Fair-Haired Challenge

Melanin-containing topical increases pigment of lightly colored hair

BY CHERYL GUJTINAN

Chicago — Early results from a pilot study suggest pretreatment with a topical melanin-containing solution might allow effective laser-assisted removal of non- or lightly pigmented hair, Elizabeth A. Tanzi, M.D., said at the annual meeting of the American Society for Dermatologic Surgery.

The trial, conducted at the Washington Institute of Dermatologic Laser Surgery, Washington, where Dr. Tanzi is an associate of director Tim Alster, M.D., included 10 patients who underwent laser-assisted hair removal of white, blonde, or non-pigmented vellus facial hairs after completing a two-week course of application of the melanin solution. Two matched sites on the sides of the face in each subject were randomly assigned to treatment with a long-pulse, 755nm alexandrite laser (GentleLase) or a long-pulse, 1064nm Nd:YAG laser (CoolGlide). Each photoepilation procedure was performed three times at monthly intervals, and use of the melanin-containing solution and the laser treatments were tolerated very well.

Dr. Tanzi reported that patients have completed a one-month follow-up visit after completing the three laser treatments. Vellus hair counts at that time showed a mean 54 percent reduction from baseline. She achieved in facial regions treated with the alexandrite laser, while hair count was reduced by an average of 49 percent following Nd:YAG laser treatment. “We all know that effective laser-assisted hair removal of white, blonde, or lightly pigmented hair remains a challenge despite recent advances in laser technology,” Dr. Tanzi said. “These findings are encouraging, and experience in European clinical trials suggests this product has been even better. However, our data are from a pilot study, and the results are preliminary as we are continuing to follow these patients at three and six months. Therefore, we feel at this point there are many more questions than answers about the role of the melanin-containing product, and we are being cautious in not being overly enthusiastic about its potential efficacy until the results are confirmed with longer follow-up in multiple studies.”

The topical product tested contains natural melanin encased within liposomes and formulated in a phosphatidylcholines-based solution that is odorless and colorless. For this study, the patients were instructed to apply the solution twice daily — once in the morning and once at night — beginning two weeks prior to the first scheduled laser treatment. However, each application involved a series of four spray-dry cycles where the subject sprayed the liquid onto the face and allowed it to dry, repeating that sequence three times, and waiting at least one hour before washing or swimming.

Although there were no local skin reactions associated with use of the melanin product, many patients objected to the application regimen. Dr. Tanzi said.

Melanin Matters

“Patient compliance may be a very relevant issue affecting the efficacy of this product,” she said. “Further investigation is warranted to determine the best treatment protocol for achieving the greatest and most long-lasting hair reduction, including assessment of whether extending the pre-laser treatment course beyond two weeks might improve the outcomes.”

The 10 patients enrolled in the trial had a mean age of 44.5 years and all had skin phototypes I or II. Parameters for treatment with the 755nm alexandrite laser were an 18mm spot size, 20 J/cm2 fluence, and a 3ms pulse duration. The Nd:YAG laser treatment was performed with a 10mm spot size, fluence of 60 J/cm2, and a 10ms pulse duration.

Meladine is a product of Creative Technologies Inc., Chesapeake, Va., and was provided by the manufacturer at no cost for use in the study. The GentleLase laser was also provided by its manufacturer, Candela, for use during the study. The CoolGlide laser is a product of Altus Medical.

Dr. Tanzi has no financial interest in any of the companies.