

Study Shows Antibiotics May Improve Skin Abscess Cure Rates

The antibiotic combination trimethoprim-sulfamethoxazole provided a small improvement in cure rates over drainage alone in treating skin abscesses.

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February 22, 2017 - In a randomized trial of emergency department patients with skin abscesses requiring drainage, treatment with the antibiotic combination trimethoprim-sulfamethoxazole for 7 days provided a 7.2% advantage over placebo in producing clinical cure, though drainage alone also provided high cure rates.

David Talan, MD of the Olive View-UCLA Medical Center and colleagues reported on the trial in the March 3rd, 2016 issue of the *New England Journal of Medicine*.

Current guidelines indicate that drainage alone is usually sufficient for uncomplicated abscesses, but the question of whether antibiotics may provide benefit in these cases is of interest. Previous, smaller studies did not find that antibiotic treatment improved clinical cure rates.

The current study's primary goal was to determine in a larger study whether trimethoprim-sulfamethoxazole provides superior clinical cure rates over placebo in patients with uncomplicated cutaneous abscesses that require drainage. According to the authors, antibiotic treatment may offer "the possibility of lower rates of costly subsequent medical visits, surgeries, and hospitalizations and of new infections among patients and their household contacts."

A total of 1265 patients were enrolled in the study after they presented in emergency departments with a cutaneous abscess at least 2 cm in diameter and that had not been present more than one week. The patients were randomized at a 1:1 ratio to receive trimethoprim (320 mg twice daily) plus sulfamethoxazole (1600 mg twice daily) or placebo for 7 days. All patients received drainage at their initial visit.

Patients were considered to achieve clinical cure, the primary outcome, if they had little or no erythema, tenderness, and swelling 14 to 21 days after the initial visit, and if they did not have fever or worsened erythema or swelling between days 3 through 4 and days 14 through 21. Trimethoprim-sulfamethoxazole was superior to placebo at producing cure in the per-protocol group (92.9% compared with 85.7%; $p < 0.001$).

Trimethoprim-sulfamethoxazole was also superior to placebo in some secondary outcomes. The antibiotic-treated patients were less likely to need subsequent abscess drainage, to develop skin infections at other sites, and to pass their infection to family members.

No serious treatment-related adverse events occurred, but the antibiotic-treated patients experienced a slightly higher rate of GI-system adverse events, which were mostly mild.

This study adds to the discussion of whether antibiotics are warranted in treating uncomplicated abscesses, although the authors pointed out that more information is needed. The authors noted

that an upcoming clinical trial of antibiotic use for skin lesions “may also shed light on the efficacy of adjunctive antibiotics.”

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