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Combined use of autologous platelet-rich plasma and fractional laser in the treatment of atrophic post-acne scars

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Introduction: Recently, autologous platelet-rich plasma (PRP) has attracted considerable attention in the medical field due to its ability to stimulate tissue regenerative processes.

Objective: This study aimed to investigate the potential of PRP in combination with fractional CO₂ laser therapy for the treatment of atrophic post-acne scars.

Methods: A total of 28 patients with atrophic post-acne scars (10 women and 18 men) were enrolled. Fourteen patients underwent ablative fractional CO₂ laser treatment alone, while the remaining 14 received fractional CO₂ laser therapy combined with PRP injections. PRP was administered immediately after the laser procedure. Treatment sessions were repeated at one-month intervals, with a total of 4 to 6 sessions performed.

Results: Clinical outcomes were evaluated using both subjective (patient satisfaction) and objective criteria (resolution of post-ablative inflammatory processes, facial

surface smoothing, and assessment of serial photographs). In the group treated with fractional laser combined with PRP, overall clinical improvement of post-acne scars was observed as early as one month after the first procedures, whereas in the laser-only group, similar clinical dynamics were noted at later stages (after 3–4 sessions).

Conclusion: This study demonstrated that in the management of atrophic post-acne scars, fractional laser treatment combined with PRP enhances the efficacy of laser therapy and shortens the recovery period compared to fractional laser treatment alone.

Biography

Abduadir Abdurashidov is affiliated with Tashkent State Medical University in Uzbekistan, where he is engaged in academic and clinical development within the medical field. His work reflects a commitment to advancing medical knowledge, strengthening clinical skills, and contributing to the healthcare community through continuous learning and professional growth.