Rare Presentation of Disseminated Histoplasmosis and CMV with GI Involvement

Priscila Olague, MD[1]; Mohammed Hamid, MS[1]; Kevin Yu, MD[1]; Zhenjian Cai, MD[2]; Meaad Shitawi, MD[2]

[1] Department of Internal Medicine, University of Texas Health Sciences Center at Houston; [2] Department of Pathology, University of Texas Health Sciences Center at Houston

Introduction

Histoplasmosis is primarily a respiratory disease but can progress to systemic disease in certain populations. Severe disseminated histoplasmosis (DH) can present in immunosuppressed patients as shock and multi-organ system failure. GI histoplasmosis is common in patients with DH, present in about 50-70% of patients however only detected in 3-12% of those patients[1]. Co-infection with opportunistic pathogens occurs in up to 51% of patients with DH[2]. We present a case of an immunocompromised patient with a history of HIV/AIDS who developed septic and hemorrhagic shock secondary to DH and CMV with GI involvement.

Case Report

Patient was a 40-year-old male with a past medical history of untreated HIV/AIDS and homelessness who was found unresponsive. On presentation, the patient was hemodynamically stable with CD4 count of 8 and severe pancytopenia. CT A/P revealed retroperitoneal lymphadenopathy and splenomegaly, and chest x-ray had clear lung fields. Lumbar puncture revealed low glucose and a WBC count of 4. In addition to broad-spectrum antibiotics, acyclovir, and amphotericin B were initiated. Clarithromycin and ethambutol were started due to concern for progressive cytopenia secondary to MAC infection. Patient's status continued to deteriorate, requiring vasopressors. On day 4 of admission, the patient was noted to have hematochezia with a drop in hemoglobin.

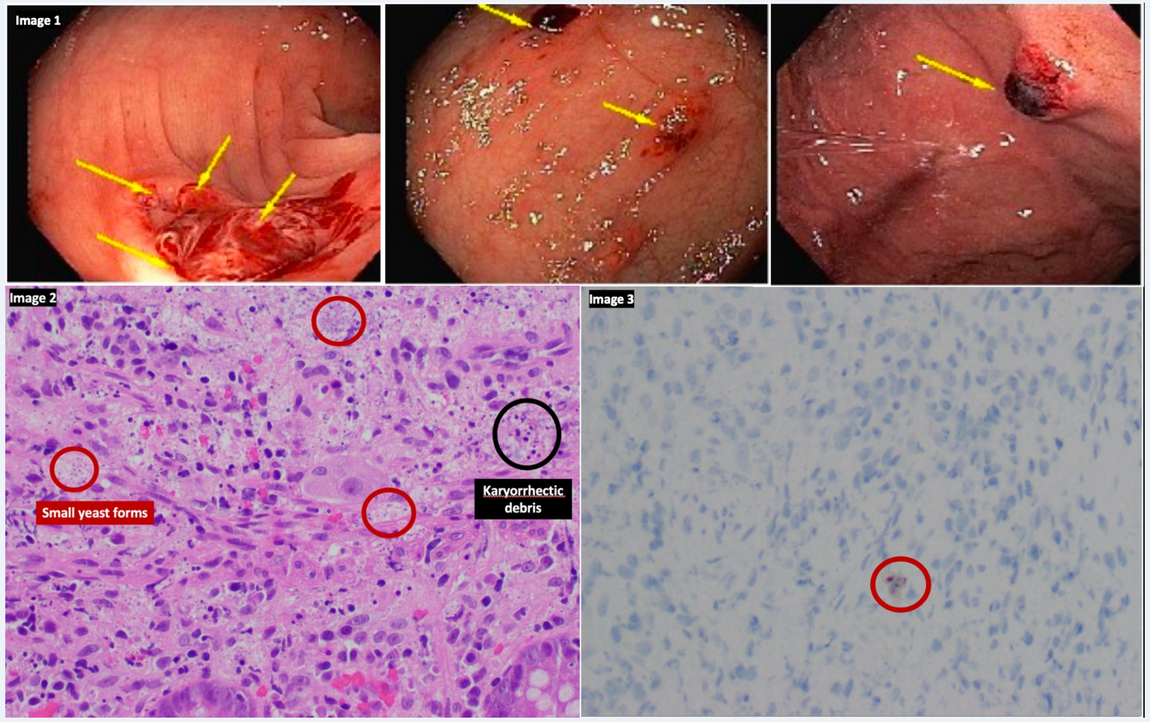

Image 1: Bleeding ulcer with heaped up borders and oozing mucosal lesions. **Image 2:** Small yeast forms. **Image 3:** Scattered CMV positivity.

Case Report (cont.)

Endoscopies revealed several lesions that were cultured and biopsied (Image 1). Disease was diffuse and not amenable to endoscopic therapy. The patient was too unstable for surgical intervention. Hematochezia persisted; the patient continued to deteriorate despite aggressive supportive therapies. GI pathology had morphology consistent with histoplasmosis in duodenum, cecum, and colon (Image 2), as well as a positive CMV stain in the cecum (Image 3). Urine histoplasmosis antigen was positive. Ultimately, the patient was transitioned to hospice and died shortly after.

Discussion

This patient had two rare presentations, GI and meningitic histoplasmosis and co-infection with CMV. Rarely described, there are about 5 case reports about CMV and Histoplasmosis co-infection written up until 2017[3]. The patient was severely immunocompromised and warranted extensive infectious disease workup and initiation of broad-spectrum antimicrobials. Despite appropriate treatment, the patient's condition worsened. This case emphasizes the high mortality associated with untreated opportunistic infections as well as the need to recognize rare GI manifestations in the setting of AIDS.

References

1. G. Psarros and C. A. Kauffman, "Colonic histoplasmosis," Gastroenterology and Hepatology, vol. 3, no. 6, pp. 461–463, 2007.

2. Caceres, D. H., Tobón, Á. M., Restrepo, Á., Chiller, T., & Gómez, B. L. (2018). The important role of co-infections in patients with AIDS and progressive disseminated histoplasmosis (PDH): A cohort from Colombia. Medical Mycology Case Reports, 19, 41–44. https://doi.org/10.1016/j.mmcr.2017.07.004

3. Gonzales Zamora JA, Espinoza LA. Histoplasma and Cytomegalovirus Coinfection of the Gastrointestinal Tract in a Patient with AIDS: A Case Report and Review of the Literature. Diseases. 2017;5(4):30. Published 2017 Dec 8. doi:10.3390/diseases5040030