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Evaluation study

Hidradenitis suppurativa: interstitial laser treatment with Endolift® procedure using Eufoton® LASEmaR®1500 1470-nm wavelength

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

ABSTRACT

Hidradenitis suppurativa, also known as acne inversa, is a chronic inflammatory skin disease which affects ~1% of the world population. Hidradenitis suppurativa significantly impacts patients' quality of life due to its chronic nature and frequently occurring relapses. Therefore, Hidradenitis suppurativa patients need to get an early diagnosis. This study was designed to evaluate the efficiency of Endolift®, a novel minimally invasive outpatient laser procedure, for treating Hidradenitis suppurativa. Thirty patients in the range of 19 to 43 y-o, 20 women and 10 men, were enrolled on this study. Patients have undergone a single treatment under tumescent 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 directly inside the skin. This treatment aims to destroy problematic glands with a thermal effect and remove them with liposuction. The treatment has a strong anti-inflammatory effect and promotes neocollagenesis. Eighteen patients obtained optimal results, 5 had good results, and 7 reported moderate results. The treatment was repeated for 7 patients for small refractory areas. Patients with earlier onset of the disease generally had better results. No side effect was recorded. Endolift® treatment represents a big hope for the patient because it is a safe, effective, minimally invasive procedure and can be repeated.

INTRODUCTION

Hidradenitis suppurativa (HS), also known as acne inversa, is a chronic inflammatory skin disease affecting ~1% of the world population (1). HS typically occurs with an average onset of around 20–30 years of age and with a female predominance (2). Genetically predisposition affects approximately one-third of patients (3). Moreover, lifestyle factors, such as smoking and obesity, play a crucial role in the clinical course of HS is played by lifestyle factors, such as obesity and smoking (4–6). HS significantly impacts the patient's quality of life due to its chronic nature and frequently occurring relapses. HS can profoundly affect social, working, and psychological aspects (2, 7–9). Therefore, early diagnosis is essential for HS patients to ensure the best possible course of this disease (10). In several cases, medical therapy is unsatisfactory, and the way to stop the progression of HS is sometimes very difficult to find (11). This study was designed to evaluate the efficiency of Endolift®, a novel minimally invasive outpatient laser procedure, for treating HS.

MATERIALS AND METHODS

Thirty patients in the range of 19 to 43 y-o, 20 women and 10 men, were enrolled on this study. Patients have undergone a single treatment under tumescence anaesthesia. Treatment was performed using the Endolift® procedure, which consists of the device Eufoton® LASEmaR® 1500. This device uses a 1470 nm wavelength laser lead by micro-optical fibres (Fig. 1, 2). The procedure lasted 15 to 30 minutes. After that, patients were prophylactically treated with antibiotics per oral administration.

Fig. 1. *Hidradenitis suppurativa treatment. Endolift® procedure (which consists of the use of the device Eufoton® LASEmaR® 1500, 1470-nm wavelength laser), a single treatment, was performed. The figure shows the effect on a 40-year-old man.*

Fig. 2. *Hidradenitis suppurativa treatment. Endolift® procedure (which consists of the use of the device Eufoton® LASEmaR® 1500, 1470-nm wavelength laser), a single treatment, was performed. The figure shows the effect on a 38-year-old woman.*

Optical energy was irradiated directly under the skin destroying problematic glands and combining the thermal with the mechanical effect. The treatment has a strong anti-inflammatory effect and promotes neocollagenesis. The patients were followed for 1, 3, 6 and 9 months.

RESULTS

Of the 30 patients enrolled (20 women and 10 men), none of them reported any side effects. Eighteen patients reported optimal results, 5 had good results, and 7 had moderate ones. Seven patients had to repeat the treatment for small refractory areas. Patients with earlier onset of the disease generally had better results. We did follow-ups over 1, 3, 6 and 9 months.

DISCUSSION

Endolift® efficacy, a novel minimally invasive outpatient laser procedure for the treatment of hidradenitis suppurativa, was performed on 30 patients in the range of 19 to 43 y-o, 20 women and 10 men. Treatment Endolift® represents a big hope for the patient because it is a safe, effective, minimally invasive procedure, and the repetition of the laser treatment has no side effects.

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