

**TREATMENT OUTCOMES OF AIDS ASSOCIATED CRYPTOCOCCAL
MENINGITIS USING EMPHOTERICIN B AND FLUCONAZOLE AT MOI
TEACHING AND REFERRAL HOSPITAL, ELDORET, KENYA**

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BY

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE AWARD OF MASTER OF MEDICINE IN
INTERNAL MEDICINE**

**SCHOOL OF MEDICINE
MOI UNIVERSITY**

MARCH 2010

MOI UNIVERSITY



20061529

ABSTRACT

Background: - Studies on treatment outcomes of AIDS associated cryptococcal meningitis using amphotericin B and fluconazole vary greatly. Internationally accepted induction therapy is expensive and unavailable in developing countries like Kenya.

Objectives: - To determine the prevalence of AIDS-associated cryptococcus meningitis among HIV-infected patients presenting with meningitis and observe 14-day treatment outcomes using amphotericin B compared to fluconazole.

Study Design- a prospective cohort study.

Setting: Moi Teaching and Referral Hospital (MTRH) medical wards, Eldoret, Kenya

Subjects- HIV-infected inpatients ≥ 13 years diagnosed with cryptococcal meningitis.

Methods- Lumbar puncture was performed on HIV-infected patients admitted with signs and symptoms of meningitis. Cerebrospinal fluid (CSF) was subjected to tests for *Cryptococcus neoformans*, including Indian ink stain, cryptococcal antigen (CRAG) test and fungal culture. Patients diagnosed with cryptococcus meningitis were started on either amphotericin B (50mg/day) or fluconazole (800mg/day) by the admitting physician depending on drug availability. Patients were consecutively enrolled and followed for 14 days, at which point acute mortality, mycological, clinical, combined clinical/mycological cure and drug related adverse reactions were documented.

Results – Between June 2007 and February 2008, 273 HIV-infected patients (131(48%) males, median age 35 years) were evaluated of who 96 (35%) had cryptococcal meningitis. Fifty (52%) were males, median age 36 and median CD4 cell count 61 cells/ml. Headache was reported in 79%, fever in 32%, signs of meningism in 45% and focal neurological deficits in 13% of the patients. Mycological, clinical and combined clinical & mycological success rates were 94%, 76% and 73.8% with amphotericin B versus 64.3%, 51% and 45% with fluconazole (p values: 0.019, 0.0115 and 0.00350 respectively). Overall mortality was 15.4%. Acute mortality was 9.5% in the amphotericin B group and 20.4% in the fluconazole group (p= 0.1513).

Conclusion: The prevalence of AIDS associated cryptococcal meningitis among HIV-infected patients presenting with meningitis at MTRH was 35%. Patients treated with amphotericin B in the induction period had favorable clinical, mycological, combined clinical and mycological and mortality outcomes than patients treated with fluconazole.