maintained over 3.6 g/dL (5), and the use of drugs that have an arrhythmogenic potential, such as phenothiazine, clozapine, tricyclic antidepressants, or trazodone, should be avoided (6–10).

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SEVERE *CLOSTRIDIUM DIFFICILE* COLITIS: THE ROLE OF INTRACOLONIC VANCOMYCIN?

To the Editor:

Is there a role for intracolonic vancomycin in the treatment of severe *Clostridium difficile* colitis? Three months into complete remission after having undergone an allogeneic peripheral blood stem cell transplantation, a 32-year-old white woman with a history of acute myeloblastic leukemia presented with diffuse abdominal pain, diarrhea, and fever of 4 days' duration. She had received azithromycin for presumed bronchitis 5 days before admission. A physical examination revealed a temperature of 39.4°C, a pulse rate of 138 beats/min, a respiratory rate of 24 breaths/min, a blood pressure level of 90/60 mm Hg, as well as hyporeactive bowel sounds, and mild, generalized abdominal tenderness. Laboratory studies disclosed the following values: white blood cell count, 22 700 cells/μL (reference range, 4500–10 000 cells/μL); blood urea nitrogen, 32 mg/dL (reference range, 10–20 mg/dL); and creatinine, 3.1 mg/dL (reference range, 0.4–1.5 mg/dL). Abdominal computed tomography revealed severe pancolitis with pneumatosis in the right colonic wall (Figure). After fluid resuscitation, the patient was empirically treated for presumptive sepsis with parenteral vancomycin, ciprofloxacin, and metronidazole. The patient's stool tested positive for *C. difficile* toxin with Bartels' cytotoxicity assay (Bartels, Issaquah, Washington).

The hospital stay was complicated by *Candida glabrata* fungemia and hospital-acquired pneumonia. The patient remained hypotensive, and required vasopressor and ventilator support for the next 5 days. Flexible sigmoidoscopy revealed diffuse areas of edematous and erythematous mucosa in the rectum, sigmoid colon, and descending colon; there was no evidence of pseudomembranous enterocolitis. Tissue samples for culture and histopathology were negative for fungal, viral, and bacterial pathogens. After the diagnosis of *C. difficile* colitis was established, antibiotics were changed to parenteral metronidazole, intracolonic vancomycin (1 g administered rectally every 4 hours), intravenous ciprofloxacin, and liposomal amphotericin B (5 mg/kg/day). The

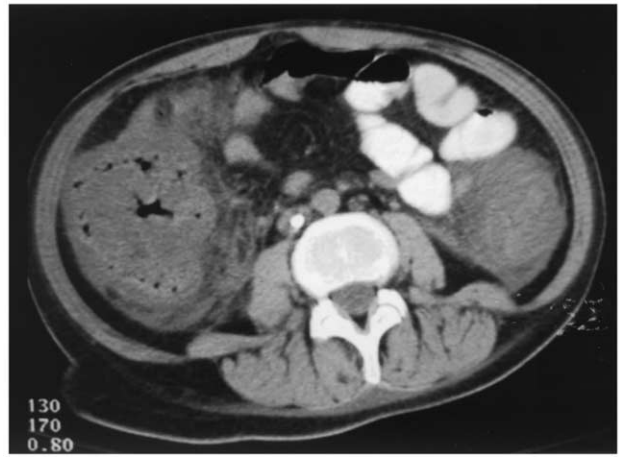

Figure. Computed tomographic scan of the abdomen and pelvis revealing evidence of severe pancolitis with a 2.5-cm thickening of the colonic wall and pneumatosis in the right colon. There is lateral conal fascial thickening and pericolonic edema. The small bowel is nondilated and normal in appearance.

patient showed continued clinical improvement, the fungemia resolved, and she was extubated. On day 8 of treatment, the dosage of intracolonic vancomycin was tapered to every 8 hours, while parenteral metronidazole was changed to oral metronidazole and continued for 2 weeks.

C. difficile is the cause of approximately 25% of all cases of antibiotic-associated diarrhea and the major etiology for pseudomembranous colitis (1). Notably, pseudomembranes are not always present in *C. difficile* colitis, and 10% of cases are not detected when direct visualization is limited to flexible sigmoidoscopy (2). In one study of recipients of allogenic stem cell transplants, the rate of *C. difficile* infection was 13% (3). The source of infection can be either endogenous or exogenous, with onset of symptoms between the start of antibiotic therapy and within 60 days of antibiotic discontinuation (4). Severe cases may be associated with fulminant colitis, toxic megacolon, hyperpyrexia, intestinal perforation, leukemoid reaction, and death (5).

Although uncommon, the toxic form of pseudomembranous colitis usually requires surgical intervention, and has been associated with a crude mortality rate of 35% (5). The indications for surgery include fulminant disease, colonic perforation, toxic megacolon, and failure of medical therapy (5). Our patient, who had severe fulminant *C. difficile* colitis and a colonic wall that was thickened by 2.5 cm, responded to aggressive, nonstandard medical management. The role of intracolonic vancomycin in severe *C. difficile*–associated pancolitis deserves further consideration as an alternative to surgery or as a bridge to surgery in severely ill patients (6).

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ATORVASTATIN-INDUCED REVERSIBLE POSITIVE ANTINUCLEAR ANTIBODIES

To the Editor:

The cholesterol-lowering 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitors, or statins, have sustained benefits in the treatment of patients with hypercholesterolemia, and have been shown to decrease the incidence of coronary events in primary and secondary prevention. Although generally safe and well tolerated, they have been associated with secondary effects, such as hypersensitive reactions, vasculitis, and minor systemic autoimmune syndromes. There have been several reports of patients who developed lupus-like syndromes or vasculitis after treatment with statins (1–6). Atorvastatin is a new and effective HMG-CoA reductase inhibitor (7), which has a safety profile similar to that of other statins. We report a case of positive antinuclear and antihistone antibodies in a 26-year-old man who was treated with atorvastatin.

The patient had cryptorchidism during childhood, as well as benign intracranial hypertension as an adolescent. He had hypercholesterolemia in 1998 (total cholesterol, 335 mg/dL; low-density lipoprotein [LDL] cholesterol, 254 mg/dL), for which he was treated with atorvastatin, administered orally at 20 mg daily. In November 1999, he visited the family physician because of a 4-week course of constitutional symptoms and slight headaches. He tested positive for antinuclear antibodies, and was admitted to our systemic autoimmune diseases unit for further study. The patient reported possible recent photosensitivity; he did not have fever, discoid rash, alopecia, aphthous ulcers, Raynaud's phenomenon, vasculitis, arthralgias, arthritis, myositis, seizures, psychosis, or pleural pain. The standard laboratory data were normal and reported an absence of leukopenia, thrombocytopenia, anemia, and proteinuria. Laboratory studies disclosed the following values: total cholesterol, 206 mg/dL; LDL cholesterol, 133 mg/dL; thyroid-stimulating hormone, 4.57 μIU/mL (normal range, 0.26 to 4 μIU/mL); and free thyrosine, 1.01 ng/dL (normal range, 0.65 to 1.9 ng/dL). Antinuclear antibodies were positive and revealed a speckled pattern (1/320); antihistone antibodies were also positive (276 IU/mL). C3 complement was 114 mg/dL, and C4 complement was 17 mg/dL. Antibodies to double-stranded deoxyribonucleic acid (dsDNA), Sm, Ro/SSA, La/SSB, RNP, Scl-70, centromere, and ribosomal P0 were negative or within normal range. In December 1999, because of possible drug-induced antinuclear antibodies, atorvastatin was replaced with a bile acid–sequestrating agent. Cholesterol levels remained within the normal range. The patient was asymptomatic (Table).

This patient may represent a new case of positive antinuclear and antihistone antibodies after treatment