

PICOCARE Offers Versatile and Effective Treatment of all Skin Types

By Adrian Lim, M.B.B.S., F.A.C.P., F.A.C.D.

Picosecond lasers are not only effective for pigmentation and tattoos, but also for scars and skin rejuvenation, creating innovative trends in dermatology. And while there are a number of picosecond lasers available, I have chosen PICOCARE from Wontech (Daejeon, Korea) because of its superior engineering and clinical performance. Its 450 ps pulse duration and 1.33 GW peak power provide excellent performance and great results. In my experience with PICOCARE, I have found that it is very versatile, effectively treats a variety of skin lesions and is safe even for darker skin types.

Figure 1



Iron infusion staining (Fitzpatrick Skin Type III) before and two months after two sessions of PICOCARE treatment with 1064 nm
Photos courtesy of Adrian Lim, M.B.B.S., F.A.C.P., F.A.C.D.

Figure 2



Hemosiderin staining (Fitzpatrick Skin Type IV) before and six weeks after three sessions of PICOCARE treatment with 1064 nm
Photos courtesy of Adrian Lim, M.B.B.S., F.A.C.P., F.A.C.D.

Figure 3



Acne scar (Fitzpatrick Skin Type III) before and six weeks after one session of acne scar repair treatment with PICOCARE's 1064 nm Zoom and HEXA MLA handpieces
Photos courtesy of Adrian Lim, M.B.B.S., F.A.C.P., F.A.C.D.

Figure 4



Acne scar / post-inflammatory hyperpigmentation (Fitzpatrick Skin Type V) before, six weeks after one session and six weeks after second session of scar repair treatment with PICOCARE's 1064 nm HEXA MLA handpiece
Photos courtesy of Adrian Lim, M.B.B.S., F.A.C.P., F.A.C.D.

Compared to nanosecond lasers (one billionth of a second), picosecond lasers (one trillionth of a second) offer greater photoacoustic effect versus photothermal effect and, consequently, are associated with fast, efficacious and safe treatments. The picosecond pulse duration can shatter endogenous and exogenous macro-pigment particles into much finer micro-pigment particles, allowing more efficient macrophage clearance. It also produces less procedural discomfort and adverse effects such as vesiculation, purpura and post-inflammatory hypopigmentation.

PICOCARE's dual wavelength (532 nm and 1064 nm) targets epidermal pigmented lesions (e.g. solar lentigines, freckles/ephelides), epidermal pigmented birthmarks (CALM), dermal pigmented birthmarks (e.g. nevus of Ota, Hori's nevus, epidermal nevus), and exogenous pigment (e.g. tattoo, iron-infusion staining). See Figures 1 and 2.

With a novel fractional handpiece, the ultra-short pulses and high-intensity energy generate laser-induced optical breakdown (LIOB). LIOB produces multiple plasma-induced micro-vacuoles within the skin layer (epidermis and/or dermis) without damaging the stratum corneum and dermo-epidermal junctions, resulting in fast and effective tissue repair and remodeling. PICOCARE's HEXA Micro Lens Array (MLA) handpiece has various spot sizes from 3 – 10 mm, allowing physicians to perform more delicate treatments; 3 – 4 mm for acne scar treatment; and 8 – 10 mm for skin rejuvenation (improvements

of enlarged pores, fine lines, wrinkles and uneven skin texture). See Figures 3 and 4.

After only one to three sessions, HEXA MLA rejuvenation is especially effective for enlarged pores, fine lines, wrinkles and uneven skin texture, as well as pigmentation. Since PICOCARE offers minimal procedural discomfort and downtime, with visible results, this treatment is popular among patients with busy lives who desire improved skin quality. See Figures 5 and 6.

PICOCARE is a valuable laser in my practice because it can effectively treat a range of skin conditions, and it is suitable for all skin types. My patients and I have been extremely satisfied with the great results achieved in the treatment of pigmentation, scars and skin rejuvenation. In addition, PICOCARE has recently been advocated for new indications, such as nail fungus and benign melanochia, further extending its versatility.

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Figure 5



Pigmentation and pores (Fitzpatrick Skin Type III) before and two months after three sessions of PICOCARE rejuvenation treatment via a combination of 532 nm and 1064 nm Zoom and HEXA MLA handpieces

Photos courtesy of Adrian Lim, M.B.B.S., F.A.C.P., F.A.C.D.

Figure 6



Photodamage / melasma (Fitzpatrick Skin Type IV) before and four weeks after one session of PICOCARE rejuvenation treatment via a combination of 532 nm and 1064 nm Zoom and HEXA MLA handpieces

Photos courtesy of Adrian Lim, M.B.B.S., F.A.C.P., F.A.C.D.

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