



Crohn's Disease or Histoplasmosis? A Case of Severe Disseminated Histoplasmosis Mimicking Crohn's Disease

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Introduction

Histoplasmosis, a mycotic infection caused by strains of *Histoplasma*, is known to affect people worldwide. The clinical presentation is variable, ranging from asymptomatic to disseminated disease. Disseminated histoplasmosis can involve any organ system and often mimics other disease processes, often leading to misdiagnosis and delays in treatment.

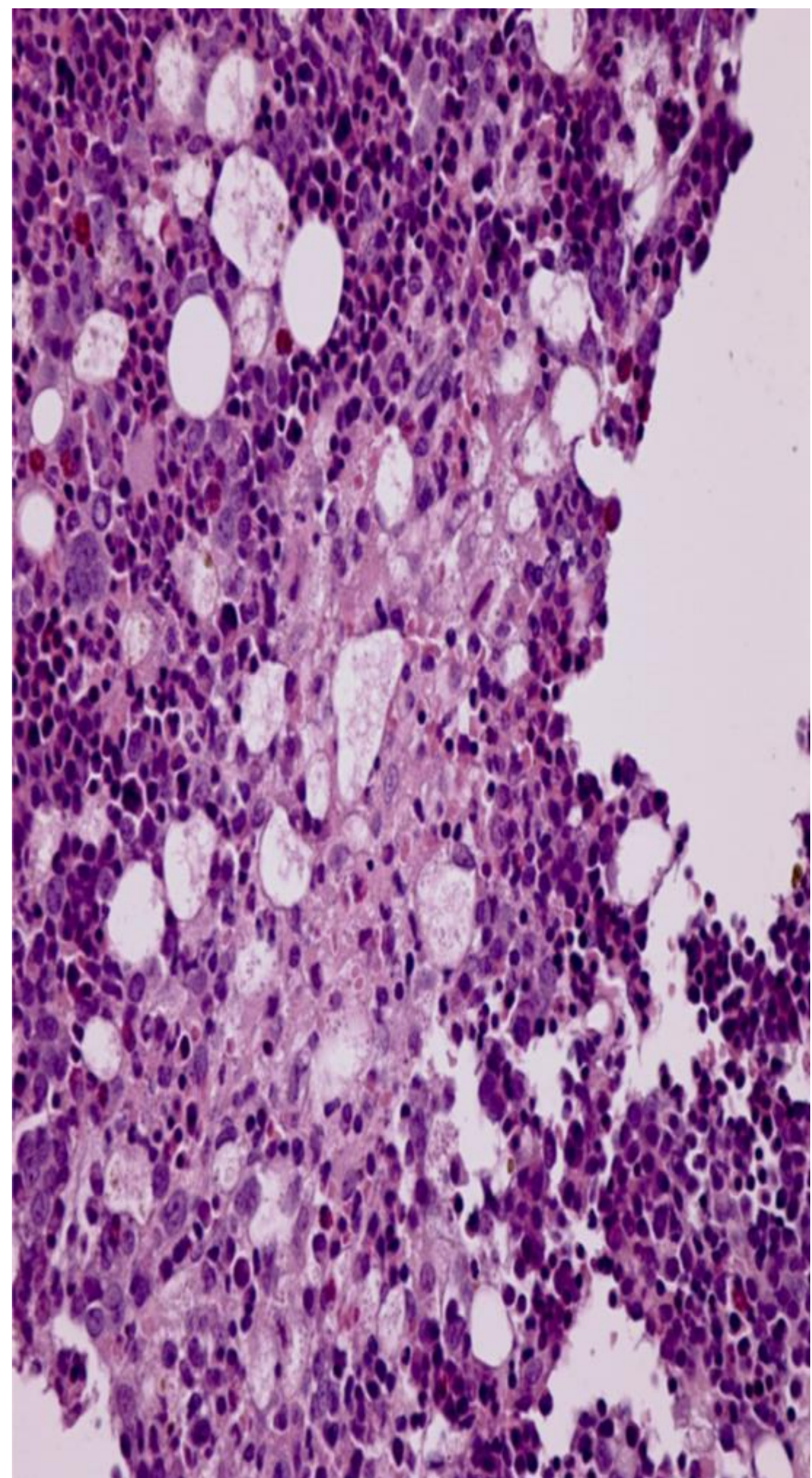


Fig. 1: H&E stained sample of resected colon showing small 1-2mm histoplasma organisms in the histiocytes.

Case Description

A 38-year-old Ecuadorian female initially presented to an outside hospital (OSH) with abdominal pain and a gastrointestinal (GI) bleed and was diagnosed with presumed Crohn's disease. She was treated with mesalamine and corticosteroids but despite adherence to treatment, her symptoms continued to worsen, requiring rehospitalization to the OSH for presumed flares. Her last "flare" was complicated by *E. coli* bacteremia with computerized tomography (CT) scan images concerning for an intrabdominal abscess as well as uncontrollable GI bleeding requiring a total colectomy. Post-operatively, she developed an acute abdomen, worsening septic shock and acute respiratory failure requiring intubation. She was transferred to our facility where a CT scan showed bilateral consolidations of the lungs, ascites, peritonitis, bilateral renal abscesses, and pneumoperitoneum requiring an exploratory laparotomy with a washout and enterotomy repair. Pathology samples of the resected colon from the OSH demonstrated histoplasma-laden macrophages present in the vascular lumina throughout the colon consistent with severe histoplasma associated colitis. Endoscopic biopsies obtained from the OSH demonstrated diffuse inflammation with several noncaseating granulomata. Histoplasma urine and serum antigen were also positive; thus, the patient was started on IV amphotericin B. Due to her severe infection and surgical complications, she was continued on amphotericin B for a total duration of 3 months and was transitioned to oral itraconazole to complete a year of therapy. She was eventually discharged to a subacute rehab

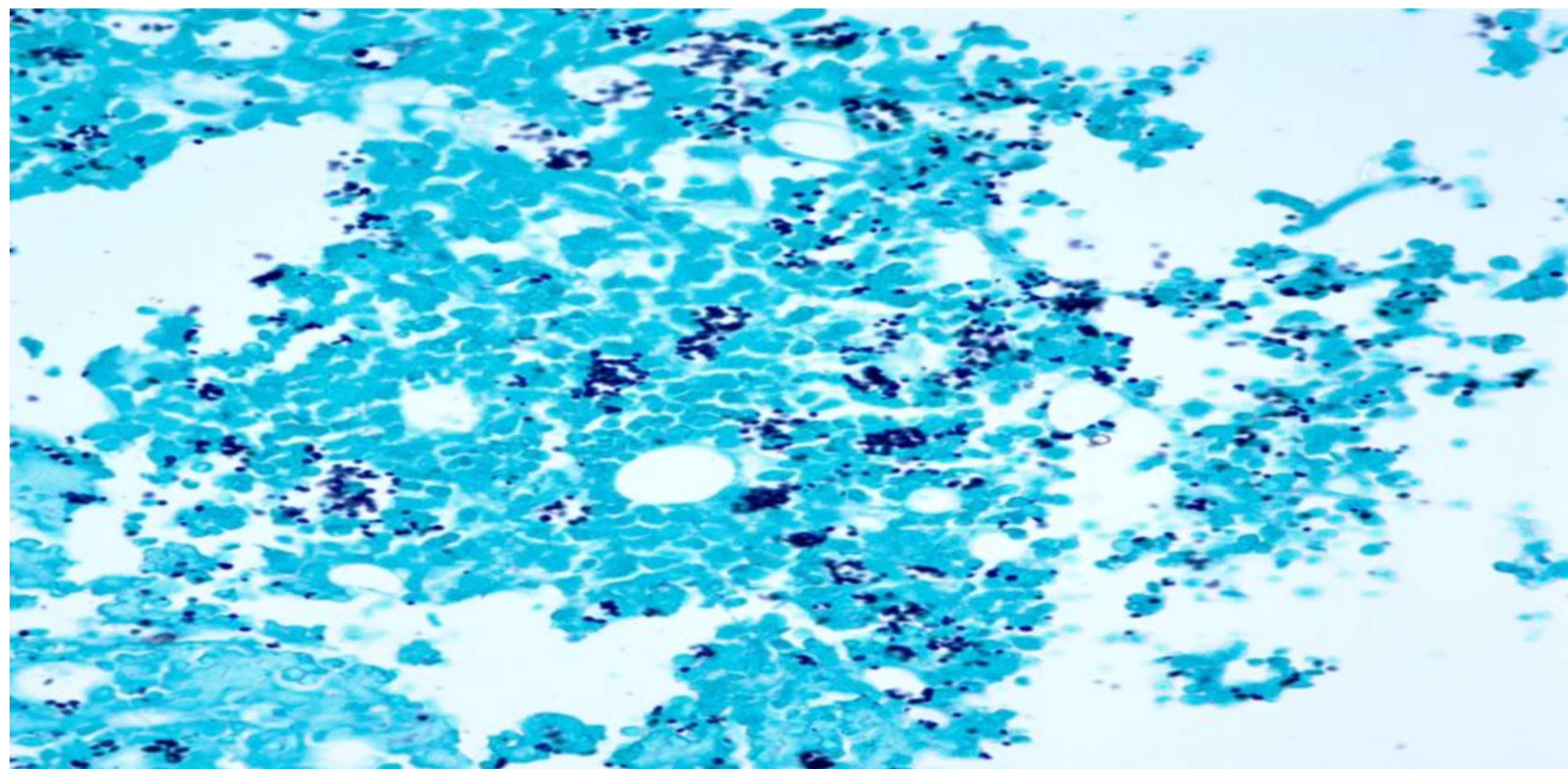


Fig. 2: Image of a Gomori methenamine silver (GMS) stain sample of the resected colon demonstrating histoplasma organisms throughout the sample consistent with severe histoplasma associated colitis.

Discussion

Intra-abdominal histoplasmosis has many clinical, endoscopic, and histologic similarities with inflammatory bowel disease (IBD). Treatment with immunosuppressants in the setting of undiagnosed histoplasmosis can lead to further dissemination with potentially catastrophic results. Our patient likely had gastrointestinal histoplasmosis and was misdiagnosed with Crohn's disease and developed further dissemination as a result of receiving immunosuppressive treatment. Histoplasma is known to be endemic to Ecuador, the native country of our patient and from where she likely acquired her infection. Such a case enhances the medical recognition of the vast presentation of histoplasmosis and illustrates the importance of ruling out endemic infections prior to initiating immunosuppressive therapies.

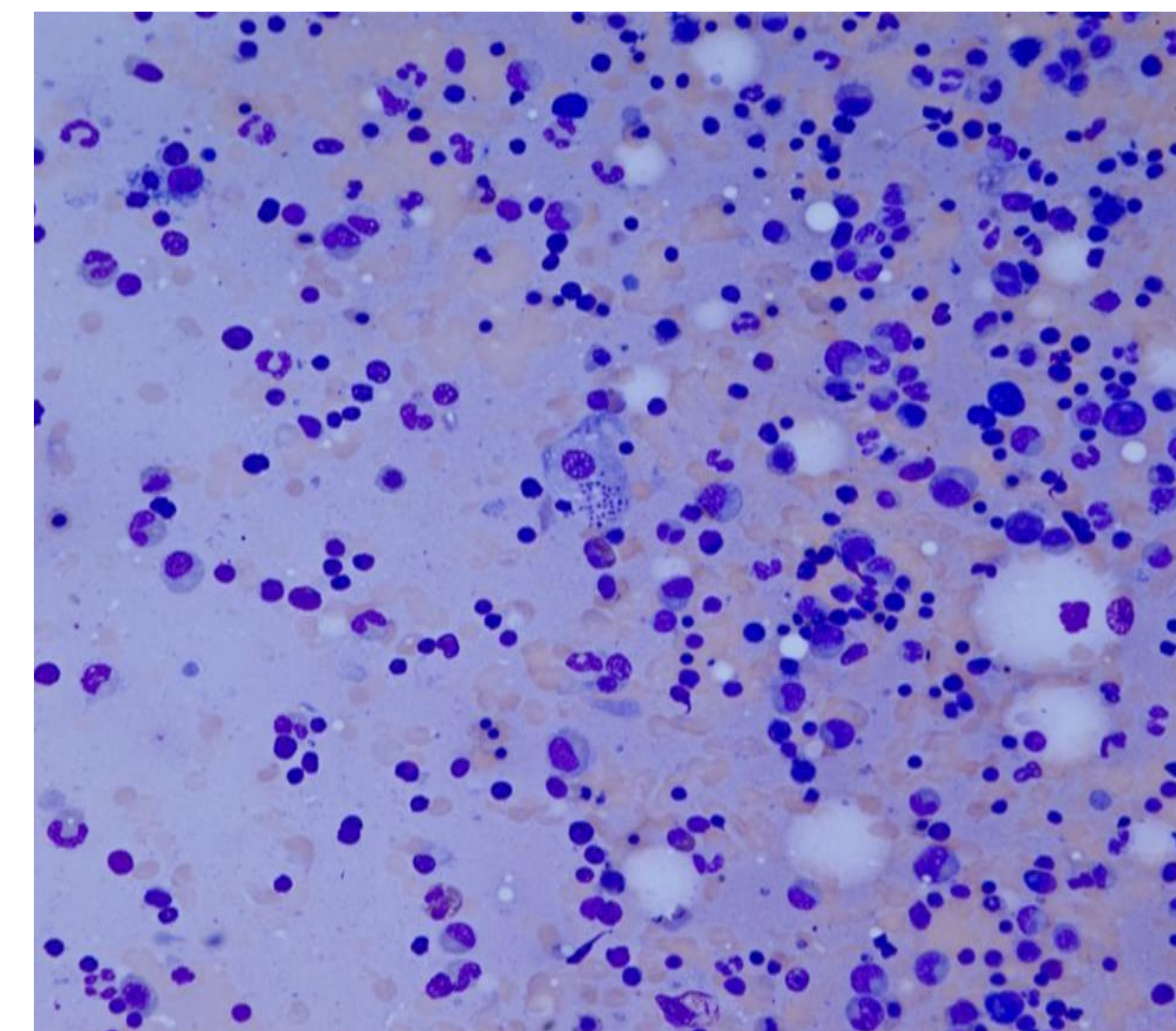


Fig. 3: Image of a Giemsa stained sample of the resected colon demonstrating histoplasma organisms in macrophages.