



Cryptococcus Colitis: An Atypical Cause of Chronic Diarrhea in an Immunocompetent Patient



Cyrus Edelson, MD¹, Randy Wright, MD²

¹San Antonio Military Medical Center, Fort Sam Houston, Texas

²Department of Medicine, Gastroenterology and Hepatology Service, University Hospital of Texas at San Antonio

Background

- Cryptococcal colitis is rarely identified as an etiology of chronic diarrhea in immunocompetent individuals given its propensity towards HIV or immunosuppressed patients
- This is an interesting case of an immunocompetent individual found to have cryptococcal colitis requiring histopathologic diagnosis following negative PCR evaluation

Case

- 59-year-old male with chronic kidney disease without prior overt immunocompromising state presented with chronic diarrhea and associated malnutrition with significant weight loss over the last several months.
- Initial labs showed anemia without thrombocytopenia, hypoalbuminemia, and elevated INR without derangements of liver associated enzymes.
- Extensive infectious workup to include HIV, celiac disease, and community acquired GI PCR was pan negative to include Cryptosporidium, Giardia, Entamoeba histolytic, and Clostridium difficile. A CT abdomen/pelvis was unremarkable for colonic or small bowel inflammation.
- Colonoscopy was performed, remarkable for multiple scattered diminutive ulcers localized to the rectum and extending to 15 cm from the anal verge with biopsies obtained.
- Subsequent sexual transmitted infectious testing was negative for chlamydia, gonorrhea, and HIV although notable for a positive treponemal palladium antibody with a negative RPR.
- Colonic biopsies returned with numerous fungal organisms with narrow based budding yeast most suggestive of cryptococcus.

Imaging

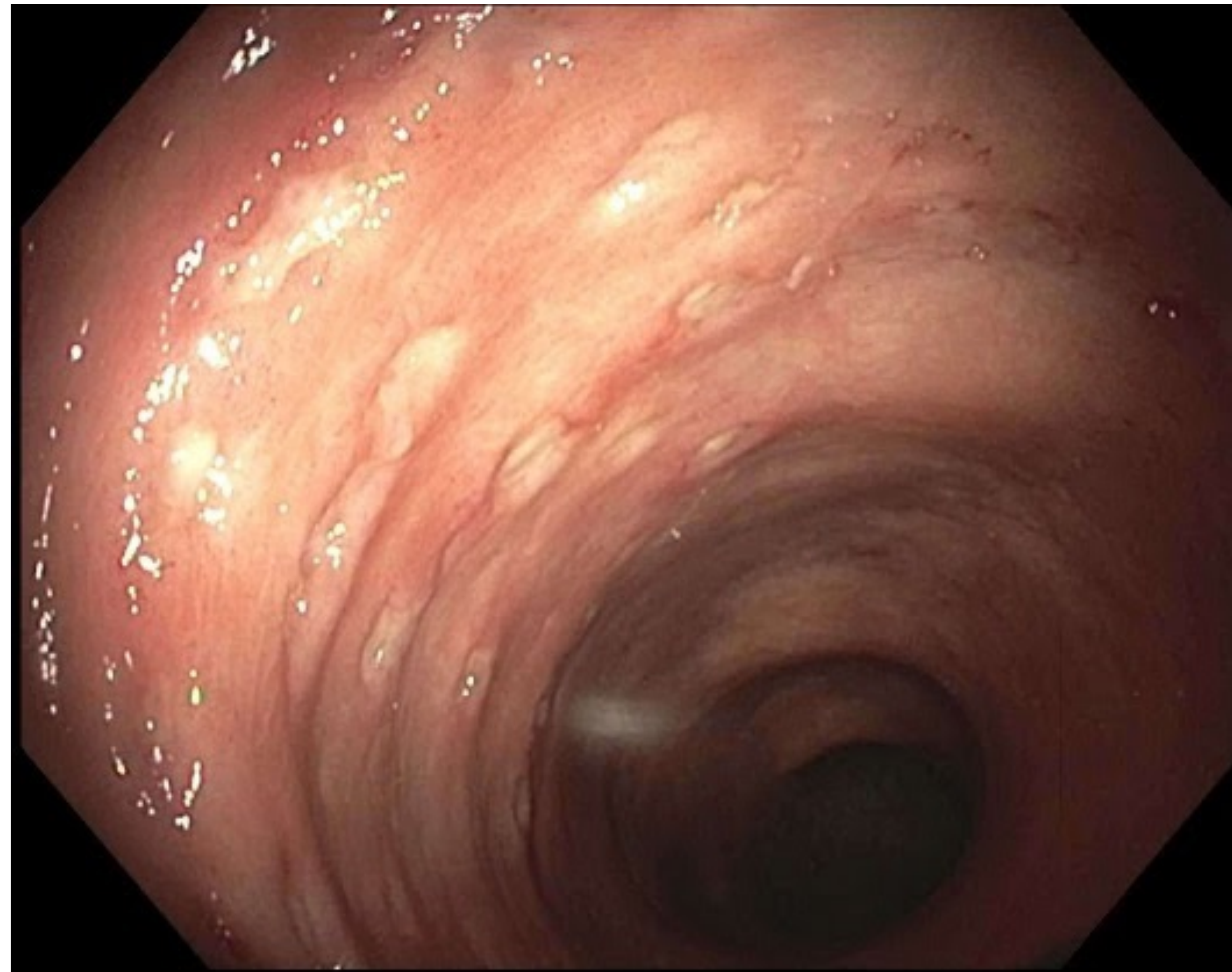


Figure 1: Colonoscopy - Rectal Mucosal

Discussion

- Cryptococcus is one of the leading causes of death among immunosuppressed individuals mostly from cryptococcus neoformans as well as cryptococcus giattii.
- Diagnosed via multiple modalities to include serologic cryptococcal polysaccharide capsular antigen, PCR, or direct visualization of the fungus with an India ink stain on sputum cultures, CSF, or histopathologic staining of tissues.
- With a previously negative cryptococcus PCR, our patient required histopathologic tissue staining for diagnosis following direct endoscopic visualization.
- This highlights the difficulty of diagnosing cryptococcal colitis in immunocompetent individuals without disseminated infection.

Conclusions

- Our case uniquely illustrates a diagnosis of cryptococcal colitis in immunocompetent individual via histopathology following negative PCR testing, a rare finding.
- Although very difficult to diagnose in immunocompetent patients, Cryptococcus colitis should remain in the differential for otherwise immunocompetent individuals with chronic diarrhea with conditions that impair the immune system such as diabetes, chronic kidney disease, and cirrhosis.

Disclaimer

The views expressed herein are those of the authors and do not reflect the official policy or position of the Department of the Army, Department of the Air Force, Department of Defense, or the US Government. The authors are employees of the US government. This work was prepared as part of their official duties and, as such, there is no copyright to be transferred.

References

- Maziarz EK, Perfect JR (2016) Cryptococcosis. Infect Dis Clin N Am 30:179–206
- Osawa R, Singh N (2010) Colitis as a manifestation of infliximab-associated disseminated cryptococcosis. Int J Infect Dis 14:e436–e440
- Sciaudone G, Pellino G, Guadagni I, Somma A, D'Armiento FP, Selvaggi F (2011) Disseminated Cryptococcus neoformans infection and Crohn's disease in an immunocompetent patient. J Crohn's Colitis 5:60–63
- Chavapradit N, Angkasekwinai N (2018) Disseminated cryptococcosis in Crohn's disease: a case report. BMC Infect Dis 3:1–5
- Praneenarat S (2014) Fungal infection of the colon. Clin Exp Gastroenterol 7:415–426