

PicoWay® Laser and Matrix™ System to Address Acne Scars and Improve Overall Skin Texture

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Case Study

A 30-year-old Asian male with Fitzpatrick Skin Type (FST) IV presented with visible facial acne scars, primarily of the boxcar and ice pick types (Figure 1). The patient sought treatment to improve both the depth of his scars and overall skin texture. He underwent four treatment sessions, alternating between Matrix treatments, using the Matrix Pro radiofrequency microneedling (RFM) handpiece, and picosecond laser treatments, using the PicoWay Resolve handpieces.* Treatments were performed at intervals of 1 to 1.5 months (Tables 1 and 2).

Topical anesthesia was applied for 30 minutes prior to each procedure to ensure comfort. Air cooling was used during each session to minimize discomfort, and a recovery mask was applied immediately after treatment. Following each procedure, mild erythema

and swelling were observed, which subsided quickly without complications, and did not interfere with daily activities. The patient was advised to apply a recovery serum, hydrating serum, moisturizer, and sunscreen, as well as to use a recovery mask daily during the first week post-treatment. He was also instructed to avoid extreme heat and prolonged sun exposure for two weeks. No oral medications or additional topical therapies were used throughout the course of treatment.

Two months after the final treatment, the patient demonstrated noticeable clinical improvement (Figure 1). Acne scars appeared shallower, with smoother transitions across previously irregular areas, and the overall skin texture showed significant refinement. The patient was satisfied with the results.



Before treatment

2 months after 4 treatment sessions

Photos courtesy of Adriene Chee, MD. Verve Clinic, Selangor, Malaysia
All images are unretouched. Individual results may vary.

Figure 1: A 30-year-old male presented with visible boxcar and ice pick acne scars on his cheeks. Following a combination protocol that alternated between Matrix™ and PicoWay® treatments, progressive improvement was observed. Two months after the 4th treatment session, the scars appeared shallower, with smoother skin texture and a more even complexion. Overall, the patient achieved a clearer and refined appearance with minimal downtime.

Table 1. Matrix Treatment Parameters

Session #	Handpiece	Treatment area	1 st	2 nd	3 rd	No. of passes	Air cooling	Clinical endpoint			
			Depth (mm)	Energy (J)	Depth (mm)				Energy (J)	Depth (mm)	Energy (J)
1	Matrix Pro	Acne scar tissue (cheek)	3.1	2.0	2.3	1.5	1.5	1.0	2 - 3	Yes	Mild erythema and edema
3	Matrix Pro	Acne scar tissue (cheek)	3.2	2.0	2.3	1.5	1.5	1.0	2 - 3	Yes	Mild erythema and edema

Table 2. PicoWay Treatment Parameters

Session #	Handpiece	Treatment area	Energy (mJ)	No. of passes	Repetition rate (Hz)	Air cooling	Clinical endpoint
2	Resolve 1064	Full face	1.7	10	7	Yes	Mild erythema and edema
	Resolve 532	Full face	0.2	10	7	Yes	Mild erythema and edema
4	Resolve 1064	Full face	2.1	10	7	Yes	Mild erythema and edema
	Resolve 532	Full face	0.25	10	7	Yes	Mild erythema and edema

Summary

This case highlights the benefits of performing PicoWay and Matrix treatments, using a structured, alternating protocol, to enhance treatment outcome for acne scars. Each technology contributes a unique mechanism of action.

RFM treatment delivers controlled thermal injury at variable depths, triggering the creation of collagen.^{1,2} The PicoWay laser provides ultra-short picosecond pulses that generate photoacoustic shockwaves. This mechanism not only fragments pigment but also creates laser-induced optical breakdown (LIOB), which stimulates collagen production and dermal remodeling.³ The Resolve 1064 nm handpiece enables treatment across different skin depths and layers, while also targeting a range of pigments to improve overall skin tone and texture.⁴

By alternating the two modalities, the treatment plan leveraged these complementary thermal and photoacoustic effects, resulting in more noticeable and comprehensive improvement in skin texture. The patient not only experienced a significant reduction in boxcar and ice pick scars but also saw enhanced smoothness and radiance in his overall complexion.

The PicoWay system’s versatility, combined with the collagen-inducing power of the Matrix skin renewal system, makes this dual approach an attractive option for patients seeking effective solutions for acne scar management. Importantly, both technologies are well-suited for use in individuals with wide range of skin types, offering effective outcomes across a broad patient base.

References

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4. Jia X, Zheng L, Fang L, Zhang L, Wu Y, Yang Y, Feng Y, Huang L. Evaluation of the safety and efficacy of a fractional picosecond 1064 nm laser for post-acne erythema in adult Chinese patients. *Skin Res Technol.* 2023 Jan;29(1):e13274.

*Matrix USA FDA 510(k) Premarket Notification [K240070], July 2024; PicoWay USA FDA 510(k) Premarket Notification [K220853], October 2022.



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