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 bulbar 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. Elliott T. Weiss said at the meeting.

"In some patients, it appeared equivalent 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 photogagnostic 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 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 side.

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

![Yellow iron oxide pigments can be targeted with the dual laser treatment.](image)

ACZONE® (dapsone) Gel 5% is indicated for the topical treatment of acne vulgaris.

**Important Safety Information**

**WARNINGS AND PRECAUTIONS**

**Hematological effects:** Oral dapsone treatment has produced eosinophilic hemophagocytic syndrome and hemolytic anemia, individuals with glucose-6-phosphate dehydrogenase (G6PD) deficiency are more prone to hemolysis with the use of certain drugs. There was no evidence of clinically relevant hemolysis or hemolytic anemia in patients treated with ACZONE® Gel 5%, including patients who were G6PD deficient. Some subjects with G6PD deficiency using ACZONE® Gel 5% developed laboratory changes suggestive of mild hemolysis. If signs and symptoms suggestive of hemolytic anemia occur, ACZONE® Gel 5% should be discontinued ACZONE® Gel 0% should not be used in patients who are taking oral dapsone or any other medications that interact with the potential for hemolysis reactions. Combination of ACZONE® Gel 5% with methotrexate (Methylprednisolone)* (MTHFR) may increase the likelihood of hemolysis in patients with G6PD deficiency.

**ADVERSE REACTIONS**

The most common adverse reactions of ACZONE® Gel 5% (incidence ≥ 10%) are itchyness, peeling, dryness and erythema of the application site.

**DRUG INTERACTIONS**

Topical application of ACZONE® Gel followed by benzoyl peroxide in subjects with acne vulgaris resulted in a temporary local yellow or orange discoloration of the skin and facial hair (reported by 7% of 98 subjects in a clinical study). Some resolution in 4 to 67 days.

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**Peripheral neuropathy:** Peripheral neuropathy (motor loss and muscle weakness) has been reported with oral dapsone treatment. No events of peripheral neuropathy were observed in clinical trials with topical ACZONE® Gel 5% treatment.

Skin: Skin reactions (blisters, epidermal necrolysis, erythema multiforme, morbilliform and morbilliform reactions, bullous and necrotic dermatitis, erythema nodosum, and urticaria) have been reported with oral dapsone treatment. These types of skin reactions were not observed in clinical trials with topical ACZONE® Gel 5% treatment.

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