

**SERUM CRYPTOCOCCAL ANTIGEN LEVELS IN HIV INFECTED PATIENTS  
ASYMPTOMATIC OF MENINGITIS IN TWO HOSPITALS IN NAIROBI KENYA.**

By:

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W64/64007/2010

A project report submitted in partial fulfillment for the degree of Master of Science Tropical and Infectious diseases (MSc TID) University of Nairobi.

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**DECLARATION**

I declare that this project is my original work and has not been presented for an award of a degree or any other award in this or any other University to the best of my knowledge.

**Dr Mutinda Muendo.**

Signature..... Date .....

**Supervisors' approval.**

This project has been submitted for examination with our approval as supervisors.

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## **ABSTRACT.**

**Background:** Cryptococcal meningitis is an opportunistic infection seen in immunosuppressed patients that arises after inhalation of yeast cells found in the environment. The disease prevalence has risen over the last three decades in concert with HIV/AIDS prevalence. Due to high fatality rates, despite initiation of treatment, current management efforts are focused on preventive measures. One of these measures involves early detection of cryptococcal infection and administration of primary prophylaxis. The World health organization recommends screening of HIV infected patients in populations with high prevalence of cryptococcal antigenaemia (levels of >3%). The study was aimed at getting the prevalence of cryptococcal antigenaemia in HIV infected patients asymptomatic for meningitis.

**Objective:** To determine serum cryptococcal antigen levels in HIV infected patients who were asymptomatic for meningitis and attending comprehensive care clinics in Kenyatta National hospital and Mbagathi District hospital.

**Methods:** The study population encompassed 110 HIV infected patients asymptomatic of meningitis attending comprehensive care centers in Kenyatta national hospital and Mbagathi district hospital. An interviewer administered questionnaire was used to collect data on socio-demographic factors and medical history. Blood samples were obtained from participants to determine serum cryptococcal antigen levels, CD4 + counts and HIV viral loads.

**Results:** The analysis determined that none of the 110 HIV infected patients on follow up at comprehensive care centers in Kenyatta National hospital and Mbagathi district hospital were positive for cryptococcal antigen.

**Conclusion:** It appears HIV patients with normal CD4+ counts are able to sufficiently clear cryptococcal infection as demonstrated by the fact that none of the HIV patients assessed were positive for this infection. It also appears that HIV infection does not significantly alter qualitative functioning of CD4+ cells in regards to cryptococcal infection as none of the HIV positive participants appeared to have the infection in circulation.