Starting With Warts, the Questions Parents Ask

Dr. Sheila F. Friedlander uses the 'triple whammy': salicylic acid, salicylic bandage, and then duct tape.

BY GREG MUIRHEAD
Contributing Writer

MAUI, HAWAII — Questions that are commonly asked of pediatric dermatologists by parents range from how to get rid of warts to what to do about community-acquired methicillin-resistant *Staphylococcus aureus* infections, reported Dr. Sheila F. Friedlander.

The director of the fellowship training program in pediatric and adolescent dermatology at Rady Children's Hospital, San Diego, Dr. Friedlander gave some examples of the top questions asked, together with her answers, at a meeting sponsored by the University Children's Medical Group and the American Academy of Pediatrics:

► **How can you get rid of my child's warts?** Warts account for 8% of dermatology visits; up to 20% of school-age children are affected. Many warts just go away. The average cure rate for warts with placebo is 27% at 15 weeks, Dr. Friedlander said.

For treatment of warts, the best evidence available comes from five trials supporting the use of salicylic acid. A 6-week study of wart treatment with duct tape on 103 children found a modest but insignificant effect: 16% duct tape vs. 6% placebo.

Although cryotherapy is not well supported by studies, and the manner of application varies widely, empirically it works. Dr. Friedlander said she uses an approach she calls the "triple whammy": salicylic acid, salicylic bandage, and then duct tape.

If you try immunotherapy, skin test allergens are used: *Candida*, mumps, or *Trichophyton*. For the largest warts, inject 0.1-0.3 cc directly into the wart. Repeat the immunotherapy treatment every 3 weeks for 3-5 treatments.

The adult cure rate with *Candida* is 88% for local warts and 66% for distal ones. The relapse rate at 2 years is 5%, compared with 39% for cryotherapy, and 10% for laser.

Genital warts are now preventable by the quadrivalent human papillomavirus (HPV) vaccine Gardasil (Merck). It protects against HPV 6/11/16/18 and is 95% effective for as long as 4.5 years.

The Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices recommends routine vaccination of all girls ages 11-12 years with 3 doses, but it can be given at ages 9-26. The goal is to administer the vaccine prior to sexual contact.

About 30% of 9th graders and 60% of 12th graders are estimated to be sexually active. Cervical cancer, caused by HPV, is the second most common cancer in women worldwide, with 233,000 deaths per year, Dr. Friedlander said.

► **What can be done about head lice?** Dislodged by towels and hair dryers, lice can be transmitted by fomites, with eggs landing on fabrics, bedding, and furniture. These all need to be cleaned. For treatment, Dr. Friedlander recommends starting with topical over-the-counter (OTC) pyrethrin or permethrins.

The use of malathion is an option, but be aware that it is flammable—the patient should avoid the use of hairdryers and flames during treatment. Also, she observed, "It stinks to high heaven."

Another option, used in England and Israel, is to wash the hair, add hair conditioner (which makes the hair slippery and hard for eggs to adhere), and comb with a fine-tooth comb.

The use of Cetaphil cleanser is yet another option. The OTC cleanser is applied on a dry scalp and spread over the head until the hair is wet. Then the hair is blow-dried, and the cleanser is washed out the next day. The procedure is repeated in 7-10 days.

An effective hair dryer treatment is LouseBuster. It is slightly cooler than a standard blow dryer, but provides twice the volume of air, which kills head lice. Its effectiveness is 100% ovicidal, with 80% mortality of hatched lice (Pediatrics 2006;118:1962-70).

Use of oral ivermectin is another option, she said, "But I certainly wouldn't go with it for first-line therapy."

Dr. Friedlander suggested using the Cetaphil cleanser treatment combined with the use of a hair dryer.

► **How can varicella infection be avoided?** "We need to remember that chicken pox is tamed, but not conquered," Dr. Friedlander said at the meeting, which was also sponsored by California Chapter 2 of the AAP.

Varivax, the live attenuated varicella vaccine available since 1995, has a protection rate of 85%; it is 97% effective in preventing moderate to severe disease. Hospitalization rates for varicella have decreased from 2.3/100,000 in 1994 to 0.3/100,000 in 2002, and mortality also has decreased (N. Engl. J. Med. 2005;352:450-8).

But there has been a problem with more severe disease developing in children who have not been vaccinated for more than 5 years. Therefore, children should receive two vaccinations, with the first dose given at 12-15 months, and the second between ages 4 and 6 years. All others should receive "catch-up" doses. Quadrivalent vaccines (MMRV, Proquad) are options, she said.

► **What can be done about melanoma in children?** The incidence of melanoma in children is low but rising. In children, the disease can present as nodular lesions and amelanotic lesions, and it can be mistaken for pyogenic granuloma. Risk factors include a family history of melanoma, large numbers of moles, atypical moles, fair skin, freckling, red hair, sun exposure, and BRAF and NRAS activating gene mutations in tissue (Oncogene 2003;22:3053-62; Am. J. Hum. Genet. 2003;73:301-13).

The most effective treatment is high-dose interferon alpha-2b. Some data suggest that the younger the patient, the greater the likelihood of event-free survival (Cancer 2005;103:780-7).

► **How can children be protected from the sun?** "I always emphasize physical protection," Dr. Friedlander said. "Get the cap out, get the clothing out, and reserve the sunscreen for areas you can't cover." Sunscreens should provide UVA protection as well as UVB. Good options include Helioplex (Neutrogena), which contains a new stabilizer at strengths of SPF 30 and 45, and Anthelios (La Roche Posay), which contains mexoryl, SPF 15, she said.

Although it's been found that a little sun exposure is good for getting vitamin D, consider food alternatives, including milk, Dr. Friedlander said.

► **Hemangiomas: Which ones may lead to a complication?** The problem hemangiomas are those that are large, segmental, located on the face, and/or that obstruct a vital function. The number of hemangiomas may increase risk, particularly if there are more than six or seven, she said.

Therapy includes "watchful waiting" and the use of systemic prednisolone (2-3 mg/kg per day).

Orapred 15 mg/5 mL tastes better. It should be given in the morning for 4-8 weeks and then tapered as much as possible. This is effective in 84% of patients with hemangioma of infancy, Dr. Friedlander said.

Other options include the use of topical class 1 steroids (clobetasol) and intralesional corticosteroids—but beware that the latter can cause thromboses of the eye.

Another option is laser therapy, but not as first-line treatment. Difficult cases may be treated with vincristine, but it is phlebitic, she said.

Large facial hemangiomas require a careful physical exam, eye exam, and cardiac exam with echocardiography. Consider cranial magnetic resonance angiography and be aware of long-term vasculo-occlusive risks.

Hemangiomas that present in a "beard distribution" may mark underlying airway hemangiomas that compromise the airway.

For these, short courses of oral steroids may improve for a while but also may delay diagnosis. Pay attention also to midline and sacral lesions.

Ulcerated hemangiomas can be treated with saline compresses, topical antibiotics (mupirocin, Bacitracin, metronidazole), occlusive dressings (DuoDERM, Vigilon, OmniDerm), pulsed dye laser therapy, systemic and intralesional steroids, excision, and 0.01% topical Becaplermin, Dr. Friedlander said.

► **How about pediatric onychomycosis?** Topical treatment options include ciclopirox, amorolfine lacquer, bifonazole with 40% urea, and topical terbinafine.

Terbinafine 5 mg/kg per day can be used for the fingernails 6 weeks or toenails 12 weeks, but don't exceed 250 mg.

Fluconazole 6 mg/kg can be used once per week for 12 weeks on the fingernails and 26 weeks on the toenails.

Itraconazole caps 5 mg/kg per day pulse therapy can be used—two pulses for the fingernails and three pulses for the toenails, she said.

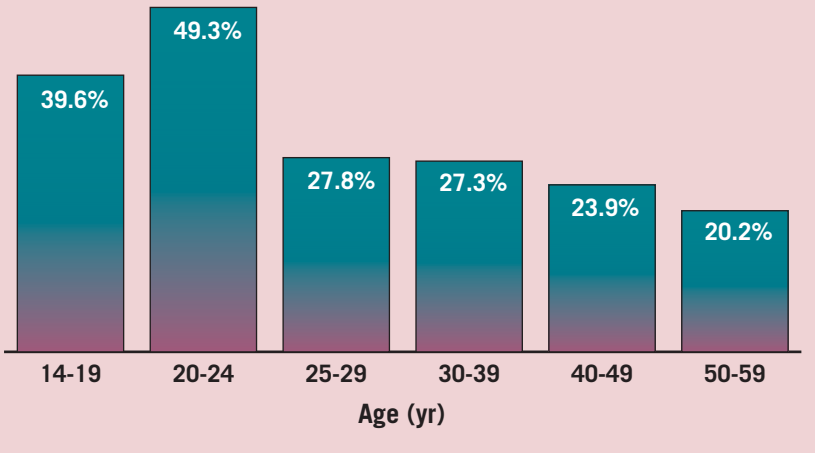
► **What can be done about atopic dermatitis?** "Corticosteroids are very helpful, but they can cause thinning of the skin and skin atrophy," she said. "And if too much is absorbed, they can cause stunting of growth; so we have to be careful when we use them."

There is an emerging class of topical agents that focuses on barrier function—physiologic moisturizers. Options include ceramide formulations in special delivery systems (Cerave, Epiceram); palmitoylethanolamide (PEA); MimyX, a cream containing endogenous fatty acid; and glycyrrhetinic acid/hyaluronic acid/shea butter combination cream (Atopiclair). "They're very expensive," she cautioned. "You should start out with Vaseline or Aquaphor."

Dr. Friedlander disclosed that she is a speaker on the speakers' bureau, a consultant, and/or involved with clinical research trials for the following companies: Novartis, Connetics Corp., Astellas Pharma Inc., Dermik Laboratories, and Graceway Pharmaceuticals. ■

DATA WATCH

Human Papillomavirus Prevalence Highest in 20- to 24-Year-Olds



Note: Data are for sexually active females.
Source: Centers for Disease Control and Prevention