Laser Plus Resurfacing Best for Tattoo Removal

'Patients uniformly preferred the combined treatment side for recovery,' noting less blistering and pain.

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FROM THE ANNUAL MEETING OF THE AMERICAN SOCIETY FOR DERMATOLOGIC SURGERY

CHICAGO – Tattoo removal using a combination of Q-switched laser and ablative and nonablative fractional resurfacing treatment yielded better outcomes than did laser treatment alone, a small study has shown.

No scarring, no bullae formation, and no infection were observed with combination treatment in this split-comparison study of 10 tattoos after a total of 43 treatments.

"One of the most interesting observations is patients uniformly preferred the combined treatment side for recovery [in terms of] less blistering and pain, and they were able to leave it open to the air sooner," Dr. Elliot T. Weiss said at the meeting.

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Yellow iron oxide pigments can be targeted with the dual laser treatment.

"In some patients, it appeared equivocal to me in terms of outcome, but patients in each case preferred wound healing with combined therapy," said Dr. Weiss, a dermatologic surgeon in private practice in New York City and Southampton.

N.Y.Q-switched laser treatment is the most common approach to tattoo removal. However, some patients are left with incomplete clearance and/or permanent hypopigmentation, Dr. Weiss said.

He theorized that tattoo clearance would be improved by two fractional resurfacing properties: enhanced inflammatory phagocytic response and prevention of fluid accumulation and blistering with fenestration of the epidermis and dermis.

"You can begin to treat yellow and white iron oxide pigments," he said. "It still requires multiple treatments, but [the results] are still better than with Q-switched ruby alone."

Multiple treatments were required on both sides for each previously untreated tattoo. Participants had the tattoos for an average of 11 years.

Participants reported increased clearance of tattoo pigment with the combined treatment on four tattoos and equivocal clearance in the remaining six tattoos, compared with the side treated with laser only (Dermatol. Surg. (2010 Nov. 12 [doi: 10.1111/j.1524-4725.2010.01821.x]).

A meeting attendee asked which of the combination treatments Dr. Weiss uses first. "I found it more useful to use the ruby [laser] first so you can see where you treated," he said. "The other way around, it was harder to see pigment changes."

Because the tattoos were not homogenous, it was difficult in some cases to see a dramatic difference in pigment clearance. However, optical coherence tomography revealed some more dramatic differences in the split-tattoo treatments. The combined treatment side showed no blistering, for example, compared with formation of blisters on the Q-switched ruby laser-only sides.

Dr. Weiss said that he had no relevant financial disclosures. ■