A 43-year-old woman presented to hospital with a two-day history of acute left lower quadrant pain, nonbloody diarrhea and one episode of bilious emesis. She had a history of complicated systemic lupus erythematosus including end-stage renal disease requiring chronic hemodialysis. She had a remote history of pulmonary tuberculosis that had been appropriately treated. Four months earlier, she was admitted with community-acquired pneumonia and treated with 10 days of levofloxacin. There was no recent travel history, infectious contacts or suspicious food consumed, and no family history of inflammatory bowel disease. She immigrated to Canada from Cambodia in 1988, but had never returned to visit. Her medications included long-standing prednisone (15 mg daily), azathioprine, levothyroxine, carvedilol, pantoprazole, acetylsalicylic acid and pravastatin.

Her examination revealed a fever of 39°C, pulse rate of 103 beats/min, a left sternal heave, a grade 2/6 systolic murmur at the left lower sternal border radiating to the apex with an S4, and a tender abdomen in the left lower quadrant without rebound or guarding. Laboratory results revealed a total leukocyte count of $12.4 \times 10^9/L$ with a normal differential, and normal liver enzymes and serum lipase. Her blood cultures were negative. Abdominal x-rays showed mural thickening in the splenic flexure and descending colon, but no evidence of obstruction. An abdominal computed tomography scan revealed evidence of pancolitis. She underwent sigmoidoscopy which demonstrated only pseudomembranes on rectal biopsy. However, stool enzyme immunoassays for *Clostridium difficile* toxins A and B (C difficile ToxA-BII, Techlab, USA) were repeatedly negative; she did not respond clinically to oral metronidazole, and a repeat sigmoidoscopy one week later was unchanged. A diagnostic test was performed. What is the diagnosis?
DIAGNOSIS

Although no parasites had been seen on the rectal biopsy, stool analysis revealed moderate amounts of larvae of 
Strongyloides stercoralis supporting the diagnosis of Strongyloides hyperinfection. Interestingly, the patient's peripheral eosinophil cell count was 8 × 10⁹/L.

DISCUSSION

Manifestations of S. stercoralis can include coughing and wheezing due to larval migration, or a wide array of gastrointestinal symptoms including abdominal pain, diarrhea, constipation, weight loss, bowel obstruction or gastrointestinal bleeding. In retrospect, our patient had a two-month history of perianal and generalized pruritis, as well as intermittent abdominal cramps and loose stools. The severity of her presentation is in keeping with Strongyloides hyperinfection, a syndrome of accelerated autoinfection with a large burden of organisms confined to organs usually involved in the autoinfective cycle (1); it is distinct from disseminated disease (see below).

Pseudomembranous colitis is an unusual manifestation of hyperinfection; however, endoscopic changes are known to extend from stomach to colon, including friable and edematous mucosa, ulcerations and polyps, as well as exudates or xanthoma-like lesions in the colon. (2). To our knowledge, pseudomembranous colitis has only been reported as a manifestation of S. stercoralis infection in one other publication (3).

S. stercoralis is a potentially life-threatening condition that should always be considered in immunocompromised individuals who originate from endemic areas and have unexplained gastrointestinal or respiratory symptoms. In these hosts, eosinopenia is typical (1). Although eosinophilia is more likely in healthy hosts (4), it is not universal (5,6). Unfortunately, stool examination for parasites and ova using conventional techniques has a low sensitivity and may fail to detect the larvae (7). Serology is not rapidly available in many centers and does not differentiate recent from past infection (4). Serology is not rapidly available in many centers and does not differentiate recent from past infection (4).

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REFERENCES


Not all pseudomembranous colitis is caused by C difficile