Using the Vbeam® for Treatment of Acne Scars

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Introduction

Acne vulgaris is a chronic inflammatory disease of the pilosebaceous follicles, characterized by comedones, papules, pustules, cysts, nodules, and often scars. Sites of predilection are the face, neck, upper trunk, and upper arms.

Ninety percent of all teenagers have some degree of acne. However, the dermatosis may begin in the twenties or thirties, and may even persist in adulthood for many years. It is a disease that affects both adolescents and adults.¹

Some people develop more serious forms of acne that can result in cicatricial sequelae and even scarring.

Regardless of the severity of acne—from simple acne, acne cysts, or pus spines to the more serious forms of acne that literally ravage the skin—it is important to consult with a dermatologist. There are a variety of treatment options today for treating acne and acne scarring.

Methods used for scar correction include tissue augmentation, peeling, excision and suture, dermabrasion, subincision, chemical reconstruction, ablative lasers, and nonablative lasers.²

The use of the pulsed dye laser in the treatment of active acne vulgaris is not very efficient.³

The Vbeam laser is one such nonablative methodology, and is often employed when severe acne scarring is present (e.g., deep red scars).

This paper reports on the efficacy of using Candela’s Vbeam® laser to treat acne scarring.

Method

We will present three cases using the Vbeam 595 nm pulsed dye laser to treat cicatricial acne with atrophic scarring. Patients were seen monthly and received a total of two to six treatments.

Post-treatment, all patients were directed to use sunscreen during the day and face cream containing tretinoin or Adapalen in the evening.

The first patient is a 30-year-old female presenting with acne since adolescence. Previous prescriptive treatment with dermabrasion of the acne scar made the patient’s skin very erythematous.

We treated monthly using the Vbeam laser for a total of six treatments using the following treatment parameters: 7 mm spot, 3 ms pulse duration, fluence 7–7.5 J/cm², and 20/10 Dynamic Cooling Device™ (DCD™).

The second patient is a 16-year-old male with cicatricial acne. Previously, the acne condition was treated with only Adapalen topical and some chemical peelings with salicylic acid. We treated twice (one-month apart) with the Vbeam laser and the following parameters: 7 mm spot, 10 ms pulse duration, fluence 7.5–8 J/cm², and 30/20 DCD.

The third patient is a 22-year-old male, whose acne was previously treated with oral antibiotics for six months. He presented with atrophic scars with a fibrous aspect. We treated monthly using the Vbeam laser three times, and twice with three-month intervals between treatments. The following Vbeam treatment parameters were employed—7 mm spot, 6 ms pulse duration, fluence 9–10.5 J/cm², and 20/20 DCD.
Results

Following the laser treatments, there is no desquamation of the skin, and the patient is able to return to normal activities immediately after the procedure. Directly following the treatment, the skin is hyperemic and demonstrates light purpura that typically resolves after three days. In some patients, there was transitory edema that resolved in seven or fewer days.

Initial improvement in the appearance of the acne scar can be observed one month after the first laser treatment.

The best response occurred the one month after the last treatment.

Discussion

Several options exist for the treatment of acne and acne scarring. In fact, it may be useful to use more than one treatment methodology on the same patient. In these cases, progress may be slowed, depending on the compatibility of the different treatment regimes.

However, while the treatment times may be long, the results will also persist for a very long time.

Conclusion

The Vbeam laser is a nonablative laser that acts to smooth out the skin through collagen remodeling without desquamation.

We recommend the use of this laser for acne scar treatments, especially on newer scars. The laser stimulates the production of new collagen, resulting in natural- and robust-looking skin.

References