in 99 patients (79%) who received ribavirin for HCPS, and 26 (21%) required blood transfusions. Three subjects were withdrawn from the study because of pancreatitis.

Although we agree that it can be difficult to obtain larger sample sizes in studies of rare infectious diseases (as evidenced by the low enrollment rate in the study of HCPS by Mertz et al. [1]), one should be clear about the limitations of the data imposed by smaller sample sizes when evaluating the safety, as well as the efficacy, of drugs.

Acknowledgments

No official support for or endorsement of this article by the US Food and Drug Administration is intended or should be inferred.

Potential conflicts of interest. All authors: no conflicts.

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CORRESPONDENCE • CID 2005;40 (15 May) • 1551

Trimethoprim-Sulfamethoxazole in the Treatment of Stenotrophomonas maltophilia Osteomyelitis

Sir—Only 2 previous cases of osteomyelitis due to Stenotrophomonas maltophilia have been briefly described in the literature [1, 2], and the outcomes were not described. Despite the difficulty in treating both S. maltophilia infections and osteomyelitis, we report the first successful treatment of a case of S. maltophilia osteomyelitis and highlight the concerns regarding the use of fluoroquinolones to treat this disease.

One month after undergoing a second L5-S1 discectomy, a 67-year-old woman presented with a 2-week history of chills, sweats, and increased back pain. Her erythrocyte sedimentation rate was 119 mm/h (normal range, 0–30 mm/h), and her C-reactive protein concentration was 8.8 mg/dL (normal range, 0–1.0 mg/dL).

Findings of MRI were consistent with vertebral osteomyelitis. Fluoroscopically guided disc aspiration was performed, and a regimen of vancomycin and levofloxacin was started empirically. Culture of a specimen of the aspirated disc material grew S. maltophilia susceptible to levofloxacin (MIC, \( \leq 2 \) \( \mu g/mL \)) and trimethoprim-sulfamethoxazole (TMP-SMX) (MIC, \( \leq 2/38 \mu g/mL \)) by E-test (AB Biodisk), and, after oral TMP-SMX desensitization failed, the patient completed 6 weeks of therapy with vancomycin (1 g intravenously twice daily) and levofloxacin (750 mg by mouth daily).

Two months later, the patient returned to the hospital with worsening low-back pain; at that time, the erythrocyte sedimentation rate was 55 mm/h, and the C-reactive protein level was 3.61 mg/dL.

Findings of an MRI were consistent with relapse of osteomyelitis, and culture of aspirated disc material again grew S. maltophilia. The isolate was susceptible to TMP-SMX and ticarcillin-clavulanate but was resistant to levofloxacin by E-test (MIC, \( \geq 8 \mu g/mL \)). Inpatient intravenous desensitization to TMP-SMX was successful, and the patient completed 6 weeks of therapy with TMP-SMX (2 tablets of 160/800 mg 3 times daily) and ticarcillin-clavulanate (18.6 g daily by continuous infusion). TMP-SMX therapy was continued for 6 additional months, and the patient remained free of disease 18 months after completion of all antibiotic therapy.

(The voluntary, fully informed consent of the subject was obtained, as required by Air Force Regulation 169–9.)

One might expect gatifloxacin and levofloxacin to be ideal agents to treat S. maltophilia osteomyelitis, because several investigators have described the favorable in vitro activity of these drugs against S. maltophilia [3–6], and numerous studies have documented success with fluoroquinolones in treating osteomyelitis [7]. The in vitro activity of fluoroquinolones against S. maltophilia is not uniform: levofloxacin and the 8-methoxy-fluoroquinolones are more active than ciprofloxacin [3, 5, 6]. Recent studies have also found levofloxacin [3] and gatifloxacin [4] to be bactericidal against S. maltophilia by time-kill analysis. One possible explanation for the increased activity of levofloxacin and gatifloxacin against S. maltophilia is that they have better penetration across the outer bacterial membrane because of their more lipophilic structure [3]. In contrast to the fluoroquinolones, TMP-SMX is only bacteriostatic in vitro against most isolates of S. maltophilia [4, 6].

Despite the in vitro advantages of the fluoroquinolones, one disadvantage is the emergence of resistance during therapy. Garrison et al. [8] demonstrated development of high-level ciprofloxacin resistance within 12 h in vitro and within 9 days in vivo. Because of this, some investigators have advocated the use of combination therapy for serious infections. In neutropenic patients with S. maltophilia bacteremia, Muder et al. [9] found mortality was 11% among patients who received combination therapy, compared with 31% among patients who received monotherapy, including TMP-SMX monotherapy. Currently, TMP-SMX is the
only known antimicrobial to which the emergence of resistance during therapy has not been described for *S. maltophilia* [8].

From the case we describe, we conclude that, despite the compelling in vitro evidence regarding the activity of levofloxacin and gatifloxacin against *S. maltophilia*, the preferred initial antimicrobial regimen for *S. maltophilia* osteomyelitis consists of high doses of TMP-SMX in combination with another drug to which the isolate is susceptible in vitro. In addition, at least 1 of these agents, preferably TMP-SMX, should be administered for a prolonged period of time.

**Acknowledgments**

*Potential conflicts of interest.* All authors: no conflicts.

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