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Treating Facial Veins with the GentleYAG® Laser 1.5 mm Spot

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Introduction

Treating facial telangiectasias is often a challenge since vessel size and needle-phobic patients generally preclude sclerotherapy. In addition, certain vessels, especially those in the nasal alar groove, tend to be resistant to other laser modalities.

Using a variety of wavelengths, laser therapy is a minimally invasive means of treating facial veins that is very effective and satisfying for the patient. From a practitioner's viewpoint, the risk profile of the selected treatment modality has to be extremely low when working on the face. Each laser, including the spot size utilized and the method of cooling the skin, has its distinct advantages. These issues need to be considered when choosing a technology to treat a given condition.

This paper reports on our success in using a 1.5 mm spot size of the GentleYAG Nd:YAG laser from Candela for the treatment of unwanted facial veins.

Method

Lasers treat vascular anomalies by emitting a wavelength that is preferentially absorbed by hemoglobin (the red portion of blood) in the targeted vessels. The laser causes the vein to collapse and eventually to be absorbed by the body. To be successful, the laser energy must be provided with extended pulse durations and with enough fluence to completely heat the unwanted vessel. In addition, the energy must be coupled with a mechanism to cool and protect the skin, thereby preventing damage to the overlying epidermis.

The subject of this study was a 46-year-old male (skin type IV) with isolated telangiectasias on the nose. He was treated using a 1064 nm laser and 1.5 mm spot using the following treatment parameters: (380 J/cm², 20 ms pulsed duration, and Dynamic Cooling Device™ (DCD™) 20/20 ms). The patient was treated without the use of a topical anesthetic, and his nose was bulk cooled with ice following treatment.

Results

The patient experienced no discomfort at all during the procedure, and the treatment was performed without causing purpura. His post-operative course was uneventful. Before-and-after photography demonstrates clearance of the targeted vessels, as well as the efficacy of using a 1064 nm wavelength laser and a very small spot size on facial vasculature.

Discussion

Well known for its safety and efficacy in the treatment of leg veins with the 3 mm spot, the Candela GentleYAG 1.5 mm spot offers several advantages for treating facial telangiectasias.

In contrast to vascular lasers with shorter wavelengths, such as the KTP laser, the GentleYAG at 1064 nm can be used on all skin types. It reduces the absorption of energy by melanin and lowers the incidence of epidermal injury and resulting pigment disorders.

While the 3.0 mm spot is preferable for leg vein treatments, the 1.5 mm spot is ideal for treating facial veins. The small spot size yields enhanced



safety, efficacy, and patient comfort. It allows the practitioner to trace the targeted vessel, avoiding damage to the surrounding skin. With the Candela GentleYAG's 1.5 mm spot, it is rare to see postoperative grooving on the face. This is more common when using the larger spots of other Nd:YAG lasers.

The DCD cooling used by the GentleYAG laser offers significant advantages over other vascular lasers as well. For one, the operator is able to maintain full visibility of the vessels being treated and can closely monitor the laser-skin interaction. This is in contrast to systems with contact cooling or those that rely on the application of a cold gel, both of which completely obscure the treatment field. Better visibility translates into enhanced safety and improved results.

With the GentleYAG, the amount and timing of pre-cooling are set by the operator and are consistent and dependable, attributes lacking with other methods of cooling. The GentleYAG also offers a post-cooling option to further improve safety.

In addition to safety, the cold cryogen spray, which is delivered milliseconds before each pulse of the laser, yields faster treatment times and enhanced patient comfort. Treatment of facial vessels with the 1.5 mm spot involves no discomfort.

We may use the GentleYAG in combination with or alternating with the Vbeam® Pulsed Dye laser and the Ellipse I²PL™ system for the generalized redness seen on facial skin.

The GentleYAG's specifications—1064 nm energy, 1.5 mm spot, extended pulse durations, high fluences, and DCD epidermal cooling—allow physicians to treat facial veins quickly, safely, and effectively.

Given the speed, effectiveness, and ease-of-use of GentleYAG for vascular treatments, I believe that there is no more versatile laser for treating isolated facial blood vessels than the GentleYAG from Candela.



Figure 1. Pretreatment.



Figure 2. Post one treatment.

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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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