Laser-Based Treatment for Keloids and Hypertrophic Scars

Hideyuki Muramatsu¹,Misako Nomura²,Chizu Kimura¹
¹Wound and Scars Clinic in Toyosu, Tokyo,Japan
²Wound and Scars Clinic in Ginza, Tokyo,Japan

Since its founding in 2017, the Wound and Scars Clinic (Kizu to Kizuato no Clinic, Toyosu, Tokyo) has specialized in scar treatment, focusing on laser-based therapies for keloids and hypertrophic scars. This study retrospectively analyzes 6.5 years of clinical data to assess the efficacy of various laser modalities and adjunctive treatments.

From October 2017 to March 2024, we reviewed patients treated with fractional lasers, long-pulsed Nd:YAG lasers, fractional RF (POTENZA®), and others. Adjunctive therapies included intralesional triamcinolone acetonide (Kenacort®), deprodone plaster (Eclar Plaster®), and botulinum toxin in selected cases.

Case 1 involved a chest keloid post–breast reconstruction treated with 19 Nd:YAG sessions, 7 fractional laser sessions, and botulinum toxin. Significant improvement in elevation and discoloration was achieved after two years. Case 2 described a traumatic hypertrophic scar on the upper lip successfully treated with Nd:YAG laser and POTENZA®, resulting in scar softening and flattening.

Recent literature supports the comparable efficacy of fractional RF and ablative lasers, and emphasizes the emerging role of botulinum toxin. A multimodal, individualized approach remains key to optimal scar management.