

Combat Recurrent Staph With Patient Education

Parents should check their children closely, because infections are often in places covered by clothing.

BY TIMOTHY F. KIRN
Sacramento Bureau

ASPEN, COLO. — Can patients with repeated *Staphylococcus aureus* infections be decolonized to prevent recurrences?

The evidence supporting this approach is not very good, but it is always worth a try, Dr. Sarah K. Parker said at a meeting on pediatric infectious diseases sponsored by the Children's Hospital, Denver.

Community-acquired staphylococcal infections are on the rise, even in normal, healthy children. Now, many of the organisms seen in the community—as well as in the hospital—are methicillin resistant, said Dr. Parker, of the pediatric infectious diseases department at the hospital.

She said that two or three times a week, she sees a child with a small, pustular lesion (often on the buttocks) that the child's primary-care physician has called a bug bite, but which turns out to be a *S. aureus* infection.

That's a common misdiagnosis of these infections. It is one that has been noted by other infectious disease specialists and that illustrates not just how common the misdiagnosis has become, but also how common the infections are, Dr. Parker said.

Some individuals have recurrences that may be the result of incomplete treatment, but it also seems that some just may be prone to repeated infections.

The Cochrane Collaboration recently reviewed evidence on methods for decolonizing patients with antibiotic treatment, Dr. Parker noted. It concluded that the practice of treating patients prophylactically with antibiotics or mupirocin to reduce nasal carriage of *S. aureus* is not supported by enough good evidence.

The exception may be for the use of mupirocin, which has been the subject of various studies. In general, that research shows that, if patients are treated twice daily for 5-7 days, then 85% of them will be culture negative at about 14 days. However, 25% of those will be recolonized by

30 days, and 50%-70% will be recolonized by 6 months, Dr. Parker said.

In addition, about 60% of individuals with staphylococcus in the nares also are colonized at other sites, and 20% of those colonized in sites other than the nose are not colonized in the nose.

One placebo-controlled study that used mupirocin in 32 normal individuals with recurrent infections for 5 days each month for 12 months reported that infections were reduced by about 50%, but not totally (Arch. Int. Med. 1996;65:109-13).

In addition, in that study and others, resistance developed. Therefore, given the questionable efficacy that prophylactic mupirocin treatment is likely to have and the resistance, Dr. Parker said she focuses on education for patients and families that have recurrent infections and resorts to a single, twice-daily course of mupirocin for 5 days only on occasion in those who have already been educated.

Included in her education measures are suggestions that:

- ▶ Parents inspect the child carefully and often, because frequently the sites of infections are in places on the body that are covered by clothing.

- ▶ Nails be kept clean and short to prevent scratches.

- ▶ Bathing with an antimicrobial soap, such as hexachlorophene or chlorhexidine, can be 20%-50% effective at decolonizing extranasal sites in the short term.

- ▶ Towels and underwear be changed and washed often.

Some recommend that patients could bathe with bleach in the water, about 1 tablespoon per gallon, which is not much more than is found in a chlorinated swimming pool.

For the physicians who see these infections, surgical treatment is most important. "Incise these lesions and drain them very early ... as soon as you see a little head, get this thing open," Dr. Parker said. "Scrub it, clean it, and even use a topical antistaph [treatment] on it." ■

Warn Patients: Don't Gloss Over The Downside of Cosmetic Nails

BY BETSY BATES
Los Angeles Bureau

PORTLAND, ORE. — Cosmetic nails are here to stay, so physicians would do well to learn about the glittery accessories driving a \$6.8 billion a year industry, Dr. Phoebe Rich said at the Pacific Northwest Dermatological annual scientific conference.

"Nail cosmetics are not inherently dangerous," the Portland, Ore.-based dermatologist stressed.

"They're used by millions of women who really don't have any trouble at all with them." However, when trouble does brew beneath the bright, rock-hard surfaces of acrylic nails, it can be nasty.

Dr. Rich offered these tips on nail cosmetics complications:

- ▶ **Allergic reactions.**

Many allergens are involved in the process of creating artificial nails, but the site of the reaction will often reveal the source of the problem, she said.

Patients whose itching and burning is centered in the periungual and subungual regions probably have an acrylic allergy. "This material polymerizes very quickly, in less than a minute," she said.

The allergen is basically trapped at the site where it is applied.

Enamel nail polish, on the other hand, may continue to induce dermatitis until the substance fully dries, which may take up to 48 hours. You may see reactions anywhere the patient's fingers touched: on the face, neck, or eyelids, for example.

Dr. Rich noted that a host of sensitizing agents are available in nail products that can be purchased at the local drugstore, not just in professional salons. An example is formaldehyde, an ingredient in Nail Magic, a nail hardening product that is not supposed to come in contact with the skin, but does, of course.

Many upscale nail salons are replacing highly allergenic materials with more expensive, less durable alternatives in re-

sponse to customer allergies, she said.

- ▶ **Irritant reactions.** Nail polish remover containing acetone or acetate is the No. 1 culprit in drying out the nails, causing brittleness, fragility, onycholysis, paronychia, and friable keratin granulations.

There is a new alternative available over the Internet for sensitive patients: a water-based nail enamel that avoids the need for nail polish remover, since it peels off the nails or can be taken off using ethyl alcohol.

The opaque nail colors used on cosmetic nails can hide all manner of problems, from 'red-hot staph infections' to onychomycosis 'teeming with yeast.'

The nail colors sold at www.naturellacosmetics.com do not have the telltale solvent odor that makes most nail polishes so pungent.

- ▶ **Trauma.** "Women who are the most successful at using acrylic nails keep them short," Dr. Rich explained.

"A long nail acts as a lever," prying the rigid artificial nail off the nail bed, just as it did when one of

Dr. Rich's patients caught her nail in the hinge of a lawn chair.

A natural nail, by contrast, is flexible, and would bend or break in such a scenario.

- ▶ **Infection.** The vivid, nearly impenetrable nail colors painted on cosmetic nails can hide all manner of infections, from "red-hot staph infections," to onychomycosis "teeming with yeast."

One problem is disruption of the cuticle with "clippers, drills, and all these little implements that they use to poke and prod and scrape."

A word to patients to "nurture your cuticles" could help to avoid problems that arise because when aggressive cuticle trimming provides access to organisms that thrive in the moist, dark, warm place underneath the nail.

Infection sources in nail salons are reused files (which cannot be easily sterilized) and improperly cleaned pedicure tubs, which can incubate bacteria that find hospitable hosts in each pair of newly shaved legs that dip into the warm water baths they contain. ■

Fusidic Acid Resistance Persists Despite Moves to Curb Its Use

BY NANCY WALSH
New York Bureau

MANCHESTER, ENGLAND — Levels of fusidic acid-resistant *Staphylococcus aureus* have not fallen despite efforts to limit the use of this topical antibiotic, which suggests that a community reservoir of resistance has developed, Dr. Angana Mitra said at the annual meeting of the British Association of Dermatologists.

High levels of fusidic acid-resistant *S. aureus* (FRSA) have been reported in the United Kingdom previously, particularly in dermatology patients. In an audit done over a 4-month period in 2001, resistant isolates were identified in 50% of dermatology patients, in 9% of primary care patients, 10% of hospital inpatients, and 10% of nondermatology outpatients, said Dr. Mitra of the department of

dermatology, Dewsbury District Hospital, West Yorkshire, England. An active education program was undertaken on the appropriate use of topical antibiotics, and a repeat audit was done over the same 4-month period in 2004.

The total number of *S. aureus* isolates was much higher in 2004, at 604, than in 2001, at 349. This is likely to reflect an increased awareness of antibiotic resistance in general, with more swabs being taken, she said.

In 2001, the level of FRSA in primary care, hospital inpatients, and nondermatology outpatients was similar, at 10%. In comparison, at that time, 50% of dermatology patients had FRSA. The level in dermatology fell slightly and not significantly by 2004, to 41%. However, the level had doubled among hospital inpatients and almost tripled in primary care and nondermatology outpatients.

Topical fusidic acid use within the previous 6 months

was reported by 63% of dermatology patients in 2001 (Br. J. Dermatol. 2003;148:1018-20). This fell to 15% in 2004.

Hospital prescriptions for topical fusidic acid also fell, from an average of 42 per month to 1-2 per month, and the number of community prescriptions also decreased significantly, but there was no corresponding drop in FRSA, Dr. Mitra said. Persistence of FRSA suggests the presence of a reservoir in the community, and there may be a lag period before this clears. "We therefore advocate continued control on topical fusidic acid use," she said.

The drug should be used for short periods and for appropriate indications. In 2001 and 2004, the most common reason for using fusidic acid was not staphylococcal skin infection but atopic eczema, said Dr. Mitra, adding that, for the first time, FRSA also resistant to methicillin was identified in 11% of patients. ■