



Chemical peels cure darker skin.

Author/s: Fred Wilson

New York -- The old idea that chemical peels cannot be used on people of ethnic skin has been eradicated according to Harold E. Pierce, M.D., a Philadelphia dermatologist. "We've done the whole gamut of chemical peels--phenol, Jessner's, trichloroacetic acid (TCA), and glycolic acid--on nonwhite skin," Dr. Pierce said. "Peels have worked on people of different races for years, but dermatologists didn't know it." In the earlier days, nonwhite patients seeking treatment were turned down, according to Dr. Pierce. "One woman with bad melasma tried to get help and everybody said they couldn't do it," he said. "I used a phenol peel on her with excellent results. That was 35 years ago and she's still living." Dr. Pierce shared his more than 30 years experience with chemical peels at the annual meeting of The Skin of Color Center, St. Luke's-Roosevelt Hospital Center, New York.

Chemical peels offer real advantages over lasers, Dr. Pierce said. "Peel treatment is less painful and patients heal faster," he said. "With lasers, I've seen post-inflammatory hyperpigmentation (PIH), hyperemia, and rhytides that persist for months. My patients balk when I tell them what laser treatments cost, so we had to do something that was as good as or even better than lasers. That's when I turned my back on laser resurfacing and concentrated on chemical peeling. "Chemical peeling is indicated for improving skin texture, fine rhytides, surface laxness, periorbital solar comedones, skin brilliance, PIH, acne, photodamage, acne scars, freckles, and melasma, according to Dr. Pierce. For photodamaged skin, the goal is obtain a thinner, more compact stratum corneum; a thicker acanthotic epidermis with no atopia and a uniform dispersion of melanin; and an increased deposition of new collagen and glycosomial glycan in the dermis.

Types of peels

Dr. Pierce prefers the TCA paste peel, which he has used with success for 0 years on patients of every racial background. "The 11 percent paste is equivalent to 25 percent liquid TCA and the 16 percent paste is equivalent to 40 percent to 45 percent liquid TCA," he said. "For TCA alone, concentration corresponds to the depth of the peel; 25 percent or lower is superficial, 25 percent to 40 percent is medium depth, and above 45 percent is deep. "Jessner's solution--resorcinol, salicylic acid, and lactic acid in 70 percent alcohol--is Dr. Pierce's "workhorse" peel. "Jessner's also has a temporary degreasing effect over the skin," he said. "I use Jessner's before a 35 percent TCA peel to increase efficacy with little risk of complications. "Jessner's solution helps the penetration of TCA and creates a more even peel over the patient's face without the hot spots associated with deeper TCA penetration. The combination peel can be used to treat any type of pigmentary dyschromia of light or dark skin. It improves moderately photodamaged skin, but more severely damaged skin may not respond as well. "Oral vertical rhytides and eyelid wrinkles respond very little to Jessner's-TCA peel," he said. Glycolic acid may be helpful in treating lentigines, sallow complexion, rough skin texture, and extremely fine rhytides, Dr. Pierce said. Although rejuvenation is minimal with glycolic acid, recovery time is short and treatment does not interfere with patients' work or social life. "Fitzpatrick types I to VI generally respond satisfactorily," he said. "Monthly procedures produce visible improvement in four to six months. "Glycolic acid combined with TCA is effective against any type of pigmentary dyschromia, he added. Phenol, a deep red peel solution, reduces oral vertical rhytides on the lips and eyelid wrinkles, Dr. Pierce said. "It's good for treating aging skin associated with photo damaging and dyschromia," he added. Dr. Pierce customizes each area of the face by applying Baker's phenol to the lips and eyelids and Jessner's TCA to the remainder of the face.

Contraindications

Patients with a history of peel sensitivities, seborrheic dermatitis, medications in use, allergies, collagen disease, atopics, autoimmune disease, or eczema should not be treated with chemical peels, Dr. Pierce said. "Relatively speaking, herpes simplex virus activities, radiation, warts, healing wounds, keloids or hypotrophic scars, and cryotherapy are other contraindications," he said. "For both white and nonwhite skin, the biggest problem with chemical peels is PIH," Dr. Pierce said. "Early applications of hydroquinone bleach (4 percent) helps to fade the discoloration. I've seen no permanent scars in our cases, which total nearly 1,000 in the last four years. Also, if a patient has sun-sensitive skin and evidence of actinic keratosis--which is what we see in fair-skinned people--you have to be careful with chemical peels. "Chemical peels work well with people of all races, Dr. Pierce said. "Even phenols, if done judiciously, are effective on nonwhite faces," he said. "Histologically, the changes are comparable in white and nonwhites except for the melanocytes that are either injured or killed."

How to perform peels.

Harold E. Pierce, M.D. described the general procedure he follows when he applies chemical peels to the faces of either white or nonwhite people. Patient preparation Before peeling, Dr. Pierce removes exophytic, actinic, and seborrheic keratoses by curettage, cryosurgery, or electrosurgery. Two to five weeks before the procedure he asks patients to apply sunscreen with SPF (sunscreen protection factor) of 15 or above. "I also prescribe retinoic acid (0.05 percent) nightly as tolerated, hydroxy acid (5 percent to 7 percent) as indicated, and, for bleaching, hydroquinone (4 percent to 8 percent) for Fitzpatrick III to VI type pigmentation or pigmentary dyschromias," he said. Dr. Pierce asks each patient to sign a witnessed consent form before the procedure. On the day of the procedure, patients are unshaven and wear no makeup, cologne, or aftershave. "I give aspirin and continue for the first 24 hours if the patient can tolerate it," Dr. Pierce said. "I tell the patient the treatment will sting and burn temporarily." After degreasing the skin, Dr. Pierce applies TOPICAINÉ® (4 percent, ESBA Laboratories, Jupiter, FL) cream to the site to be peeled. "I do this 15 to 20 minutes to extend the time before the patient experiences discomfort from the chemical," he said. When the patient is ready, Dr. Pierce moistens the face with water and quickly applies the TCA paste peel (11 percent or 16 percent) to the entire face except for the eyelids and lips. "Sometimes we extend down to just below the mandibular line and no further down than the first horizontal crease in the neck," he said. "I apply the paste quickly to avoid gaps (hot spots) in the vertical and horizontal directions, and I use dampened cotton-tipped applicators for the creases in the corners of lips and the crow's feet." To conceal the line between the peeled and nonpeeled areas, Dr. Pierce feathers the paste into the hairline and around the rim of the jaw and brow. For rhytides in the perioral area, he asks his assistant to stretch the lower lips while he applies the paste evenly over the lip skin and vermilion line. The appearance of white "frosting" indicates the reaction is complete. "You are burning the keratin layer in a controlled manner," he said. Dr. Pierce takes care not to leave any part of the skin uncovered by the TCA paste. "If the frosting isn't even you may get hyperpigmentation, the major complication," he said. Dr. Pierce allows the frosting to remain in place for six to 12 minutes, depending on the patient's comfort level. "The patient counts from zero to 10 to help me judge the discomfort level," he said. "When the patient reaches 10, the maximum discomfort, I try to prolong the peel by at least another one to two minutes to get deeper penetration and more desquamation when it starts to peel." When the epidermis appears gray (as shown by sponging three or four areas of the forehead, cheeks, and chin), the end point has been reached, he said. "My assistant may use a fan to blow air on the face to hasten the mask-like effect when the peel dries out." At this stage, the procedure Dr. Pierce's assistant flushes the patient's face with cold water. Within five to seven days, desquamation occurs. "Once they get through that, they think everything is going to be all right," Dr. Pierce said. Chemical peels may be used monthly and patients must follow instructions in the use of home care products, he said. "They comply as long as they see something happening. If you have experience, you can tell by looking at them if they are complying between treatments."

Dr. Pierce has no financial interest in any of the products mentioned in this article.