

**AETIOLOGY OF MENINGITIS AT THE MOI TEACHING AND REFERRAL
HOSPITAL, ELDORET, KENYA**

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**A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF MEDICINE IN
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ABSTRACT

Background: Meningitis is a common disease associated with high morbidity and mortality if not treated appropriately. In sub-Saharan Africa, HIV has had a significant impact on the epidemiology of meningitis with *Cryptococcus neoformans* assuming a more prominent role relative to traditionally commoner pathogens such as *Streptococcus pneumoniae* and *Neisseria meningitidis*.

Objectives: This study aimed to: (1) determine the common causes of meningitis amongst patients admitted to the general medical wards of the Moi Teaching and Referral Hospital (MTRH); and (2) determine the prevalence of HIV infection amongst patients with meningitis at MTRH.

Study design: A cross-sectional study.

Setting: The adult general medical wards of the MTRH, a tertiary referral hospital in Eldoret, western Kenya

Subjects: Male and female patients aged 13 years and above who were admitted to the general medical wards with suspicion of meningitis based upon symptoms and clinical signs.

Methods: Consecutive patients admitted with suspected meningitis on clinical basis had CSF analyzed (cytology, chemistry and microbiology), and HIV test done. Descriptive statistics were performed for continuous variables while frequency listings were used for categorical variables.

Results: Between August and October 2007, a total of 81 patients (50 female; mean age 34 years; 71 HIV-infected) with a clinical diagnosis of meningitis were studied, representing 6.6% (81/1217) of all admissions to the adult general medical wards. The commonest causes of meningitis identified were as follows: *Cryptococcus neoformans* 34/81 (42%); *Mycobacterium tuberculosis* 6/81 (7%); and *Streptococcus pneumoniae* 3/81 (4%). Seven (9%) patients had normal CSF. The cause of meningitis remained undetermined in 31 (38%) patients.

Conclusion and recommendation: *Cryptococcus neoformans* is a common cause of meningitis at the MTRH. Majority of patients with meningitis were HIV-infected. A study to assess the usefulness of primary cryptococcosis prevention therapy amongst HIV-AIDS patients would be useful.