

Exotic Tinea Capitis Cases May Signal a Shift

ARTICLES BY BRUCE JANCIN

MAUI, HAWAII — The largest known U.S. outbreak of tinea capitis due to *Trichophyton soudanense* and *T. violaceum* in several decades raises the possibility that the epidemiology of this common fungal disease may once again be on the move.

The cluster of cases is occurring in Baltimore, largely in zip codes that have seen an influx of immigrants from African countries where *T. violaceum* and *T. soudanense* are



common causes of tinea capitis, Dr. Bernard A. Cohen said at the annual Hawaii dermatology seminar sponsored by Skin Disease Education Foundation.

During 2000-2002, these two organisms accounted for just 0.13% of all dermatophytes isolated by the Johns Hopkins Hospital mycology laboratory. However, the case count rose such that *T. soudanense* and *T. violaceum* accounted for nearly 4% of dermatophytes isolated by the lab during the first half of 2006. *T. soudanense* was second, albeit a distant second, only to *T. tonsurans* among dermatophytes isolated from the hair and scalp, according to Dr. Cohen, director of pediatric dermatology at the Johns

Hopkins Children's Center, Baltimore.

"This persists in our community today. It just shows that these organisms can travel anywhere around the world. This may be a public health issue, not just in our community but in your community as well," he said.

In contrast to the treatment failure rate reported in U.S. patients with tinea capitis caused by *T. tonsurans*, all of the Baltimore children with tinea capitis due to *T. soudanense* or *T. violaceum* for whom follow-up information was available were cured with 6-8 weeks of griseofulvin treatment at doses of 10-20 mg/kg per day.

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DR. COHEN

Fourteen patients were from East or West Africa. Eleven had been in the United States for 2 years or less.

Dr. Cohen noted that the epidemiology of tinea capitis in the United States has undergone major shifts in the last century. In the late 1800s, and first half of the 20th century, the predominant species causing the infection was *Microsporum audouinii*. Today in Baltimore, *T. tonsurans* is the cause of roughly 98% of cases of tinea capitis in African American school-age children.

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CDC: Slightly More Adults Seek Skin Screening Than in 2000

SAN FRANCISCO — The prevalence of skin cancer screening among U.S. adults inched higher during the first half of this decade, according to the Centers for Disease Control and Prevention.

In 2000, one in seven adults said they had ever undergone a head-to-toe skin exam by a dermatologist or other physician. By 2005, this figure rose to one in six, Naheed A. Lakhani reported at the annual meeting of the American Academy of Dermatology.

Skin cancer screening appropriately was more common among groups at greater risk, including whites, individuals over age 50 years, and those with a personal or family history of skin cancer, noted Ms. Lakhani of the Coordinating Office for Global Health at the CDC.

She presented an analysis of data from the National Health Interview Survey conducted in 2000 and 2005. Each survey embraced a nationally representative sample composed of roughly 30,000 civilian noninstitutionalized adults.

In 2000, 15% of U.S. adults reported ever having had a total body skin screening exam given by a physician. By 2005, this figure had reached 17%. The preva-

lence of skin cancer screening was 16% among men and significantly higher at 18% in women.

Skin cancer screening prevalence was highest, at 69%, among individuals with a personal history of any form of skin cancer. People with a family history of melanoma were more than 2.4-fold more likely to have ever had a physician-administered total body skin exam, compared with individuals without such a history. Those with a family history of nonmelanoma skin cancer were 1.76-fold more likely to have undergone a screening exam.

Nearly one in five white adults reported ever having been screened for skin cancer. Screening prevalence rose with adults' education level, physical activity, number of sunburns in the past year, sun sensitivity, and frequency of using sunscreen and/or sun-protective clothing, she continued.

Earlier this year, in a move criticized by many dermatologists, the U.S. Preventive Services Task Force concluded that insufficient evidence exists to recommend for or against routine skin cancer screening. ■

Patch Test Reveals Causes of Pediatric Contact Dermatitis

MAUI, HAWAII — The first two multicenter studies of patch testing conducted in American children have established that the same ubiquitous allergens responsible for most allergic contact dermatitis in U.S. adults are similarly prevalent and clinically relevant in the pediatric population.

The two studies demonstrated that comprehensive patch testing in children using the same allergen concentrations as in adults is both safe and efficacious, Dr. Sharon E. Jacob said at the annual Hawaii dermatology seminar sponsored by Skin Disease Education Foundation.

One study was conducted by the North American Contact Dermatitis Group (NACDG). It involved 391 children—including 144 younger than 13 years old—and 9,670 adults with



recalcitrant dermatitis who were patch tested using all or part of the 65-antigen NACDG screening series. Fifty-one percent of the children and 54% of adults proved to have at least one positive patch test deemed clinically relevant, meaning that the offending allergen caused the patient's symptoms (Arch. Dermatol. 2008;144:1329-36).

Dr. Jacob was the lead investigator in the other study, in which 65 children (aged 1-18 years) with recalcitrant dermatitis were patch tested. Of the children, 50 (77%) had one or more positive patch tests considered clinically relevant (Pediatr. Dermatol. 2008;25:520-7).

Both studies were retrospective and involved referral populations.

Many of the top causes of pediatric ACD internationally proved to be the same allergens that came to the fore in the two U.S. studies, noted Dr. Jacob, a pediatric dermatologist at the University of California, San Diego.

For example, nickel was the No. 1 cause of pediatric ACD internationally. It was also the top cause in Dr. Jacob's study, where it accounted for 18% of cases, and in the NACDG study, in which 26% of children were found to have ACD due to nickel. Thimerosal was No. 4 internationally, No. 2 in Dr. Jacob's study, and No. 3 in the NACDG study. Balsam of Peru (*Myroxylon pereirae*) was No. 5

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DR. JACOB

abroad, No. 3 in Dr. Jacob's study, and No. 7 in the NACDG series.

Dr. Jacob has synthesized the key findings of the two U.S. studies to compile a list of the top pediatric ACD allergens in the United States. (See box.)

She urged her colleagues to consider patch testing all children with recalcitrant dermatitis that clears only with superpotent topical or oral corticosteroids. Dermatitis on the hands or eyelids is particularly suggestive of ACD. The testing often yields a big clinical payoff.

"Children with clinically relevant patch test results show significant improvement with allergen avoidance," Dr. Jacob said.

Dr. Jacob disclosed that she is on the speakers bureaus for Astellas Pharma, Inc. and Coria Laboratories, and has received research grants from Allerderm.

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Top Contact Allergens in U.S. Children

- **Nickel and cobalt.** These two allergens are listed jointly because they're mined together in iron ore and often cosensitize. Nickel, named the American Contact Dermatitis Society's "Allergen of the Year" for 2008, will be the target of a planned major U.S. initiative to reduce environmental nickel release.
- **Nickel** is found in many metal objects, including jeans snaps, zippers and orthodontic braces. Chocolate is the top food source.
- **Neomycin.** The No. 2 contact allergen in U.S. adults for the last 30 years, this antibiotic is also a cause of ACD in kids.
- **Balsam of Peru and fragrance mix.** This combination contact allergen is widely utilized to impart flavors in food products as well as for scent.
- **Formaldehyde and quaternium-15.** A common preservative, formaldehyde is a major cause of

systemic allergic reactions.

► **Potassium dichromate.** Cement, leather, and watch straps are often implicated in pediatric ACD.

► **Colophony.** This allergen often is present in adhesives and cosmetics.

► **Lanolin.** This alcohol extraction of sheep sebum is used as an emulsifier and emollient. It is found in cosmetics, creams, and leather.

► **Carbamates.** Commonly causing ACD, carbamates are used as accelerators in rubber.

► **Para-phenylenediamine.** Watch out for this in temporary tattoos.

► **Sorbitan sesquioleate.** An emulsifier increasingly used to enhance penetration of topical medications, including corticosteroids. It's also present in many diaper balms.

► **Disperse dyes.** These are found in clothing and diapers.

Source: Dr. Jacob