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Using the Vbeam® for Treatment of Rosacea

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Introduction

Rosacea is a chronic inflammatory eruption of the central portion of the face most frequently seen in women over 30 years old. Although the exact cause is still unknown, we do know that the increase in the number of Demodex folliculorum propitiates the disease and/or can make the condition more difficult to treat.¹

The first indication is an erythema that breaks out in the middle of the face, with the condition worsening and becoming more frequent and persistent over time. As the disease evolves, the erythema can spread to the forehead, cheeks, chin, and nose; and at the same time, nodular papules, pustules, and telangiectasias often appear.²

In some individuals, particularly men, progressive hyperplasia of the nasal sebaceous glands can occur, producing disfigurement often referred to as “rhinophyma”.

Other factors contribute to the exacerbation of the disease, including overexposure to the sun, emotional stress, repeated exposure to very hot or cold temperatures, wind, smoking, alcohol, and certain foods.³

Rosacea-associated telangiectasia and erythema have been successfully treated with pulsed dye laser (PDL).

PDLs have been proven safe and effective in the treatment of a variety of vascular lesions. The laser selectively targets vascular structure through selective light absorbed by oxyhemoglobin and pulse duration that

prevent damage to the epidermis and the surrounding dermis.⁵

The development of purpuric spots after treatment with PDL is a well-known side effect. This side effect might not be cosmetically acceptable to patients, but usually resolves within 10 to 14 days after treatment.

Longer pulse duration PDL may have the same treatment efficacy without producing lasting purpura.⁶

Method

On average we treat 10 new patients with rosacea per month. In most cases, we use a combination of several different treatment methodologies. Patients are immediately directed to begin using sunscreen of SPF>30.

The Vbeam 595 nm pulsed dye laser is used to treat the telangiectasias associated with rosacea using subpurpuric fluence and pulse duration, hydration to address dry skin, and chemical peels to minimize papule inflammation.

We present the results of two patients treated with hydration and the Vbeam laser:

Patient 1: A 50-year-old female with severe facial erythema. First treatment—Vbeam: 10 mm, 7.5 J/cm², 10 ms, 20/10 Dynamic Cooling Device™ (DCD™), 180 pulses; second treatment—Vbeam: 7 mm, 10 J/cm², 10 ms, 20/10 DCD, 249 pulses.



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Patient 2: A 35-year-old male with erythema and irritation in the beard area. First treatment—Vbeam: 7 mm, 7.0 J/cm², 10 ms, 30/20 DCD, 56 pulses; second treatment—Vbeam: 7 mm, 7.5 J/cm², 10 ms, 30/20 DCD, 64 pulses; third treatment—Vbeam: 7 mm, 8.5 J/cm², 10 ms, 20/20 DCD, 72 pulses.

Treatments were administered in one-month intervals, and hydration treatments were delivered one week after each laser session.

Results

Erythema worsened in the first three days after treatment, with transitory edema considered tolerable by the patients. Transitory purpura which resolves in seven or fewer days, is also possible.

Improvement in the telangiectasias and general condition of the face is observed seven to 10 days after the laser treatment.

Six months after the last application, we can see a greater improvement. Patient satisfaction with the treatments is very high.

Discussion

The Vbeam (“V” for “vascular”) pulse dye laser removes the extensive superficial network of veins and related redness (erythema) of facial rosacea, keeping the disease in check and preventing further skin degradation and scaling.

The number of treatments required depends upon the severity of the case. At a minimum, three to six sessions are generally required with intervals between treatments ranging from one to two months. One week after the

laser treatment, we recommended deep hydration therapy as well. Multiple treatments are required, and expectations should be set accordingly.

Most of the patients felt that they had improved after the first treatment. Our views were shared with other researchers^{4,6}

Conclusion

The key to the successful management of rosacea is early diagnosis and treatment. It is also important to follow all of your dermatologist’s instructions. Rosacea can be treated and controlled if medical advice is sought in the early stages. When left untreated, rosacea will worsen and may be more difficult to treat.

References

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Patient 1: Pretreatment



Patient 1: Three months after three treatments



Patient 1: Six months after three treatments



Patient 2: Pretreatment



Patient 2: Post-treatment

Treatment parameters are subject to change—please consult your sales representative or clinical consultant, or visit www.mycandela.com to obtain current information regarding the use of your Candela device.

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