Tips from Other Journals

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The trade names of drugs listed in Tips from Other Journals are based on what is currently available and not necessarily the brand of drug that was used in the study being discussed.

Drainage Sufficient Treatment for Smaller Uncomplicated Abscesses

Background: The incision and drainage technique has historically been the standard of care for skin abscesses. However, because of concerns about community-acquired methicillin-resistant *Staphylococcus aureus* (MRSA), antibiotic therapy is often added to incision and drainage for abscess management, even though it is unknown whether it improves clinical outcomes. Duong and colleagues evaluated the effectiveness of antibiotics versus placebo in the treatment of abscesses after incision and drainage.

The Study: The authors evaluated 149 children three months to 18 years of age who presented with a skin abscess. Following incision and drainage, probing for loculations, and wound culturing, patients were randomized to receive placebo or a 10-day course of trimethoprim/sulfamethoxazole (Septra; 10 to 20 mg of trimethoprim per kg per day divided into two doses, with a maximum of 160 mg per dose). All patients had symptoms for less than one week, did not appear to have any signs of toxicity, and had a temperature of less than 101.1°F (38.4°C). Patients with chronic health problems (e.g., diabetes mellitus), recent immunosuppressant or antibiotic use, and contraindications to trimethoprim/sulfamethoxazole were excluded. Patients were told not to use topical antiseptics or antibiotics at home to avoid potential confounding factors, and were reevaluated 10 and 90 days later for signs of recurrence. Treatment failure was defined as worsening signs or symptoms, or presence of persistent cellulitis or abscess at the 10-day follow-up visit.

Results: Mean abscess diameter before incision and drainage was 2.2 ± 1.5 cm as determined by ultrasonography. Community-acquired MRSA accounted for 80 percent of culture-isolated bacteria; however, all isolates were sensitive to trimethoprim/sulfamethoxazole. Adverse effect rates were similar between the groups, with no serious effects reported. Failure rates also were similar between groups at follow-up on day 10 (5.3 percent for the placebo group versus 4.1 percent for the antibiotic group) and day 90 (28.8 versus 28.3 percent, respectively), and did not correlate with abscess size or the presence of community-acquired MRSA. The authors note that more patients in the placebo group experienced new lesions at day 10 (26.4 versus 12.9 percent in the antibiotic group), but suggest that future studies be conducted to support this.

Conclusion: The authors conclude that adding antibiotic therapy to incision and drainage does not improve abscess resolution rates more than incision and drainage alone among children, even when MRSA is the responsible organism.

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Source: Duong M, et al. Randomized, controlled trial of antibiotics in the management of community-acquired skin abscesses in the pediatric patient. *Ann Emerg Med.* May 2010;55(5):401-407.

EDITOR'S NOTE: A study of adults with uncomplicated abscesses also reported that antibiotics did not improve cure rates beyond incision and drainage alone—although the authors reported that 87.8 percent of cases were caused by MRSA and cephalexin (Keflex; generally believed to be less effective against MRSA) was used.[1] Nevertheless, the study by Duong and colleagues has several caveats. Compliance rates were low (66 percent), which could have artificially decreased the antibiotic group's reported cure rate. Furthermore, the current study was restricted to previously healthy children who did not appear toxic and had temperatures of less than 101.1°F. Despite the proven historic benefit of incision and drainage for treating abscesses, further studies would be useful to determine if the technique is sufficient to treat more complicated conditions (i.e., patients presenting with significant fever, larger abscesses, or comorbidities).—K.T.M.

REFERENCE

1. Rajendran PM, Young D, Maurer T, et al. Randomized, double-blind, placebo-controlled trial of cephalexin for treatment of uncomplicated skin abscesses in a population at risk for community-acquired methicillin-resistant *Staphylococcus aureus* infection. *Antimicrob Agents Chemother.* 2007;51(11):4044-4048. ■