

Wrinkle reduction treatments

Dr Ron M. Shelton discusses his use of the Pellevé™ wrinkle reduction system to improve the aged appearance of his patients and reduce downtime post-treatment



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IN OUR SOCIETY, THERE IS A continued interest in the preservation of one's youthful appearance, but there has been a shift by many who now seek to refreshen, rather than change their face. Many object to having their face pulled in unnatural directions and others are not able to undergo surgical facelifts because of medical conditions or medication that they must take, such as blood thinners. Quite a few patients have told me that at their age, they don't want to look 20 or 30 years younger, but just want to soften their aged appearance. Patients are less interested in dealing with procedures that involve significant downtime. People are busy and they want to spend time away from work, on vacation, not at home recuperating from surgery.

The Pellevé™ wrinkle reduction system

In 2009, the FDA gave clearance to Pellevé™ (Ellman International, Inc., Hicksville, NY), a radiofrequency (RF) device for the treatment of mild to moderate facial wrinkles. Ellman's skin tightening technology has been in many countries, other than the US, since 2005 under the name Radiage® (Ellman International, Inc.). Ellman International, Inc., was created in 1959 and is based in Hicksville, NY. Pellevé was an offshoot from their primary device, the Surgitron®, which used RF for surgical cutting and coagulation, and has been used by dermatologic surgeons and plastic surgeons for many years. Pellevé tightens skin by producing heat in the dermis underlying the epidermis. It also helps produce more collagen to build up the infrastructure of the skin and induce tightening. Pellevé's effectiveness was shown in a blinded study involving 93 subjects, 87% of whom showed significant results in improvement of skin laxity and wrinkle reduction after one treatment, which was still present at 6 months.

Invasive techniques

Lasers, such as the carbon dioxide laser of the past, would ablatively treat the skin and dermis leaving the equivalent of a second degree burn. This would take almost 2 weeks to heal and patients often objected to the long-term redness, thinning, and even whitening of their skin. The risk of scarring is greater with such treatments than with non-invasive treatments.

Non-invasive techniques

A number of non-invasive techniques are available today to cause tightening of the facial tissues. The advantage of Pellevé is that there is typically very little to no downtime, although there can be mild swelling. It is not a painful procedure. Thermage® (Solta Medical, Inc., Hayward, CA) also uses RF and has become less painful with their latest technology. Ultherapy® (Ulthera, Inc., Mesa, AZ) is a deep focused ultrasonic energy that penetrates deeper than Pellevé, but is much more painful. The treatment is guided through a monitor so that the physician sees the depth of tissues that are being treated and the energy is targeted to cause connective tissue tightening and dermal collagen production. Less energy per treatment pass, but more passes, has shown to be more effective with these devices.

Pellevé uses a continual movement of the handpiece so the skin is not being heated in one area too long, but the passes are numerous so that the dermal fibroblast cells can be stimulated to produce more collagen. In fact, many patients describe it as having a deep heat massage and feel relaxed after the treatment. It can be done on patients who are on blood thinners and Pellevé is not an invasive procedure so there are fewer risks.

There is an artificial immediate improvement in a patient's appearance that is derived from the microscopic swelling of tissues after treatment with the Pellevé system. Fine lines and wrinkles appear less prominent owing to



Figure 1 (A) Patient before treatment with Pellevé, and (B) 1 month after treatment

this swelling, but of course, they will reappear in the next day or two as the minimal swelling from the Pellevé treatment resolves. The patient can take advantage of this side-effect by electing to have treatment 1 or 2 days before an important social function to look their best. Think of it as a RF facial. However, it cannot be guaranteed that someone who is having the treatment so soon before needing to look presentable wouldn't develop an unusual side-effect, such as excessive swelling or even bruising, so consider this before agreeing to do the procedure at such a time.

Revolumising the ageing face

The ageing face is caused by the level of sun exposure the patient had when they were younger. This is the largest contributing factor to the ageing of the external face. Sagging of the facial skin is often related to fat atrophy or wasting of the deeper facial areas. Pellevé, or other non-invasive tightening devices, are not the sole treatment for many individuals. The sagging can be improved by revolumisation with fillers, such as Juvéderm® (Allergan, Inc., Irvine, CA), Restylane® (Q-Med, a Galderma Division, Uppsala, Sweden), Belotero® (Merz Aesthetics, Inc., Frankfurt, Germany), or Radiesse® (Merz Aesthetics, Inc.), as well as collagen stimulators such as Sculptra® (Valeant Aesthetics, Montreal, Quebec), and fat grafts.

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Excess skin droopiness can be removed with a face-lift. Skin texture and colour from sunspots and fine lines can be improved with Fraxel® laser (Solta Medical, Inc.), chemical peels, and topical therapy.

The standard protocol in my practice is to provide three to four Pellevé treatments, once every 3-4 weeks. There are no special preoperative instructions, nor are there special post-treatment restrictions. Common areas for treatment are the face, neck, and décolletage, as well as other non-facial areas that have 'sagging skin' but these are off-label uses of the device.

Pellevé treatment can be done in conjunction with BOTOX® (Allergan, Inc.) injections in the crow's feet and frown lines, but we typically inject the BOTOX before so that the skin can improve from Pellevé on a

smoother surface without as much repetitive contraction once the Botox is in effect. Soft tissue fillers can also be injected before the Pellevé treatment, provided the depth of placement is under the effective reach of the Pellevé's RF energy. However, the fillers are often injected after the Pellevé.

Conclusions

Pellevé will not provide the same amount of skin lifting as patients who have a face-lift will experience, but Pellevé skin tightening is meant to offer a softer, more natural rejuvenation process to one's facial ageing process. The ideal candidate is someone who has not suffered an extreme amount of sun damage and is not too terribly 'weathered'. Patients are often in their 40s-60s, but some younger patients have been candidates for one reason or another, and those older than 60 years—and even in their 70s—have obtained good results.

Pellevé RF skin tightening provides collagen production for tighter facial skin and can induce some degree of facial lifting with minimal downtime and little to no pain.