# Shrink-Wrapped Lice May Have Met Their Match

BY BETSY BATES
*Los Angeles Bureau*

SANTA BARBARA, CALIF. — A suffocation-based pediculicide developed by a dermatologist in his office may offer hope for regaining control over head lice, the bane of elementary school moms and the physicians they hound for a cure.

That was the word at the annual meeting of the California Society of Dermatology and Dermatologic Surgery, where Alfred T. Lane, M.D., professor of dermatology and pediatrics at Stanford (Calif.) University, expressed great hope that Nuvo lotion will someday come to the marketplace.

Dr. Lane highlighted the formula, a dryon, suffocation-based, pediculicide (DSP) as a possible "new vista in pediatric dermatology," in keeping with the theme of his talk.

He explained that Nuvo lotion was developed in the Palo Alto, Calif., dermatology practice of Dale L. Pearlman, M.D., to take advantage of the physiology of the common head louse, which can hold its breath long enough to outlive physical blocking agents such as mayonnaise or petrolatum.

Dr. Pearlman created a formula out of nontoxic ingredients (stearyl alcohol, propylene glycol, sodium lauryl sulfate, cetyl alcohol, and water, among others) that basically "shrink-wraps" lice when it dries on the hair, completely blocking their breathing holes, or spiracles.

The lotion is applied at home and dried on the hair with a hair dryer. It is invisible and should be left on the hair for at least 8 hours.

After three applications at 1-week intervals, Dr. Pearlman achieved a 96% cure rate and a remission rate of 94% in 133 patients enrolled in two office-based clinical trials. He published what Dr. Lane called "excellent, excellent data" last year (Pediatrics 2004;114:e275-9).

Removal of nits with a comb was not found to statistically improve the effectiveness of the treatment.

Dr. Lane pointed out that the protocol established by Dr. Pearlman did not require exhaustive household cleaning, but rather, simple washing of clothes, spinning of bed linens in the dryer, and running combs and brushes through the dishwasher.

Currently, Dr. Pearlman is attempting to find a pharmaceutical company to sponsor the formula; in the meantime, his Web site, http://nuvoforheadlice.com, explains that it can only be prescribed by him as part of his research protocol in Palo Alto.

Dr. Pearlman's article disclosed his financial interest in the product as its inventor; Dr. Lane has no financial ties to the product. ■



# Combing Beats Insecticides for Lice, Study Shows

Combing wet hair with conditioner and a fine-tooth comb is four times more effective at curing pediculosis than water-based, over-the-counter pediculicide shampoos, Nigel Hill, Ph.D., and colleagues reported.

The study contradicts others that have found pediculicides more effective than wet combing—possibly because the lice examined in the new study appeared to have developed resistance to permethrin, one of the most common active ingredients in the shampoos, said Dr. Hill, head science officer of the London School of Hygiene and Tropical Medicine, and his associates (BMJ 2005;331:384-7).

The researchers randomized 133 children aged 2-15 years with head lice to either the "Bug Buster" wet-combing kit or to a water-based, over-the-counter pediculicide containing either malathion or permethrin.

The Bug Buster kit, developed by the United Kingdom charity organization Community Hygiene Concern, includes a fine-tooth comb and conditioner. Treatment consists of four sequential combings of wet, conditioned hair with 3 days between each combing. The cure rates were 17% for malathion shampoo, 10% for permethrin, and 57% for the Bug Buster kit.

Several factors could account for the difference, the investigators said. The most recent Bug Buster kit has an improved comb. Also, only one dose of the pediculicide shampoo was used, while many physicians tell their patients to use two doses.

**—Michele G. Sullivan**

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