

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.

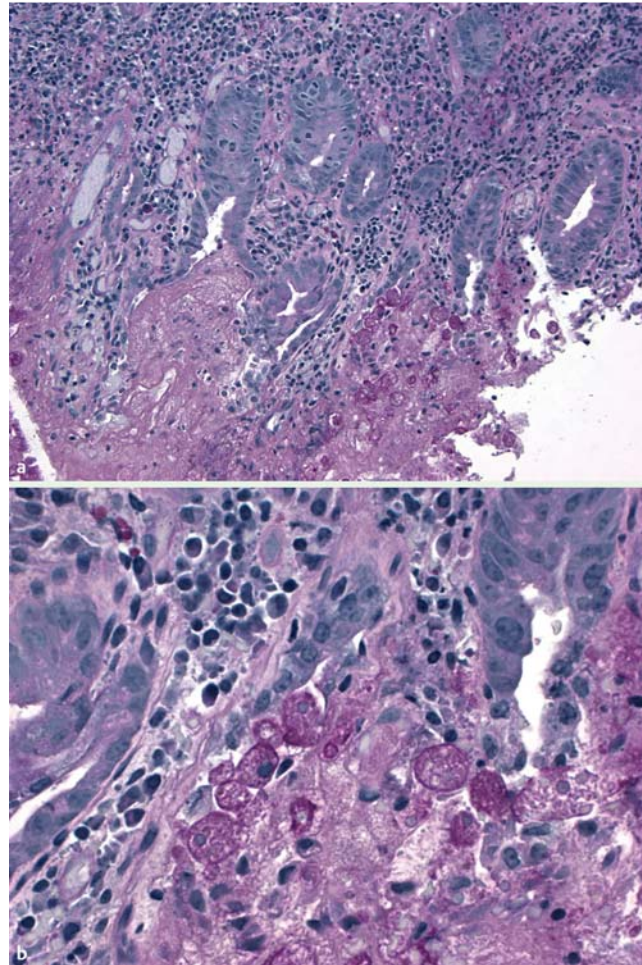


Fig. 3 Histological appearance of a biopsy taken from one of the rectal ulcers stained with periodic acid–Schiff (PAS). **a** magnification $\times 10$. **b** *Blastocystis hominis* showing strong positive staining with PAS, magnification $\times 40$.

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.

Acknowledgments: This material is the result of work supported with resources and use of facilities at the John D. Dingell VAMC, Detroit, Michigan, USA.

Endoscopy_UCTN_Code_CCL_1AD_2AZ

Competing interests: None

S. Janarthanan¹, N. Khoury², F. Antaki¹

- ¹ Division of Gastroenterology, Department of Internal Medicine, John D. Dingell VA Medical Center and Wayne State University, Detroit, Michigan, USA
- ² Department of Pathology and Laboratory Medicine, John D. Dingell VA Medical Center, Detroit, Michigan, USA

References

- 1 Tan KS. New insights on classification, identification, and clinical relevance of *Blastocystis* spp. *Clin Microbiol Rev* 2008; 21: 639–665
- 2 Doyle PW, Helgason MM, Mathias RG, Proctor EM. Epidemiology and pathogenicity of *Blastocystis hominis*. *J Clin Microbiol* 1990; 28: 116–121
- 3 Shlim DR, Hoge CW, Rajah R et al. Is *Blastocystis hominis* a cause of diarrhea in travelers? A prospective controlled study in Nepal. *Clin Infect Dis* 1995; 21: 97–101
- 4 Tan TC, Suresh KG. Amoeboid form of *Blastocystis hominis* – a detailed ultrastructural insight. *Parasitol Res* 2006; 99: 737–742
- 5 WHO/PAHO/UNESCO report. A consultation with experts on amoebiasis. Mexico City, Mexico 28–29 January 1997. *Epidemiol Bull* 1997; 18: 13–14

Bibliography

DOI 10.1055/s-0030-1256322

Endoscopy 2011; 43: E185–E186

© Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

Corresponding author

F. Antaki, MD

Division of Gastroenterology
John D. Dingell VA Medical Center
4646 John R Road, G-3820, Detroit
Michigan 48201, USA
Fax: +1-313-576-1237
fadi.antaki@va.gov