

Combined treatment in aesthetic medicine using LPG endermologie for facial rejuvenation: a case series

Abstract

Background: The request of aesthetic treatment is growing year on year and more and more treatments are available on the market. Over the last few years, more and more studies showing the importance of using a combination approach for optimum results.

Objective: This case series aims to evaluate the efficacy of combining non-surgical aesthetic procedure with LPG Endermologie for Facial Rejuvenation.

Patients and Methods: A total of twenty patients from 30 to 75 years old were treated using LPG Endermologie and a specific aesthetic procedure.

Results: At D0, clinical skin quality scoring showed that LPG Endermologie significantly reduced downtime, enhanced outcome and longer lasting effect. The Global Aesthetic Improvement Scale (GAIS) by the evaluator at D0 reported much improved.

Conclusions: Our findings show that combining LPG Endermologie treatment with a non-surgical aesthetic procedure injection can significantly improve the skin's overall appearance and decrease the downtime compare to the non-surgical procedure alone. The results suggest that the combinatory strategy is effective, safe, and associated with a high level of patient satisfaction.

Keywords: LPG endermologie, facial rejuvenation, combining treatment

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Introduction

Request for non-surgical aesthetic procedures are experiencing unprecedented interest in a society looking for well-aging.^{1,2,3,4} Over the past few years, we've noticed the normalization of appearance-changing cosmetic procedures. As techniques have become more complex, non-surgical procedures provide a 'look' akin to that of an actual surgery with drastically reduced treatment and recovery times.^{5,6,7} People are integrating cosmetic procedures - both surgical and non-surgical - into their personal care routines, and treating these procedures with the same caution as you might approach a haircut or visit to the dentist.^{8,9,10,11} The International Society of Aesthetic Plastic Surgery (ISAPS) produced a global report on aesthetic and cosmetic procedures performed in 2018, which revealed that a total of 23,266,374 procedures were carried out globally in 2018, compared with around 20,236,901 in 2014. We're unsurprised to learn that there has been a 15% increase in cosmetic procedures over this four-year period, especially given the rise in the popularity of non-surgical procedures.^{11,12,13} The report also revealed that between 2017 - 2018, there was a 10% increase in the popularity of nonsurgical procedures and a decrease of 0.6% in surgical procedures, demonstrating the normalization of these so-called 'tweakments'. In this study, we chose to investigate the synergistic efficacy of LPG Endermologie. These will help recreate the ideal environment for fibroblasts, leading to an increase in collagen and elastin production for the restructuring of mature skin and preventing future aging signs.^{5,6,7,14,15,12}

Material and methods

Patients

Twenty patients from 30 to 75 years old, women and men, accepted to participate in this combined treatment. The median age was 45 years (range 30 - 75 years). All the patients were healthy, with no previous history of surgical or non-surgical procedures to improve skin quality on the face in the last 12 months.

Procedure

The study was conducted over a period of 3 weeks. All patients underwent a combined aesthetic treatment with LPG Endermologie.

Criteria for efficacy evaluation

The evaluator conducted a complete assessment of each patient. The PRE-CO-MA-RE parameter was used to determine treatment efficacy:

- I. Prepare the cutaneous and subcutaneous tissue to restore the cellular activity.^{5,6,7}
- II. Combine to treat the indications.^{14,15}
- III. Maintain to increase patient loyalty and satisfaction.
- IV. Repair to treat potential side effects.^{16,17,18,19}

Protocole

Prepare to stimulate micro-circulation, mobilise interstitial fluids and soften the tissues by using LPG Endermologie one week prior the procedure.

Combine the aesthetic procedure for the:

- I. **Face:** Loss of oval, widening of facial curves, changes in skin quality (wrinkles, fine lines, spots, rosacea).^{20,8,21,22}
- II. **Body:** For cellulite, localised ad resistant fat and sagging skin.^{17,23,24}

Use LPG Endermologie, the same day and prior of the procedure, for eight minutes.

Maintain to mobilise fluids, relieve pain, promote natural lipolysis, stimulate collagen and elastin production. LPG Endermologie from 3 to 14 days post procedure depending on the aesthetic treatment.

Repair to treat possible side effects, such as hematoma, oedema, fibrosis, scars. To use LPG Endermologie as soon as possible.

Results



Figure 1 Ten min perpendicular to wrinkles in the injected area to plump.

LPG Endermologie + Botulinum Toxin:

Indications: wrinkles forehead and crow's feet

Maintain: week 3-4, at a distance from the injection



Figure 2 Indications: Nasolabial fold, skin texture.

LPG Endermologie + Filler:

Prepare: week -1:2 LPG session

Combine: Day of the procedure: 8 min prior.

Maintain:Week 2-3-4:2 LPG sessions



Figure 3 LPG Endermologie + Superficial Peel:

Indications: Dull complexion, loss of skin tonicity, uneven pigmentation.

Prepare: week -1. 2 LPG sessions

Combine: day of the procedure: 8 min toning

Week 3-4-5-6: one LPG session



Figure 4 LPG Endermologie + Microneedling:

Indications: hydration, collagen and elastin production, radiance and wrinkles

Prepare: week -1. 1 LPG sessions

Combine: day of the procedure: None

Week 1-2-3-4-5: one LPG session



Figure 5 LPG Endermologie + Peeling + Mesotherapy:

Indications: hydration, sun damaged, loss of firmness.

Prepare: week -1. 1 LPG sessions

Combine: day of the procedure: None

Week 1-2-3-4-5: one LPG session



Figure 6 LPG Endermologie + PDO Threads:

Indications: loss of skin elasticity, firmness.

Prepare: week -1. 2 LPG sessions

Combine: day of the procedure: one session 8 minutes

Week 1-2-3-4-5: one LPG session.



Figure 7 LPG Endermologie + Endolift:

Indications: oval of the face, skin laxity.

Prepare: week -1. 2 LPG sessions

Combine: day of the procedure: one session 8 minutes

Week 1-2-3-4-5: one LPG session.

Discussion

Several studies have demonstrated the effect of Endermologie® treatments on fibroblasts

As early as 1998, in Nashville, Tennessee, researchers from Vanderbilt University tested Endermologie® treatments on an animal model: Yucatan mini-pigs. The histological examination – after biopsy of the treated subcutaneous tissues – showed significant changes in the architecture of those tissues with the appearance of dense and horizontal bands of endogenous collagen in a dose-dependent manner. The collagen content varied from 27% to 130% depending on the number of sessions (10 or 20 sessions).^{8,22,24} Those results demonstrated for the first time the effective stimulation of fibroblasts by Endermologie treatments and were the subject of 2 scientific publications.

In 2002, results observed on collagen in the animal model were confirmed for humans in a study conducted by the DERMEXPERT laboratories in Paris. Results clearly show the links between mechanical stimuli and production of collagen but also of elastic fibers by fibroblasts. Their densification observed in histology shows a firming of the skin and corroborates the clinical dermatological examination – improvement of skin quality, reduction of signs of facial skin aging.

In 2003, an Italian team from La Sapienza University in Rome, carried out a histological study after 8 weeks of treatment. Analysis of skin samples from the treated side showed different changes compared to untreated control skin samples and in particular an increase in the number of fibroblasts nuclei (+37.5% on average) and remodeling of dermis and epidermis. Results show that mechanical stimuli are capable of causing morphological and probably functional changes in skin tissue. Authors interpreted those results as a process of fibroblast activation that proliferates and acquires a «secretory» state under the effect of mechanical stimuli.^{8,18,22,24} In 2015, Professor Humbert's team at the Study and Research Center on Tegument of Besançon, France, compared the behaviour of stimulated (Endermologie®) and unstimulated (control) fibroblasts stemming from skin biopsies on the face.

Results show the intimate effects of the endermologie treatment at the heart of the dermis: stimulation of the production of collagen, elastin and hyaluronic acid (+80%), remodeling of dermis, improvement of signs of skin aging (firmness, luminosity, wrinkles).¹² Overhaul all studies showing the effectiveness of LPG Endermologie combined with aesthetic treatment highlight a holistic approach for the patient for an optimum result with less downtime and better satisfaction.²⁵ Using this approach proves to be more effective towards skin quality, skin tonicity, firmness, hydration, radiance, less wrinkles and fine lines.^{12,13}

Acknowledgments

None.

Conflicts of interest

Ambassador for Fillmed Laboratory, LPG Laboratory and MINT PDO Threads.

Statement of ethics

All procedures adopted in the present study were in respect to the ethical standards in the World Medical Association Declaration of Helsinki.

Written informed consent was obtained from the patients for publication of this case report and any accompanying images. This retrospective review of patient data did not require ethical approval in accordance with local/national guidelines.

Author contributions

Dr Philippe Hamida-Pisal conceived the presented idea, carried out the procedures and wrote the manuscript.

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