Co-occurrence of Cryptococcal Meningitis and Rotavirus Enteritis in a Patient with HIV/AIDS: A Case Report

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Cryptococcal meningitis is a severe opportunistic infection that affects individuals with advanced HIV/AIDS, particularly those with CD4 counts under 100 cells/μL. It remains a leading cause of morbidity and mortality, especially in Sub-Saharan Africa, despite antiretroviral therapy (ART). Similarly, rotavirus infections while mild in healthy adults can cause severe infections in immunocompromised populations, including HIV-infected individuals. Emerging evidence suggests that rotavirus-related gastroenteritis in HIV patients remains underreported. This case report describes the rare co-occurrence of cryptococcal meningitis and rotavirus enteritis in a patient with newly diagnosed HIV/AIDS, emphasizing the challenges of managing multiple opportunistic infections in severely immunocompromised patients.

A 36-year-old male with recently diagnosed HIV/AIDS was admitted to the University Medical Center New Orleans (UMCNO) after experiencing a syncopal episode. He reported dizziness, abdominal pain, vomiting, and decreased appetite but denied fever or head discomfort. On presentation, the patient was mildly hypotensive but hemodynamically stable. He had recently completed induction therapy for cryptococcal meningitis with amphotericin B and flucytosine and was on maintenance fluconazole. However, he presented with a relapse of cryptococcal meningitis, confirmed by high cerebrospinal fluid (CSF) opening pressure, positive cryptococcal antigen, and abnormal CSF parameters (elevated protein, low glucose, pleocytosis). Additionally, he developed an acute kidney injury (AKI) and persistent diarrhea, diagnosed as rotavirus enteritis through stool testing. His hospital course required aggressive fluid resuscitation, electrolyte management, and reinduction therapy for cryptococcal meningitis. ART initiation was postponed due to concerns about immune reconstitution inflammatory syndrome (IRIS).

This case highlights severe immunosuppression in a patient with a CD4 count of 46 cells/μL and the challenges of managing concurrent opportunistic infections. Reinduction therapy for cryptococcal meningitis was necessary, while vigilant monitoring for complications such as AKI, exacerbated by amphotericin B toxicity and dehydration from diarrhea, was critical. The co-occurrence of rotavirus enteritis, though rare in adults, is consistent with reports indicating higher prevalence in immunocompromised individuals. Persistent diarrhea and anorexia complicated nutritional management, requiring aggressive hydration, appetite stimulants, and IV fluids.

Despite cryptococcal meningitis being treatable, relapses remain a risk in severely immunocompromised patients, necessitating careful monitoring and adherence to treatment. The rare co-occurrence of rotavirus enteritis further complicated care, highlighting the importance of comprehensive evaluation and supportive measures to address malnutrition,

dehydration, and electrolyte imbalances. Early infection management, appropriate timing of ART, and holistic care are critical to improving outcomes in this vulnerable population.

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