

Topical Steroids Underused in Atopic Dermatitis

BY KERRI WACHTER
Senior Writer

Topical corticosteroids, a first-line therapy for atopic dermatitis, appear to be poorly prescribed for pediatric patients, based on an analysis of data from two national databases of patient visits.

Fewer than a third of the estimated 7.4 million physician visits for AD by pediatric patients between 1997 and 2004 involved a prescription for topical corticosteroids, reported Dr. Kimberly A. Horii of the dermatology section at Children's Mercy Hospitals and Clinics in Kansas City, Mo., and her colleagues.

"Topical corticosteroids are accepted first-line anti-inflammatory agents to treat flares of AD," the researchers wrote. Surprisingly, fewer than one-third of all pediatric [AD] visits and fewer than one in four

visits for AD or patients who were younger than 2 years were treated with topical corticosteroids in this cohort, they noted (Pediatrics 2007;120:e527-e34 [Epub doi:10.1542/peds.2007-0289]).

From 1997 to 2000, there were 2.8 million outpatient pediatric visits for AD; 34% of these involved the prescription of topical corticosteroids. From 2001 to 2004, there were 4.6 million AD visits, of which 25% involved the prescription of topical corticosteroids, although the decline was not significant. The researchers suggested that steroid phobia of parents or physicians may limit steroid use. "Misunderstandings about the use and adverse effects of topical corticosteroids... may also contribute significantly to the undertreatment of pediatric AD," the researchers wrote.

They used data on outpatient encounters by patients aged 18 years or younger compiled from the National Ambulatory

Medical Care Survey (NAMCS) and the National Hospital Ambulatory Medical Care Survey (NHAMCS) databases between 1997 and 2004.

There were about 620,000 annual AD visits in 1997, and the number peaked at 1.7 million in 2003. The increase in AD visits per year was statistically significant. By 2004, the number had declined to 850,000.

"Although this peak in 2003 may be an anomaly, a potential explanation for this finding may be related to the introduction of the topical calcineurin inhibitors in 2000 and 2001," the researchers wrote. "With increased public knowledge of topical calcineurin inhibitors, parents who had previously not seen a physician for their child's AD may have potentially sought this novel treatment."

However, they noted that there was an insufficient number of records in the database to allow a statistical analysis of this trend.

Between 1997 and 2000, 14% of AD visits involved the prescription of antihistamines, which increased to 21% from 2001-2004. The increase was not statistically significant. Topical tacrolimus (Protopic) and pimecrolimus (Elidel) were prescribed in 10% and 13% of AD visits between 2001 and 2004. Between 1997 and 2004, oral corticosteroids were prescribed in 17% of the 6.7 million AD visits (excluding those involving asthma). It was possible for more than one drug to be prescribed per visit.

The researchers also looked specifically at children younger than 2 years. Between

1997 and 2000, there were 0.7 million AD visits for this age group; there were 1.3 million between 2001 and 2004. Of these visits, 21% and 24%, respectively, involved the prescription of topical corticosteroids.

Interestingly, in the same age group, 8% and 7% of AD visits between 2001 and 2004 involved prescriptions of tacrolimus or pimecrolimus, respectively. "In this study, we found similar rates of use of topical corticosteroids and topical calcineurin inhibitors in patients who were younger than 2 years (24% vs. 22%)," the researchers said. Calcineurin inhibitors are indicated for the short-term or intermittent treatment of mild to moderate AD (topical pimecrolimus) or moderate to severe AD (topical tacrolimus) in patients older than 2 years.

The demographics of pediatric AD visits were similar to all pediatric visits, with the exception of race and age. Of all pediatric visits, 69% were made to a generalist, compared with 43% of pediatric AD visits, and 22% of all pediatric visits were made by children aged 2-5 years.

Black and Asian children were seen more frequently for the diagnosis of AD. Black children and adolescents accounted for 19% of AD visits and Asian children and adolescents accounted for 11%. In contrast, black children and adolescents accounted for 12% of all visits and Asian children and adolescents accounted for 4%. A total of 69% of all pediatric visits were by white patients, compared with only 51% of pediatric AD visits.

Prescribing Trends in Children With Atopic Dermatitis

| | 1997-2000 | 2001-2004 |
|--------------------------------|-----------|-----------|
| Topical corticosteroids | 34% | 25% |
| Antihistamines | 14% | 21% |
| Topical calcineurin inhibitors | | |
| Tacrolimus (Protopic) | ---- | 10% |
| Pimecrolimus (Elidel) | ---- | 13% |

Note: Based on data for patients aged 18 years or younger from the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey.
Source: Pediatrics

ELSEVIER GLOBAL MEDICAL NEWS

Think 'Four P's' When Making Allergic Contact Diagnosis

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Allergic contact dermatitis looks like other forms of dermatitis, but the history and some visual clues can help make the diagnosis, Dr. Anna L. Bruckner said at a meeting sponsored by Skin Disease Education Foundation.

A history of exposure to common contact allergens, such as a recent run-in with poison ivy, poison oak, or poison sumac, may be all that is needed. A history of contact with other common allergens provides support for suspicions of allergic contact dermatitis. These allergens include nickel and topical antibiotics such as neomycin, gentamicin, and bacitracin.

In addition, said Dr. Bruckner of the pediatric dermatology clinic at Lucile Packard Children's Hospital in Palo Alto, Calif., the following "four P's" point to allergic contact dermatitis in children:

► **Persistence.** A rash that "doesn't respond to therapy like you would expect"—coming back time and again in the same place despite treatment with topical steroids—may be an allergic contact dermatitis, she said.

An allergic contact dermatitis begins 12-24 hours after exposure to the allergen, peaks at 3-5 days, and may last 3-4 weeks if untreated.

► **Place.** A rash that is localized to an area not considered a typical location for dermatitis should raise suspicion, especially if an area where contact with a suspected allergen could be imagined.

Allergic contact dermatitis on a child's face or eyelids is caused most commonly by neomycin; fragrances; preservatives in creams, soaps or shampoos; or thimerosal in eye-drops. Nickel (in jewelry or jeans fasteners) is the most common cause of allergic contact dermatitis in the in-

fraumbilical area and on the earlobes, neck, and wrists.

Compounds used in rubber production can produce allergic responses in the waistband area or on the dorsum of the feet, where leather also is a suspect because of an agent used in leather tanning. In the axillae, preservatives or fragrances in deodorant may cause allergic dermatitis.

► **Pattern.** Think of allergic contact dermatitis when there is a distinct pattern of eruption that is unusual for dermatitis, such as a linear rash. Dermatitis that is localized to the face, or that appears symmetrically on earlobes or on the dorsum of the hands or feet, may be a tip-off to allergic contact dermatitis.

Dr. Bruckner described a 7-year-old patient with a several-year history of a ring-shaped eruption on the posterior thighs and upper buttocks, which is "an area that we don't typically think about with atopic dermatitis." The rash cleared repeatedly with topical steroids but always returned, except for a rash-free summer he spent in India. This was toilet-seat dermatitis, a relatively common reaction to wood toilet seats that is caused by either the lacquer in the seat or the resin in the wood itself.

► **Patch testing.** If the etiology isn't apparent, epicutaneous patch testing may help determine whether allergic contact dermatitis is the culprit.

Besides nickel, preservatives, fragrances, rubber products, and leather, other common contact allergens include topical antibiotics (neomycin, bacitracin, and gentamicin); lanolin used in cosmetics; disperse dyes used to color the elastic waistbands of disposable diapers; and *p*-phenylenediamine (a component of hair dye, temporary tattoos, and hennalike products).

Allergic contact dermatitis may account for up to 20% of all cases of childhood dermatitis, al-

though the exact incidence and prevalence are unknown. It can occur at all ages but is relatively uncommon in younger children; the prevalence increases as children age and have more exposures to potential allergens, she said.

Studies of asymptomatic children suggest that up to 25% are sensitized to one of several common contact allergens. Among children with dermatitis, up to 60% will have positive patch test reactions, studies suggest, but "whether or not those are clinically relevant is unclear," Dr. Bruckner noted.

Topical corticosteroids are the mainstay of treatment, but systemic steroids may be needed if the rash covers more than 10% of skin surface. With either option, treating for a full 2-3 weeks is important to avoid rebound dermatitis.

SDEF and this news organization are wholly owned subsidiaries of Elsevier.



A ring-shaped pattern on the posterior thighs and buttocks is consistent with allergic reaction to a wooden toilet seat.

COURTESY DR. ANNA L. BRUCKNER