

Mortality After Clinical Management of Aids-Associated Cryptococcal Meningitis in Kenya

R Baldassarre, R Mdodo, E Omonge, W Jaoko, J Bradley, P Pappas, I Abans, S Odera, A Suleh, PE Jolly

Abstract

Background: Cryptococcal meningitis (CM) is an increasingly prevalent infection among HIV/AIDS patients and is becoming a leading cause of morbidity and mortality in Africa. The short-term prognosis and management of patients with CM may be improved by identifying factors leading to mortality in patients with CM.

Objective: To assess the clinical management and mortality associated with cryptococcal meningitis (CM) in patients with acquired immunodeficiency syndrome (AIDS) in Kenya.

Design: A retrospective study.

Setting: Kenyatta National Hospital and Mbagathi District Hospital, between August 2008 and March 2009.

Subjects: Seventy six HIV-infected patients confirmed to be CM positive.

Results: Results show that 30 (40%) of 76 patients diagnosed with CM died during hospitalisation after a median hospital stay of ten days (range, 2-73 days). Significant predictors of mortality in the univariate model were Mycobacterium tuberculosis (TB) co-infection ($P = 0.04$), having been diagnosed with a co-morbid condition such as diabetes mellitus, oral candidiasis and hypertension ($P = 0.01$), and a low median CD4+ T lymphocyte count ($P < 0.001$). The multivariable model revealed that male sex, previous or current anti-retroviral therapy (ART) at admission and CD4+ T lymphocyte count less than 50 were significant predictors of mortality. Conversely, a minimum of two weeks of amphotericin B treatment ($P < 0.001$), initiation of ART ($P = 0.007$) and monitoring of creatinine and electrolyte levels ($P = 0.02$) were significantly associated with survival in the univariate model.

Conclusions: CM-associated mortality in Kenya is high; there is an opportunity to improve the management and the short-term outcomes of hospitalised HIV positive patients with CM in Kenya.