



Delays in Cryptococcal Meningitis Diagnosis and Care: A Mixed Methods Study in Rural Uganda

ORIGINAL RESEARCH

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ABSTRACT

Background: Cryptococcal meningitis (CM) remains a major cause of mortality for HIV-infected persons in sub-Saharan Africa, despite widespread access to antiretroviral therapy. Delays in CM diagnosis and treatment contribute to high mortality, with patients often arriving “too late” for treatment to be effective. Little is known about patient-related delays and their experiences with CM.

Objectives: This study seeks to identify the factors related to delays in diagnosis and care among patients with cryptococcal meningitis.

Methods: A convergent mixed-methods approach was used to understand delays related to diagnosis and treatment of CM among patients admitted to Lira Regional Referral Hospital in rural northern Uganda. We collected data from February to March 2020 using surveys followed by semi-structured interviews from 20 CM patients who survived hospitalization and 20 family members of deceased patients during February 2017–November 2019. Interviews were audio-recorded, transcribed, and thematically coded for analysis.

Findings: Delays to CM care were related to 1) self-medication, 2) lack of CM education, 3) seeking treatment multiple times at health centers with 4) missed/misdiagnosis, and 5) cultural factors. Among patients who died, 70% sought care ≥ 3 times, while those who survived, 35% of sought care ≥ 3 times before CM diagnosis. Only 10% of patients and 40% of family members knew what caused CM, indicating a lack of knowledge.

Conclusions: Patients sought medical care for CM symptoms, but several factors contributed to CM diagnosis and care delays. Many of these factors relate to a lack of CM education and knowledge among patients and providers. A CM awareness campaign for the general public, targeted education for HIV patients, and continuing medical education for healthcare providers can decrease delays and improve outcomes.

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