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A Comparison of Vancomycin and Metronidazole for the Treatment of Clostridium difficile-Associated Diarrhea, Stratified by Disease Severity.

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BACKGROUND: The incidence and severity of Clostridium difficile-associated diarrhea (CDAD) has been increasing, and there have been recent reports of metronidazole treatment failure. Metronidazole is still commonly used as first-line treatment for CDAD but has never been compared with vancomycin in a prospective, randomized, double-blind, placebo-controlled trial. We conducted such a trial, stratifying patients according to disease severity, to investigate whether one agent was superior for treating either mild or severe disease.

METHODS: From October 1994 through June 2002, patients with CDAD were stratified according to whether they had mild or severe disease based on clinical criteria and were randomly assigned to receive oral metronidazole (250 mg 4 times per day) or oral vancomycin (125 mg 4 times per day) for 10 days. Both groups received an oral placebo in addition to the study drug. Patients were followed up for 21 days to assess cure, treatment failure, relapse, or intolerance.

RESULTS: One hundred seventy-two patients were enrolled, and 150 of these patients successfully completed the trial. Among the patients with mild CDAD, treatment with metronidazole or vancomycin resulted in clinical cure in 90% and 98% of the patients, respectively ($P=.36$). Among the patients with severe CDAD, treatment with metronidazole or vancomycin resulted in clinical cure in 76% and 97% of the patients, respectively ($P=.02$). Clinical symptoms recurred in 15% of the patients treated with metronidazole and 14% of those treated with vancomycin.

CONCLUSIONS: Our findings suggest that metronidazole and vancomycin are equally effective for the treatment of mild CDAD, but vancomycin is superior for treating patients with severe CDAD.

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