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Ultrasound and radiofrequency

For patients who may be needle phobic or unsure about undergoing injectable treatment, Miss Chantrey offers ULTRACel treatment. "The ULTRACel device is a great starting point for those patients who are presenting with a lower face concern and don’t want any form of filler or threadlift," she says. Similarly to other ultrasound devices, ULTRACel uses high intensity focused ultrasound (HIFU) technology to reach a depth of 3.4-5.5mm to target the SMAS, fascia, fibrous tissue of the fat layer, dermal layer and the dermis. ULTRACel also incorporates grid radiofrequency and radiofrequency with microneedling that aims to promote the production and remodelling of collagen. Miss Chantrey explains, "It essentially uses the principles of microneedling, but adds radiofrequency that goes through the needles and is delivered to the level of the dermis that we need it to in order to stimulate fibroblasts and the production of collagen."

Miss Chantrey says that most patients are satisfied with results after one HIFU treatment, but some may need to undergo two procedures. "We try to get the outcome that they’re looking for in one session and then review in a 12-week period to see how they’re improving," she says. For the radiofrequency/microneedling part of the treatment, she has found that patients generally require three treatments, spaced six weeks apart. Safety is of course paramount when using any technological device and Miss Chantrey highlights the importance of thorough training and understanding of facial anatomy before offering treatment. She says, "When it comes to the microneedling with radiofrequency it is a very powerful device that can cause burns and pigmentation changes, so it needs to be used in the hands of people who really know what they’re doing with it."

Dr Goldie also uses an ultrasound device to contour the jawline, this time Ultherapy. The FDA-approved device uses ultrasound imaging, to allow the practitioner to see down to 8mm below the skin on a screen. The Ultherapy transducers offer three different treatment depths: 4.55mm to the SMAS/platysma, 3mm to the deep dermis and 1.5mm to the superficial dermis. Dr Goldie says, "Over time, we have found that Ultherapy is particularly effective at prevention and contraction." She notes that there is no real downtime to Ultherapy – patients can bruise and there may be a little bit of redness or swelling, but nothing significant. To avoid any potential complications she says it’s important that practitioners understand the depth to which they’re penetrating, the anatomy of the area being treated and, of course, how the technology works. In addition, Dr Goldie says she often uses Ultherapy in combination with dermal filler treatment. "They work really well together," she says, adding, "I use Ultherapy first and then dermal filler treatment two weeks after. I’ve just worked on a consensus paper with [clinical researchers] Dr Alastair and Dr Jean Carruthers and it was agreed that they shouldn’t be done at the same time, it’s better to leave a two-week interval."

Skincare

For Naeni, as well as the other practitioners, taking care of patients’ skin is an imperative part of any successful treatment. "Good skin health is important to help with many antiaging concerns and also acts as a good preventative measure," says Naeni. Ensuring patients are using a sunscreen to protect from UVA and UVB damage is Naeni’s first priority, before she goes on to recommend the use of vitamin A. She says, "Vitamin A also has antioxidants, and stimulates and increases the production of collagen, elastic fibres and glycosaminoglycans." In addition, she notes that the use of alpha hydroxy acids is also beneficial for antiaging as they work to decrease the stratum corneum’s thickness and increase cell turnover. This can also help soften the appearance of pore size, lines and wrinkles, and help to even the distribution of pigmentation, she adds. Naeni advises that vitamin A can cause some irritation to the skin so use should be built up slowly to ensure patients’ toleration. "The patient can also experience slight redness, as well as flaking and dryness of the skin," she says, explaining that this is caused by the retinol increasing cell turnover. Naeni recommends using a good humectant to help reduce redness and keep the skin hydrated. The practitioners interviewed agree that ensuring patients are given reliable aftercare advice, relating to the treatment they’ve undergone and their ongoing skin health, is key to enhanced results and patient retention. Naeni adds, "Giving the patient a good, effective and simple regime is important so that they comply more with their home skincare routine, therefore enhancing results."

Conclusion

Lower face treatments will continue to be ever popular with aesthetic patients. While improving the appearance of lines and wrinkles is of course necessary, it is apparent that contouring the jawline can have a significant impact on a patient’s whole facial aesthetic. Having awareness of the wide range of treatments that are available, as well as how to utilise the best techniques and administer procedures safely, can have a hugely positive influence on your clinical practice.

REFERENCES