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Evaluation study

Topical treatment of cutaneous ptosis: Endolift® treatment with 1470-nm wavelength Eufoton® LASEmaR®1500

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DISCLOSURE: **ALL AUTHORS REPORT NO CONFLICTS OF INTEREST RELEVANT TO THIS ARTICLE.**

ABSTRACT

This study was designed to evaluate the efficiency of Endolift®, a novel minimally invasive outpatient laser procedure, for the treatment of cutaneous ptosis. Thirty patients aged 25 to 60, 25 women and 5 men, were enrolled on this study. Twenty women got skin ptosis after pregnancy, while 5 women and 5 men got skin laxity after losing body weight. Patients have undergone a single treatment under local anaesthesia. Treatment was performed using the Endolift® procedure, which consists of the laser Eufoton® LASEmaR® 1500. This device uses a 1470 nm wavelength laser lead by micro-optical fibres of different calibres directly inside the skin. Optimal results were obtained in 70% of patients, 18% had good results, and 12% reported moderate results. No patients reported any hematoma. Ten patients took analgesics for a maximum of two days; 5 reported pain resolved after 7 days. In addition, 8 patients reported their first results after 7 to 20 days improving results over time. The follow-up was done after 1, 3, 6 and 12 months when all patients overcame the expected result. No side effect was recorded. These data confirm that Endolift® is a safe and effective procedure for cutaneous ptosis representing a new category for body treatments and a real alternative to surgery.

INTRODUCTION

Cutaneous ptosis is a highly common disturbance affecting people of both sexes and in a high range of ages. The most common cause of cutaneous ptosis is pregnancy and rapid weight loss. Until recently, surgery was the most effective treatment for this disturbance. Nevertheless, many patients reject surgical treatments due to extended downtime, side effects and general anaesthesia. Numerous non-invasive devices to treat cutaneous ptosis, based on different energy sources such as ultrasound or radio frequency, already exist. However, these devices have mild to moderate results, mainly after multiple sessions.

Nevertheless, patients search for a non-invasive, single-session treatment that performs better. A significant gap exists between surgery and non-invasive treatment. One of the market's growing demands is the one for cutaneous ptosis, although often, patient results are satisfied (1-5). In the present study, however, 89% of satisfied patients were recorded.

MATERIALS AND METHODS

Thirty patients aged 25 to 60 y-o, 25 women and 5 men, were enrolled on this study. Twenty women got skin ptosis after pregnancy, while 5 women and 5 men got skin laxity after a substantial body weight loss (Fig. 1, 2). Patients have undergone a single treatment under local anaesthesia. Treatment was performed using the Endolift® procedure, consisting of the device Eufoton® LASEmaR® 1500. This device uses a 1470 nm wavelength laser lead by micro-optical fibres of different calibres (300, 400, 600 microns laser fibres) directly inside the skin. The device is equipped with two kinds of laser fibers: frontal and radial light emission. In this study, were utilized radial light emission fibre of 600 microns.

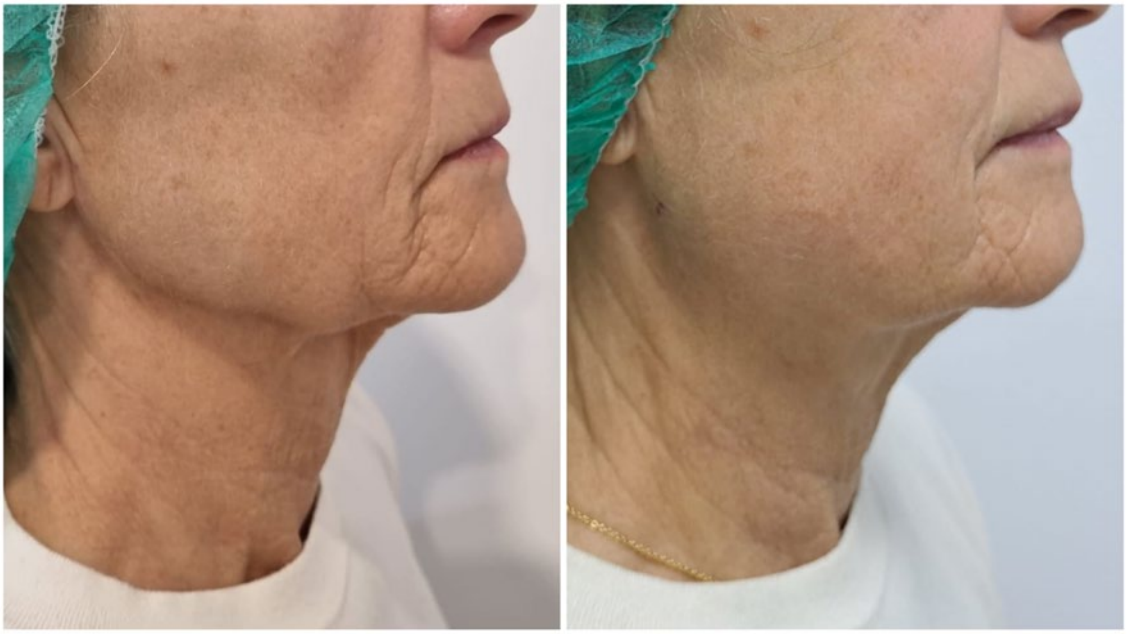

Fig. 1. *Cutaneous ptosis. Treatment ENDOLIFT® - Eufoton® LASEmaR® 1500, 1470-nm.* ***Left****: before;* ***Right****: after one session.*

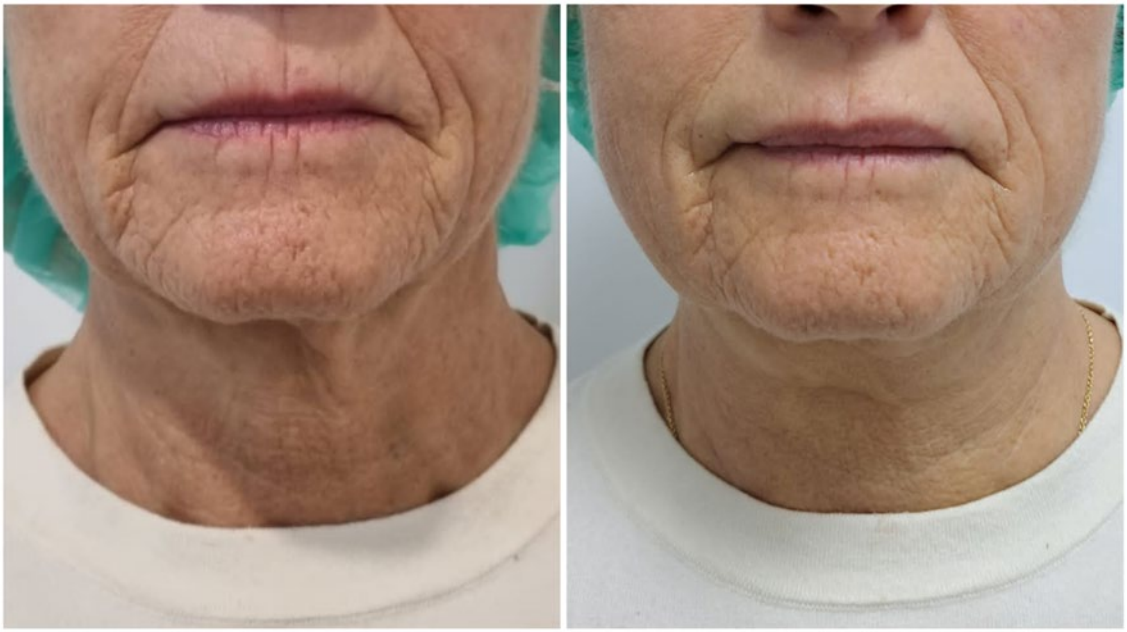

Fig. 2. *Cutaneous ptosis. Treatment ENDOLIFT® - Eufoton® LASEmaR® 1500, 1470-nm. Left: before; Right: after one session.*

In particular, the device was set as follows: laser power range was 6-9 Watts, repeated pulsed mode, pulse duration 25 ms, pause time 75 ms, average energy distribution 7000J for the whole periumbilical area, flanks, and love handles. The fibres were inserted on the suprapubic area (two) and above the hip (two).

Optical energy was irradiated directly under the skin to promote collagen neocollagenesis due to the thermal effect. During and after the procedure, we used a skin air-cooling device. After the Endolift® procedure, patients were prophylactically treated with antibiotics per oral administration. During Endolift® treatment, we

also obtained a volumetric improvement in lipodystrophy: patients excreted the released lipid tissue through urination.

RESULTS

Of the 30 patients enrolled, none of them reported any hematoma. Ten patients took analgesics for a maximum of two days; 5 reported some pain resolved after 7 days. In addition, 8 patients reported their first results after 7 to 20 days improving results over time. We did follow-ups over 1, 3, 6 and 12 months. After 12 months, all patients reached the final expected result. Optimal results were obtained in 70% of patients, 18% had good results, and 12% reported moderate results. Average downtime was between 1 and 3 days. There was no need to wear an elastic bandage, and no side effect was recorded. After the treatment, we performed lymphatic drainage for 3 to 7 days.

DISCUSSION

Endolift® efficacy, a novel minimally invasive office-based laser procedure for the treatment of cutaneous ptosis, was performed on 30 patients in the range of 25 to 60 years; 25 women and 5 men were enrolled on this study. In addition, 20 women got skin ptosis after pregnancy, while 5 women and 5 men got skin ptosis after losing body weight.

These data confirm that Endolift® is a safe and effective procedure for cutaneous ptosis representing a new category for body treatments and a real alternative to surgery.

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