Combination Sheds Light on Facial Rejuvenation

BY PATRICE WENDLING

Chicago Bureau

CHICAGO — Add facial rejuvenation to the growing list of indications for topical photodynamic therapy.

Short-contact, broad-area application of 20% 5-aminolevulinic acid and photodynamic therapy (ALA-PDT) can enhance or improve all parameters of facial rejuvenation—skin tone, texture, fine wrinkles, telangiectasis, and pore size, Kevin Pinski, M.D., said at the American Academy of Dermatology's Academy 2005 meeting.

There's little pain or downtime associated with the combination therapy, and it

Application of 20% ALA-PDT can enhance or improve all parameters of facial rejuvenation—skin tone, texture, fine wrinkles, and telangiectasis.

appears to shorten the number of intense pulsed light (IPL) treatments needed to achieve results.

The only approved indication for ALA-PDT is nonhyperkeratotic actinic keratoses on the face and scalp,

requiring 14- to 18-hour drug incubation and blue-light therapy.

Investigators have experimented with shorter drug incubation periods and found no difference in efficacy in actinic keratosis with as little as 1 hour incubation, said Dr. Pinski of Northwestern University in Chicago.

New vascular lasers and IPL devices have also virtually eliminated the pain previously associated with the therapy.

Now ALA-PDT is being used off label in a variety of indications from basal and squamous cell carcinoma to Bowen's disease, acne vulgaris, hidradenitis suppurativa, and port-wine stains.

Split-face comparison trials in facial rejuvenation have been done for the first time, and they demonstrated that clinical improvement scores were higher on the sides treated with combination ALA-IPL, compared with areas treated with IPL alone (J. Drugs Dermatol. 2005;4:35-8). Mild edema, erythema, and desquamation were reported with the use of combination therapy.

The most recent study (J. Cosmet. Laser Ther. 2005;7:21-4) showed that ALA-IPL

VERBATIM

'One patient was so ashamed to go outside because of his pale skin that he would get drunk before going out and tanning.'

Dr. Michelle Conroy, on compulsive tanning behavior caused by body dysmorphic disorder, p. 44

increased the production of type I collagen, compared with IPL monotherapy.

Dr. Pinski prepares patients for facial rejuvenation with an acetone scrub to increase the penetration of the ALA (Levulan Kerastick, DUSA Pharmaceuticals Inc.) before exposure with an N-Lite laser. Levulan comes in two glass ampules that must be mixed thoroughly for 2-3 minutes or results will be inconsistent, he said.

Levulan should incubate on the skin for a minimum of 1 hour for facial rejuvena-

tion and actinic keratoses, and for up to 1 hour for acne vulgaris.

It's imperative that patients avoid sun exposure for 72 hours post treatment to avoid a phototoxic reaction, he said. Iron chelating agents are being developed that may reduce this potential reaction.

Finally, mounting evidence from animal models suggests that ALA-PDT could be used for skin cancer prevention, he said.

Data from hairless mice models suggest that protoporphyrin IX, an effective pho-

tosensitizer that is converted from 5-ALA, is activated by visible light, and that highly carcinogenic ultraviolet radiation may be filtered out by blue-light therapy.

"Hypothetically, we could treat large surface areas in patients that are at risk of developing skin cancer, such as our renal transplant cases, and thereby prevent them from developing actinic keratoses and squamous cell carcinomas," he said.

Dr. Pinski reported that he has no relevant conflicts of interest.

