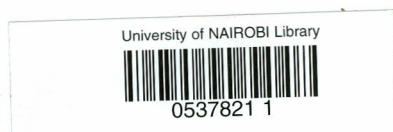


**PREVALENCE OF HERPES SIMPLEX VIRUS IN CHILDREN
PRESENTING WITH SUSPECTED MENINGITIS AND OR
ENCEPHALITIS AT KENYATTA NATIONAL HOSPITAL**

**A DISSERTATION SUBMITTED IN PART FULFILMENT FOR THE DEGREE OF
MASTER OF MEDICINE IN PAEDIATRICS AND CHILD HEALTH AT THE
UNIVERSITY OF NAIROBI.**

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ABSTRACT

Background

Herpes simplex encephalitis (HSE) is the most common cause of sporadic fatal encephalitis in the world. The incidence of HSE is about 1 case per 250000 to 500000 persons per year. The prevalence of HSE varies from 5% to 30% in various studies done in Europe and Asia. There is limited data on studies on prevalence of HSE in Africa. Untreated HSE has a mortality rate of 70%, with <3% of patients returning to normal function. Survival rates are improved if treatment with Acyclovir is initiated within 4 days after the onset of the illness. Detection of herpes simplex virus (HSV) in the cerebrospinal fluid (CSF) through polymerase chain reaction (PCR) is the diagnostic modality of choice for HSE. Only 14% of children admitted at Kenyatta National Hospital (KNH) with suspected meningitis or encephalitis have confirmed bacterial causes.

Objectives

The primary objective was to determine the prevalence of HSV in children admitted in KNH with suspected meningitis or encephalitis. While the secondary objective was to determine the clinical and CSF biochemistry findings associated with HSV encephalitis or meningitis.

Methods

A cross sectional study where consecutive sampling method was used on children aged between 1 month and 12 years who were presenting with suspected meningitis or encephalitis over a period of three months at Paediatrics Filter Clinic (PFC) KNH. Meningitis was defined as patients presenting with headache, fever and neck stiffness and any of the following signs: confusion or altered consciousness, convulsions, irritability, lethargy, drowsiness, coma and bulging anterior fontanel. Encephalitis was defined as patients with altered level of consciousness plus two of the following: fever $\geq 38^{\circ}\text{C}$, focal CNS finding (seizures, hemiparesis, nerve palsies and abnormal movements) and pleocytosis associated with illness clinically compatible with meningitis.