Treatment of Acne Scars with the Infini (fractionated radiofrequency)

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TREATMENT OF ACNE SCARS WITH THE INFINI (FRACTIONATED RADIOFREQUENCY); DR. OMAR IBRAHIMI, PHD

PROFILE

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INTRODUCTION

Acne is the most common skin disease. If not controlled properly, cystic and inflammatory lesions have the potential to leave acne scars (ice pick, pitted, box car and rolling scar variants). The development of fractional laser resurfacing by Harvard dermatologists revolutionized the treatment of acne scarring and is today considered the gold standard for treating acne scarring. The Lutronic Infini was FDA cleared and released to the market at the end of 2013. The Infini delivers fractionated radiofrequency energy through an array of microneedles. The advantage of the Infini over conventional fractional lasers is the proprietary microneedle system delivers energy to the dermis at a controlled depth while sparing the epidermis. This allows for faster recovery and the avoidance of post-inflammatory dyspigmentation. Here I will present to you a representative case of acne scarring encountered in my clinic.

SECTION PLACEHOLDER

The Infini delivers bipolar RF energy through an array of insulated 200 micron thick microneedles that are arranged in a 7 X 7 array (49 microneedles). Penetration depth can be controlled from 0.5mm to 3.5 mm. The RF energy can be adjusted from power setting 1 (2.5 W) to a maximum of setting 20 (50 W) with an exposure time that ranging from 10 ms to 1 second.

PATIENT DETAILS

The patient is a 28 year old medical professional who had severe acne in her teenage and young adult life requiring two course of isotretinoin. She presented to me complaining about the severe acne scarring she was left with even though her acne subsided. We discussed treatment options including ablative and nonablative fractional lasers. Her job would not allow for time off and she was not able to tolerate the downtime with fractional resurfacing. We opted to treat her with the Infini for the sake of less downtime.
**PROTOCOLS**

The patient underwent three treatments over a course of six months. The treatment protocol was as follows: The patient was anesthetized with topical Lidocaine 23%/Tetracaine 7% for 45 minutes. The topical anesthesia was removed with sterile gauze and then the area was prepped with chlorhexidine and then saline soaked gauze. The settings of the Infini were: Three passes, 1\textsuperscript{st} pass: 3mm depth/Level 12/300ms, 2\textsuperscript{nd} pass: 2mm depth/Level 10/200ms 3\textsuperscript{rd} pass: 1mm depth/Level 8/160. The patient was able to return to work the same day of treatment or 1 day afterwards with minimal discomfort. She noted her swelling was mild and lasted 1-2 days. She did not experience any bruising or epidermal changes. She also did not notice any flare in her acne during the recovery period.

**RESULTS**

The patient underwent three treatments over 6 months and then returned for a follow-up visit 3 months following the third treatment.

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**CONCLUSIONS**

The patient rated her improved to be >95%. I agreed with her assessment of dramatic improvement.
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**PHYSICIAN QUOTE**

“I have had the Infini for over a year and am finding that I am increasingly relying on it as my go to device to treat acne scarring. I find that impressive given our office employs several different fractional lasers and devices.”

Omar A. Ibrahimi, MD PhD
Medical Director, Connecticut Skin Institute

**PATIENT QUOTE**

“I felt very self-conscious about my acne scars. I used to spend a lot of time trying to cover them but they would show even with makeup. I found that the recovery from the treatments to be very quick and I was able to return to work the same day as the treatments without many questions from colleagues. My boyfriend comments on how smooth my skin looks without makeup now. It was well worth the expense of treatment.”