Terbinafine Deemed Attractive for Tinea Capitis

BY BRUCE JANCIN

MAUI, HAWAII — Oral terbinafine as first-line therapy for tinea capitis offers an unequalled combination of a good cure rate, fast results, minimal adverse events, and a stunningly low cost, according to Dr. Bernard A. Cohen.

"You can get a 30-day supply of terbinafine in my community at Wal-Mart for $4," Dr. Cohen said at the annual Hawaii dermatology seminar sponsored by Skin Disease Education Foundation.

Compliance is a major issue in treating tinea capitis because the drugs have lengthy treatment durations. However, a course of terbinafine (Lamisil) lasts only about half as long as a course of griseofulvin, and that's an important consideration, noted Dr. Cohen, director of pediatric dermatology at Johns Hopkins Children's Center, Baltimore.

"Terbinafine and griseofulvin are the two drugs I use most often in my practice. Since compliance is an issue, and I think 6 weeks of treatment is a lot easier than 2.5-3 months of treatment, and I have to get proof-of-cure cultures in the kids I treat with griseofulvin, Lamisil simplifies my life. When I can use it as a first-line drug, I will. There are some situations where I'm going to use griseofulvin, though—like in a white kid with a *Microsporum canis* infection," Dr. Cohen explained.

Terbinafine, approved by the Food and Drug Administration in 2007 for the treatment of tinea capitis, is more effective for treating *Trichophyton tonsurans*—the No. 1 cause of the infection—than for treating *M. canis*, he said. The FDA has approved terbinafine for use in children older than age 4 years, and recommends a pretreatment liver function test.

Skin and hair concentrations of terbinafine and itraconazole (an off-label option for tinea capitis) persist for at least 55 days after discontinuation of therapy. In contrast, within 4 days after discontinuation of griseofulvin, no detectable level of drug is present in skin or plasma.

Dr. Cohen prescribes a single daily 250-mg tablet of terbinafine in children weighing more than 40 kg, half a tablet in those weighing 20-40 kg, and one-quarter tablet in children weighing less than 20 kg.

The drug has good cure rates, fast results, minimal adverse events, and is inexpensive. 'You can get a 30-day supply of terbinafine in my community at Wal-Mart for $4.'

Terbinafine oral granules are a useful formulation in young children. It's an expensive agent, however, and not widely available in pharmacies, Dr. Cohen said. For younger patients, he simply has the family halve or quarter a generic tablet, use a spoon to crush the appropriate portion against a cutting board, and sprinkle the medication in the child's food. Acidic foods interfere with the drug's absorption, though, so terbinafine shouldn't be mixed into applesauce.

Griseofulvin is an erratically absorbed drug. Although the approved dosage is 11 mg/kg per day, today most pediatric dermatologists find it necessary to prescribe 15-20 mg/kg per day in order to obtain good efficacy. That may be in part because of the development of increasing resistance to the antifungal during the last several decades, but probably has more to do with compliance considerations, according to Dr. Cohen.

Ketoconazole is also approved for tinea capitis, but Dr. Cohen said he no longer uses it. It's not as effective as griseofulvin, has a higher risk of adverse events (particularly GI problems), and requires routine monitoring of liver function.

Several small studies suggest that 6 weeks of fluconazole at 5-7.5 mg/kg per day is roughly as effective as a course of griseofulvin. Although it's off label for tinea capitis, fluconazole is well tolerated, and pediatricians and family physicians are quite comfortable in using the antifungal because of its indication for candidiasis, Dr. Cohen noted.

He disclosed having no relevant financial conflicts of interest. SDEF and this newspaper are owned by Elsevier. ■