

Attenuation of acne scars using high power fractional ablative unipolar radiofrequency and ultrasound for transepidermal delivery of bioactive compounds through microchannels.

Trelles MA1, Martínez-Carpio PA

Author information:

Instituto Médico Vilafortuny, Cambrils, Tarragona, Spain.

Abstract

BACKGROUND AND OBJECTIVE:

To determine the efficacy and safety of a new method for treating acne scarring over a short-term period of 2 months and a long-term period of 6 months.

MATERIALS AND METHODS:

Six faces and 13 shoulders or backs for a total of 19 patients were treated, all of which displayed varying degrees of acne scarring, from moderate to severe. A newly developed high-power unipolar fractional ablative radiofrequency technology was used (iPixel™ RF, Caesarea, Israel), with acoustic pressure ultrasound guided dermal injection of the PixelTreat Scars preparation, through RF Pixel fractionated microchannels. All patients underwent four treatment sessions at 3-week intervals.

RESULTS:

Significant improvement was observed in scarring, both on the face ($P < 0.0001$), and on the back and shoulders ($P < 0.0001$). After 2 months, the percentage of fading on total scarring was 57% on the face and 49% on the back and shoulders; after 6 months, the percentage increased to 62% on the face, and 58% on the back and shoulders, respectively. Patients reported to be Somewhat Satisfied (16%), Satisfied (53%), and Very Satisfied (31%). No unexpected side effects to the ablation and no hypersensitive reactions to PixelTreat Scars were observed.

CONCLUSION:

The bimodal procedure is safe and effective in reducing acne scarring. This represents a new therapeutic alternative of great interest, to be used either as a monotherapy, or in combination with other treatments.

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KEYWORDS:

acne scars; cosmeceuticals; fractional ablation; ultrasound; unipolar radiofrequency