

Aesthetic Dermatology News™

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Aesthetic Practices Treating More Dark-Skinned Patients

Medical and technological advances have addressed some important concerns

BY JOHN SCHIESZER

Clinicians historically have been wary of performing various aesthetic procedures such as chemical peeling and laser resurfacing in darker-skinned individuals out of concern for the potential side effects, such as post-inflammatory hyperpigmentation. Advances in aesthetic technique and a greater comfort level among clinicians in treating darker skin, however, have given people of color greater opportunity to have appearance-enhancing treatments.



Susan Taylor, M.D.

"We have entered a new era of dermatology in several respects," said Susan Taylor, M.D., assistant clinical professor of dermatology at Columbia University College of Physicians and Surgeons in New York.

"First, clinical trials are including people of color and a diverse subject population has become an FDA requirement for medications as well as devices. Also, the pharmaceutical companies are interested in serving people of color. They are the fastest growing segment of the population and will be in the majority in the year 2040. So, there is a genuine interest in looking at how medications



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and devices may work differently in people of color."

Dr. Taylor helped found the Skin of Color Center at St. Luke's Roosevelt Hospital Center in New York almost a decade ago. Now, similar centers are popping up in cities around the country, including Detroit, Miami, Boston, and Washington D.C., to name a few. Scientific advances have

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Hydradermabrasion Shows Promise for Facial Rejuvenation

The modality, which involves pneumatic application of an antioxidant serum, decreased fine lines, pore size, and hyperpigmentation

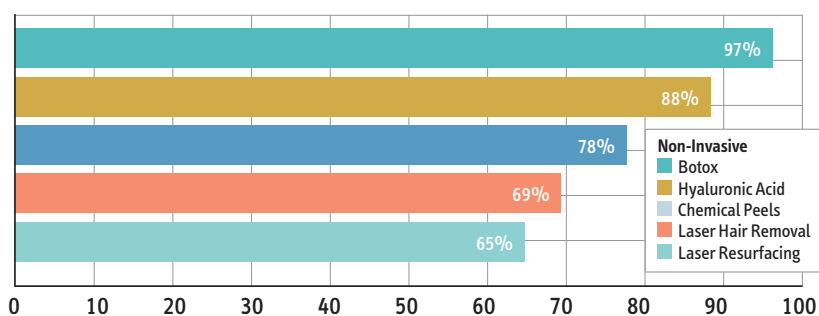
Pneumatic application of a polyphenolic antioxidant serum using hydradermabrasion—a novel modality for nonablative facial rejuvenation—is associated with positive improvements in skin, whereas manual intermittent application of the serum does not, a study suggests.

"Hydradermabrasion, the term coined to describe the procedure that combines crystal-free microdermabrasion using an abrading tip with the pneumatic application of an antioxidant-rich serum, represents another step in the evolution of microdermabrasion therapy," said study investigator Bruce M. Freedman, M.D., Medical Director of Plastic Surgery Associates of Northern Virginia in McLean, Va.

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BY THE NUMBERS: Non-Invasive Procedures Offered

Botox treatment was the non-invasive procedure offered by the largest proportion of cosmetic surgery practices surveyed by the American Academy of Cosmetic Surgery in 2007. Shown here are the five top non-invasive procedures according to the proportion of practices offering them.



Source: 2007 American Academy of Cosmetic Surgery Procedural Statistics. Access online at www.cosmeticsurgery.org

Cellular Grafting Found Effective for Vitiligo in Difficult-To-Treat Sites

Autologous noncultured cellular grafting may be a feasible therapeutic option for vitiligo in anatomic sites considered difficult to treat, a study suggests.

Sanjeev V. Mulekar, M.D., and colleagues at the National Center for Vitiligo and Psoriasis in Riyadh, Saudi Arabia, used noncultured melanocyte-keratinocyte transplantation (MKT) to treat 40 patients (13 male, 27 female) with bilateral vitiligo and nine (four male, five female) with unilateral viti-

ligo. They graded repigmentation as excellent if there was 95 percent to 100 percent repigmentation of the treated area, good if repigmentation was 65 percent to 94 percent, fair if repigmentation with 25 percent to 64 percent, and poor if repigmentation was 0 percent to 24 percent. The following anatomic sites were considered difficult to treat: fingers, toes, palms, elbows,

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NEWS IN BRIEF

Hydradermabrasion Shows Promise

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He randomized 20 female patients aged 34-56 years into two groups. Group A underwent a series of six facial hydradermabrasion treatments with the serum spaced 7-10 days apart. In Group B the same serum was applied manually to the skin for a total of six treatments at 7- to 10-day intervals.

Patients in Group A had an increase in epidermal thickness, papillary dermal thickness, and polyphenolic antioxidant levels, according to a report in the *Journal of Cosmetic Dermatology* (2008;7:275-280). In addition, Dr. Freedman observed replacement of elastotic dermal tissue, collagen hyalinization, and increased fibroblast density. He also observed decreases in fine lines, pore size, and hyperpigmentation following treatment. Patients reported no complications. Patients in Group B had no change in skin structure, antioxidant levels, or clinical skin attributes.

Dr. Freedman explained that preparing the skin with the microdermabrasion element appears to increase skin penetration of the antioxidants, which would explain the findings.

In a companion study, Dr. Freedman showed that application of a topical antioxidant serum enhances the effects of facial microdermabrasion. The study included 10 women aged 38-52 years who underwent six diamond-tip crystal-free microdermabrasion facial treatments spaced 7-10 days apart. A polyphenol-rich antioxidant serum was applied pneumatically to half the face immediately after each microdermabrasion. Compared with skin treated with microdermabrasion alone, the skin treated with microdermabrasion and antioxidant serum showed significantly increased epidermal and papillary dermal thickness and increased fibroblast density, Dr. Freedman reported in the *Journal of Dermatological Treatment* (2008; published online ahead of print). "This combination should strengthen the use of microdermabrasion as a non-invasive facial rejuvenation tool and support the role of topical antioxidants as anti-aging factors," he concluded.

Novel Chemical Peel Works As Well As Glycolic Acid

Capryloyl salicylic acid may even be slightly better for facial rejuvenation, researchers say

Capryloyl salicylic acid (LHA), a novel derivative of salicylic acid, is as effective as glycolic acid (GA) peel in decreasing facial hyperpigmentation and fine lines/wrinkles, data show.

Investigators led by Christian Oresajo, Ph.D., of L'Oréal Research in Clark, N.J., conducted a split-face study of 50 female volunteers aged 35-60 years who had mild to moderate facial hyperpigmentation and fine lines/wrinkles. At biweekly intervals for 12 weeks, subjects had LHA applied to one side of their face and GA to the other. Increasing peel concentrations were applied (5%-10% LHA or 20%-50% GA) based on subjects' tolerance level and clinical observations of a dermatologist. At week 12, patients returned to the dermatologist for a final observation.



Photo illustration: Alena Binova/Oreanline

Of the 44 subjects who completed the study, 41 percent of the LHA-treated and 30 percent of the GA-treated subjects showed significant reduction of fine lines/wrinkles compared with baseline, the researchers reported in the *Journal of Cosmetic Dermatology* (2008;7:259-262). In addition, 46 percent

of LHA-treated and 34 percent of GA-treated subjects had significant reduction of hyperpigmentation. Although LHA appeared to be slightly superior to GA, the differences between the two treatments were not statistically significant. LHA appeared to reduce dryness and scaling better than GA peel.

Imiquimod Cream Once Weekly Improves AK

Local adverse effects reportedly were minimal when patients applied the cream less frequently than is approved

Imiquimod 5% cream applied once weekly for 24 weeks rather than the approved regimen of twice weekly application for 16 weeks effectively treats actinic keratoses (AK) with minimal adverse effects, according to a study.

Joshua A. Zeichner, M.D., and his colleagues at Mount Sinai Medical Center in New York tested this new treatment regimen in 20 patients with at least six AK lesions on the face, head, or scalp. For 24 weeks, subjects applied imiquimod 5% cream to a 20 cm² area on one side of their head and placebo cream to a similar area on the other side. The researchers evaluated patients with a seven-point investigator assessment scale (IAS): -2 (much worse); -1 (slightly worse); 0 (no change); 1 (mild improvement); 2 (moderate improvement); 3 (marked improve-

ment); and 4 (cured). Patients rated skin irritation in the treatment area using a six-point scale: 0 (no irritation); 1 (trace irritation); 2 (mild irritation); 3 (moderate irritation); 4 (marked irritation); and 5 (severe irritation).

Five discontinued the study for reasons other than adverse effects. Of the 15 patients who completed the study, six had marked improvement and one was cured on the imiquimod-treated side, whereas only one patient had

the placebo-treated side.

In addition, the average total lesion number score on the imiquimod-treated side decreased from 1.93 to 1.47; on the placebo side, the average score increased from 2.07 to 2.13. No patient reported skin irritation greater than mild. "Local adverse events, including local skin reactions, were minimal or nonexistent in most patients," the authors noted. The investigators observed no serious or unexpected adverse events.

Regimen may be an option for patients concerned about experiencing local skin reactions.

marked improvement on the placebo-treated side, Dr. Zeichner's group reported in the *Journal of the American Academy of Dermatology* (2009;60:59-62). All patients had some improvement on the imiquimod-treated side whereas six patients had no improvement and seven had slight worsening on the placebo-treated side. The average change in IAS score was +2.20 for the imiquimod-treated side versus -0.27 for

"Once weekly application of imiquimod 5% cream may be an appropriate option for patients concerned about experiencing local skin reactions, especially with respect to cosmetic appearance, on the face or head during treatment," the authors concluded. "This regimen may also serve as an alternative for patients who have not adequately tolerated local skin reactions experienced with more frequent dosing."