The patients were treated using the Aurora AC device (Syneron Inc., Richmond Hill, Ont.). Those with Fitzpatrick skin types IV were treated with pulsed light of 8-10 J/cm², and those with types V-VI were treated with pulsed light of 6-8 J/cm². A concentration of 15-20 J/cm² was used in all patients. The combined use of optical energy and conducted bipolar radiofrequency current has a direct effect on Propionibacterium acne by photochemical activation of porphyrins, and by selective hyperthermia of the sebaceous glands. The radiofrequency energy supplements the optical energy and raises the temperature of the sebaceous glands, severely damaging the bacteria, Dr. Sadick explained.

The technology is effective and safe for the typically young patients who present with acne vulgaris, but it is not a cure, he said. The effects are temporary and provide about a 3- to 4-month disease-free interval when the device is used as the sole acne treatment modality. The mechanisms of action of this technology need to be further defined, and the optimal treatment settings and number need to be determined. Additional study of the use of this technology along with other treatment modalities is also warranted, Dr. Sadick concluded. Dr. Sadick is a research consultant for Syneron Inc.

Henna Tattoos Can Trigger Allergy to Hair Dye Later On

BY JANE SALODOF MacNEIL
Southwest Bureau

KAPALUA, HAWAII — Para-
phenylenediamine, a chemical found in permanent hair and fur dyes and temporary henna tattoos, has been chosen as the American Contact Dermatitis Society’s 2006 Allergen of the Year.

"All these little kids who become al-
egger to their henna tattoos will not be able to dye their hair permanently again," Dr. David E. Cohen said at the Winter Clinical Dermatology Conference, Hawaii, where he announced the selection.

Dr. Cohen, director of al-
egger, occupa-
tional, and en-
vironmental dermatology at New York Uni-
viersity School of Medicine, said the dubi-
ous honor is de-
gined to draw attention to allergens that are very common and/or under-
recognized and merit more attention because they are causing significant contact dermatitis.

As the society’s presentation on paraphenylenediamine has not yet been published, he gave his views on why physicians need to be more aware of its effects.

Paraphenylenediamine is well known as an allergen that can provoke reactions to permanent hair dyes, ac-
cording to Dr. Cohen. The heightened sensitivity brought on by its use in temporary henna tattoos is a newer phenomenon.

Distinguishing ceremonial tattoos from the darker temporary products sold in this country, he said henna is safe as used in India and other tradi-
tional societies.

"Those [ceremonial tattoos] are pure henna tattoos, but the black hen-
na tattoos are compounded with paraphenylenediamine to get the darker color and to get more en-
durance," he explained in an interview at the meeting, which was sponsored by the Center for Bio-Medical Com-
munications Inc.

As a result the ceremonial tattoos can contain higher concentrations of paraphenylenediamine than the larger quantity used in hair dye, according to Dr. Cohen.

This exposure can in turn lead to a lifelong allergy, he said, reporting that recent research has shown that con-
centration of the sensitizing agent is more important than the overall dose in triggering sensitization.

"If you introduce higher concentra-
tions of paraphenylenediamine into these small locations, you are going to increase the initial sensitization,” he said.

Practitioners have long been con-
cerned about paraphenylenediamine, he said. Finding an alternative product is difficult when allergic pa-
tients want to color their hair, which many do.

He cited a recent British study that found 18% of men and 75% of women had dyed their hair at some point dur-
ing their lives. The median age of first hair dye was 16 years, with a range of 1-80 years. One in 20 people who dyed their hair had an adverse reaction. Of these, only 15% sought help from a dermatologist (Br. J. Dermatol. 2005;153:132-5).

Typically, packages of permanent dyes include a sensitivity test that purchasers can use at home if they are concerned about an aller-
gic reaction. Dr. Cohen recom-
mended that people be encouraged to try these tests before using a product that contains para-
phenylenediamine.

It is almost as good as doing our patch test,” he said. "They will learn quickly if they are allergic to it.

In addition, Dr. Cohen urged physi-
cians to be familiar with previous Al-
eggeren of the Year, of which he noted the following:

2005: Corticosteroids.
2003: Bacitracin.
2001: Gold.
2000: Disperse Blue 1.
1999: Cocamine/TPA.
1998: Kathon CG.
1997: Chlorhexidine.
1996: Thiuram/Cystinothiol.
1993: Cobalt/Chromate.
1990: Monomethylamine.
1989: Butylated hydroxytoluene.
1988: DMDM hydantoin.
1987: Perfumes.
1986: Monobenzyl ether of hydroxypropylresorcinol.
1985: TiO₂.
1984: Thiols.
1983: Copper.
1980: Dehydroabietic acid.
1979: 2-Bromo-2-nitropropane/3-chloro-2-butanone.
1978: Imidazolidinylurea.
1977: Formaldehyde.
1976: Benzyl benzoate.
1975: Wintergreen.
1974: PABA.
1973: Parahydroxybenzoic acid.
1972: Glutathione.
1971: Citral.
1970: Propylene glycol.