Three-Day Antibiotic Effective for Skin Abscesses

BY BRUCE JANCIN

Shortening the duration of antibiotic therapy from the standard 10 days to 3 following surgical drainage of presumed *Staphylococcus aureus* skin abscesses yields no reduction in cure rates and no increase in recurrence risk or secondary infections spreading to household contacts, according to a randomized comparative trial.

There were, however, notably fewer side effects in the 3-day treatment arm of the 114-patient randomized study: a 9% rate, compared with 22% with 10 days of therapy. The side effects were mainly diarrhea, vomiting, or rash, Dr. Lucy C. Holmes reported.

Participants ranged in age from 6 months to 17 years, with a mean age of about 7 years. Roughly one-quarter of the skin abscesses were located above the waist, the rest below. Of all abscesses, 36% were located on the buttocks, making this by far the most common body site. This is consistent with previously published studies by Dr. Holmes' coworkers suggesting that high rates of *S. aureus* colonization of the rectum rather than the nose may be the source of these common buttock abscesses, according to Dr. Holmes of the State University of New York at Buffalo.

All subjects underwent open surgical drainage and irrigation of their abscesses and had a subcutaneous drain inserted. Then they began either 3 or 10 days of trimethoprim-sulfamethoxazole. This agent was chosen for the study because recent experience in Buffalo indicated the majority of local patients who present with skin abscesses have *S. aureus* infections, she explained.

Cure rates were 93% in the 3-day antibiotic group and 98% in the 10-day group, but the 3-day group had a 9% side effect rate, compared with 22% for the 10-day group.

This indeed proved to be the case in this study: Culture results showed that 62 of 114 patients had methicillin-resistant *S. aureus* (MRSA) and 40 had methicillin-susceptible *S. aureus*. All were sensitive in vitro to TMP-SMX.

Patients were seen on day 10-14 to assess for resolution of the infection and remove the subcutaneous drain. At that time, the cure rate was 93% in the 3-day antibiotic group and not significantly different at 98% in the 10-day group. All treatment failures were in the MRSA group.

Telephone contact at 1, 3, and 6 months of follow-up revealed cumulative recurrence rates of 19%, 36%, and 49%, respectively, in the 3-day group. Rates were similar in the 10-day therapy group at 10%, 28%, and 48%.

"The most striking finding is that recurrence rates increased to close to 50% at the 6-month follow-up regardless of the treatment approach," Dr. Holmes observed.

Rates of secondary spread to household contacts were 4%, 11%, and 35% at 1, 3, and 6 months, respectively, in the 3-day treatment group and similar at 14%, 31%, and 38% with 10 days of treatment.

Dr. Holmes presented the results at the annual meeting of the Pediatric Academic Societies in Denver. In response to audience questions as to why the investigators didn't include a surgical drainage plus placebo arm in their study, she replied that it's unclear if incision and drainage is sufficient therapy in patients whose abscesses are caused by community-associated MRSA. In earlier studies, the Buffalo investigators showed a higher recurrence rate with placebo than with the 10 days of antibiotic therapy widely utilized in their area. That was the impetus for testing an alternative short, 3-day treatment course.

Dr. Holmes reported having no financial conflicts. ■

Early Stooling Pattern May Portend Risk of NEC

BY BRUCE JANCIN

A baby's stooling pattern during the first postnatal week may predict later development of necrotizing enterocolitis.

If this finding from a 198-subject case-control study is confirmed by others, early stool pattern could provide a simple indicator of increased risk for the most common gastrointestinal emergency occurring in neonates. Necrotizing enterocolitis (NEC) affects roughly 10% of all babies admitted to neonatal ICUs. It's associated with substantial long-term morbidity, including neurodevelopmental delays and short gut syndrome, Stephanie Meller noted at the annual meeting of the Pediatric Academic Societies in Denver.

The study included 99 babies born at less than 29 weeks' gestation who developed NEC and an equal number of gestational age-matched controls. As has been shown in other studies, a first feeding with breast milk rather than formula was associated with a significantly reduced risk of later NEC. Indeed, 57% of the NEC patients and 72% of controls had breast milk for their first feeding, according to Ms. Meller, a medical student at Yale University, New Haven, Conn.

The novel study finding involved differences in early stool patterns. Babies who subsequently developed Bell Stage I or II NEC had a greater mean and maximum number of stools per day during the first week than those who did not. The mean number of stools per day was 0.57 in controls, 0.86 in 33 infants with NEC Stage I, 1.0 in 23 NEC Stage II infants, and 0.43 in 43 Stage III babies. The mean maximum number of stools per day during postnatal week 1 was 2 in controls, 3 in patients with NEC Stage I or II, and 2 in those with NEC Stage III. Thus, the early increase in stools didn't hold true for infants who later developed the most severe category of NEC. Nonetheless, infant stooling patterns warrant further study as a potential NEC predictor, she added. ■

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Major Finding: Babies who subsequently developed Bell Stage I or II NEC had a greater mean and maximum number of stools per day during the first week than those who did not. The mean number of stools per day was 0.57 in controls, 0.86 in 33 infants with NEC Stage I, 1.0 in 23 NEC Stage II infants, and 0.43 in 43 Stage III babies.

Data Source: A 198-subject case-control study of stooling patterns in the first postnatal week.

Disclosures: Ms. Meller's study received an American Pediatric Society/Society for Pediatric Research Student Research Program Award. She said she had no relevant financial disclosures.