

An unusual case of invasive *Blastocystis hominis* infection



Fig. 1 A large ulcer in the cecum with fibrino-purulent exudates.



Fig. 2 Multiple small (2–3 mm) shallow ulcers in the rectum.

A 47-year-old African-American man presented with 3-week history of rectal bleeding. It had started 6 weeks previously while he was visiting Nigeria, with watery diarrhea, abdominal bloating, and pain. His symptoms had resolved without treatment within 2 weeks. Physical examination and hematological and biochemical profiles were all normal. Colonoscopy showed several large ulcers in the cecum, hepatic flexure, and transverse colon with normal surrounding mucosa (▶ **Fig. 1**), and multiple small, shallow ulcers in the rectum (▶ **Fig. 2**). Pathologic examination of biopsies showed exudates with necrosis, and pieces of colonic mucosa with severe acute and chronic inflammation, and focal acute cryptitis, plus multiple vacuolated and amoeboid structures (▶ **Fig. 3**). Subsequent stool study with a special trichrome stain confirmed the diagnosis of *Blastocystis hominis*. He was treated with metronidazole for 10 days with symptom resolution, and no recurrence of diarrhea.

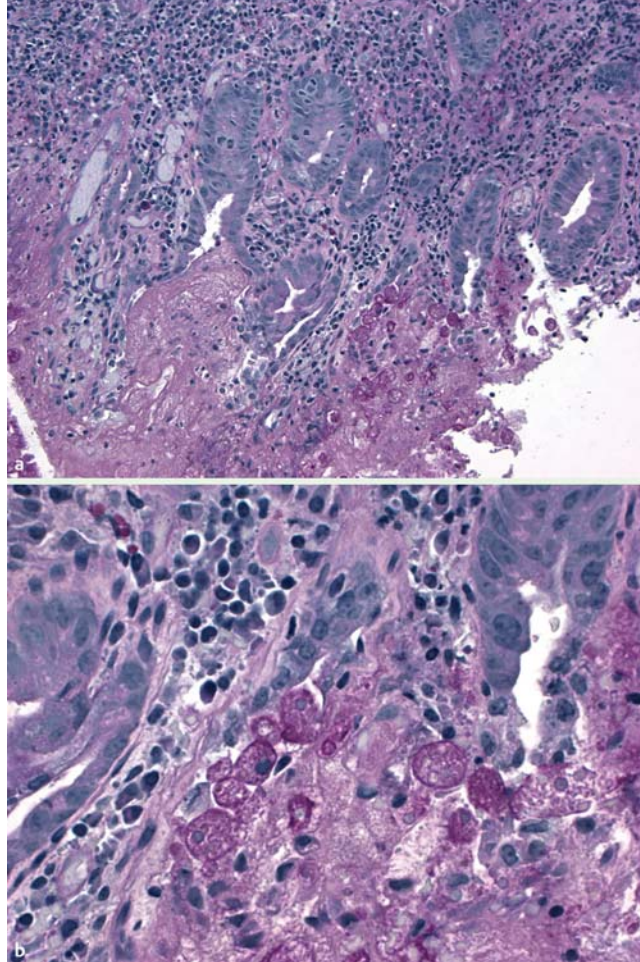


Fig. 3 Histological appearance of a biopsy taken from one of the rectal ulcers stained with periodic acid-Schiff (PAS). **a** magnification $\times 10$. **b** *Blastocystis hominis* showing strong positive staining with PAS, magnification $\times 40$.

B. hominis is an anaerobic nonpathogenic protozoan and one of the most common stool pathogens [1]. Most infected patients are asymptomatic carriers. A presumptive diagnosis of infection is made by the presence of more than five organisms identified per high power field. The parasite, which measures about 5–40 μm , the size of a macrophage, resides in the colon and is transmitted feco-orally [2,3]. The shallow punched-out ulcers more typical for *Entamoeba histolytica* and large ulcers of the colon have never been reported before in healthy adults [4,5]. There is a single previously reported case of invasive *B. hominis* infection in a previously healthy 4-year-old child. Patients do not usually undergo a colonoscopic examination as the typical presenting symptom is a self-limiting watery diarrhea; therefore, it is

possible that some of these immunocompetent patients could also have colonic ulcers. Though an unlikely cause, *B. hominis* is a pathogen to bear in mind when large colonic ulcers are diagnosed, especially in patients with a travel history and diarrhea.

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