Treating Acne Scars Using Radio Frequency Energy

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INTRODUCTION

Acne scarring on the face is a very common concern for the patients I see in my practice, and presents a challenging condition to treat. Methods using injectable fillers or ablative lasers can help, but sometimes require social downtime. I have recently begun offering a treatment using fractional radio frequency (RF) energy (INFINI, Lutronic, Inc., Fremont, CA) that I can deliver deep into the scars and healthy skin around them that can produce good cosmetic results by smoothing out the unevenness sometimes associated with acne scarring. This case study report presents one patient from my practice that received very good results following treatment with the INFINI system.

DEVICE DESCRIPTION

The INFINI device delivers RF energy through 200 micron diameter microneedles that are arranged as a 7 X 7 array inside disposable tip, and which can penetrate from 0.5mm to 3.5mm into the skin, creating zones of thermal coagulation in the dermis without damaging the epidermis. The amount of coagulation is dependant on the power setting selected, from 1 (2.5W) to a maximum of setting 20 (50W), and the exposure time, adjustable from 10ms to 1 second.

PATIENT DETAILS

This patient presented as a 48 y/o male with type III skin with moderate to severe acne scarring, causing noticeable irregularity in his facial smoothness on the forehead, around the eyes, across the cheeks and along the jawline and chin. He received three treatments with the INFINI system spaced one month apart, and was then seen again six months after the third treatment.

TREATMENT PROTOCOL

Prior to the INFINI treatments the face was cleaned with alcohol wipes, and topical anesthesia consisting of LMX 5% for 60 minutes. The anesthetic was removed with gauze and then cleaned again with alcohol. In the first treatment session the forehead was treated with a power setting of 6, exposure time 80ms and a microneedle depth up to 1.0 mm. The cheeks were treated slightly more aggressively with power 7, exposure time 130, and depth up to 2.25mm; and the lower eyelids at settings of 6/60ms/0.75mm. All areas then received a second pass using similar settings. Two passes were again used in the second treatment session one month later, increasing settings up to power 8/60ms/1.0 on the forehead and temples; 8/90ms/2.0mm on the nose; and up to 9/110ms/2.5mm on the cheeks and chin. For his third treatment session we used still higher settings, delivering two passes at power...

7/70ms/1.0mm on the forehead; and up to power 10/110ms/2.5mm on the cheeks and chin. Mild erythema and edema were seen initially but resolved by 24 hours.

RESULTS

The photographs below show this patient before treatment and the results seen six months after his third INFINI treatment.

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<tr>
<th>Date Taken: 8/14/2013</th>
<th>Date Taken: 4/14/2014</th>
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<tbody>
<tr>
<td>Before INFINI Treatment</td>
<td>Six Months After Three INFINI Treatments</td>
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CONCLUSIONS

Good improvement in the appearance of this patient’s acne scarring was seen with each INFINI treatment. Moreover, the improvement continued during the six months after receiving his third and final treatment.

PHYSICIAN COMMENTS

“The INFINI treatments produced excellent results in the appearance of this patient’s acne scarring on the periorbital regions, cheeks and chin. The treatment offers little discomfort with few to no side effects and only minimal downtime compared to other treatment options, and is safe to use on patients with darker skin types and even on sun-tanned skin.”

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PATIENT COMMENTS

“I can truly see a difference, my skin is firmer and the acne scars are less visible…”
PHYSICIAN CONSENT

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I certify that I have obtained the necessary patient consent to share the images included in this case study with Lutronic and understand that these images will be used in Lutronic marketing and education materials. The patients’ rights to privacy will always be protected and eyes will be blocked (as necessary) to ensure this privacy.

Signed:  ______________________________ Date:  ________________

Flor Mayoral, MD