# Consider Peels for Dyschromia on a Budget

BY BRUCE JANCIN

MAUI, HAWAII — Have contemporary laser resurfacing methods rendered chemical peels obsolete?

Not by a long shot, according to Dr. Roberta Sengelmann, a dermatologic surgeon in Santa Barbara, Calif. "I still use chemical peels quite a bit in my practice," she said at the annual Hawaii dermatology seminar sponsored by Skin Disease Education Foundation.

Peels are versatile, cost effective, and safe, and require no special equipment. "Why buy a $130,000 laser you'll use once a week when a midlevel peel might do the trick?" she asked.

Dr. Sengelmann shared tips on getting the most out of her peel of choice: the Jessner's solution–trichloroacetic acid (TCA) peel. It's a midlevel peel that penetrates the papillary dermis up to the level of the upper reticular dermis, stimulating collagen production for wrinkle reduction, she explained.

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Jessner's 25%-35% TCA peel can be used to treat a wide variety of skin surface irregularities, including lentigos, flat actinic and seborrheic keratoses, melasma, and fine lines, although it's only minimally helpful for rhytids. The combination peel reliably brings an 80% reduction in dyschromia, according to Dr. Sengelmann. "It's my first choice for dyschromia on a budget," she said.

Outcomes with a Jessner's-TCA peel, in her experience, are analogous to those obtained with a single treatment using a fractional erbium laser, a single pass with an ablative erbium:YAG laser, or four to six sessions with an intense pulsed light laser.

Dr. Sengelmann offered tips on the following aspects of treating patients with the peel:

► **Preoperative skin preparation.** A daily UVA/UVB sunscreen along with 2-6 weeks of once-daily tretinoin and once- or twice-daily hydroquinones should be used before treatment. The topical retinoid thins the stratum corneum so that the TCA penetrates deeper. It also speeds wound healing and minimizes postoperative milia. Lastly, the weeks of skin preparation help the physician to gauge the patient's tolerance for the more intense redness and peeling to come.

► **Materials.** Jessner's solution is composed of resorcinol, salicylic acid, lactic acid, and ethanol. The function of the solution is to break up the epidermal barrier, permitting deeper, more even, and safer wounding with the TCA that follows.

The TCA can be compounded using weight to volume at a reliable pharmacy, but Dr. Sengelmann recommended ordering a large, acid-resistant, dark bottle from the supply house Delasco (www.delasco.com), which will retain its strength for 2 years.

TCA is a keratocoagulant. It's more caustic than phenol, but it has an excellent safety profile, because there is no systemic absorption. Unlike with phenol, occlusion does not increase peel depth with TCA, and TCA cannot be neutralized, so it's important to plan the treatment strategy before application.

► **Pain management.** Dr. Sengelmann said she gives pretreatment diazepam to those who want it. She always uses regional nerve blocks for her Jessner's-TCA peels. And she provides ice-cold wet towels for comfort during the 5-10 minutes of pain that follow TCA application.

► **Technique.** First, the skin is cleaned and degreased. Then, two to four coats of Jessner's solution are applied, with 6 minutes between applications. This creates a light frost. Next, it's time for the regional nerve blocks, often supplemented by local anesthetic around the temple area. This is followed by the TCA, which feels quite hot. Dr. Sengelmann said she applies it evenly with firm pressure using damp cotton balls, a cotton-tip applicator, or gauze. She avoids using abrasive gauze on dark skin types because it can cause postinflammatory

changes. She works in compartmental fashion, applying the TCA first to the forehead, then to the central face, moving down below the jawline and into the hairline so the results will blend.

► **End points.** It's all about the frost, which develops 30-60 seconds after TCA application, peaks in 3-4 minutes, and fades to a florid erythema in 15-30 minutes, she said. Dr. Sengelmann aims for a level 2 or 3 frost using the classification scheme credited to Dr. Mark G. Rubin of the University of California, San Francisco. A level 2 frost—that is, an even frost with pink showing through—is reserved for fair-skinned, thin-skinned patients with moderate to severe actinic damage, including many older white women with small pores. But even with thin-skinned patients Dr. Sengelmann will go to level 3 around the mouth. Level 3 is a blanched, opaque, white frost suitable for the treatment of severe actinic damage or melasma.

Inadequately frosted areas can be touched up after 3-6 minutes. Sebaceous areas often need a second coat in order to achieve even frosting.

► **Postpeel wound care.** Most patients spend postop day 1 resting at home. Beginning on postop day 2, patients should apply 0.25% acetic acid compresses two to four times daily for their antibacterial effect and to help slough off dead epidermis. Liberal use of a petroleum jelly or other bland ointment helps keep the treated area moist and prevents crusting. Showers and gentle use of the finger pads to remove exudate and desiccated tissue are helpful.

On about day 3-4, and often sooner in men, the flakes of dead skin become whole sheets of dead skin. Reepithelialization is typically complete in 5-7 days.

► **Safety.** Resorcinol is such a rare cause of contact dermatitis that Dr. Sengelmann doesn't pretest for it; she said she has seen just one case of resorcinol contact dermatitis in her career. She has never had a scar or infection as a complication of a Jessner's-TCA peel. The worst complication she's encountered was a corneal abrasion that resulted from a small amount of 35% TCA leaking into the orbit despite shielding; it responded favorably to conservative management. Occasionally a patient experiences a persistent splotchy erythema.

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