

6th Euro Virology Congress and Expo

March 10-12, 2016 Madrid, Spain

Molecular detection of Human *cytomegalovirus* (HCMV) among congenital infants in Khartoum state, Sudan

Khalid Abdallah Mohammed Enan

The Ministry of Higher Education and Scientific Research, Sudan

Human *cytomegalovirus* (HCMV) infection still represents the most common with potentially serious viral complication in humans and is a major cause of congenital anomalies in infants. This study was aimed to detect HCMV in infants with congenital anomalies. Study subjects consisted of infants born with neural tube defect, hydrocephalus (HC) and microcephaly. Fifty serum specimens (20 males, 30 females) were collected from different hospitals in Khartoum state. The sera were investigated for *Cytomegalovirus* specific immunoglobulin M (IgM) antibodies using enzyme-linked immunosorbent assay (ELISA) and for *Cytomegalovirus* DNA using polymerase chain reaction (PCR). Out of the 50 sera tested, one patient's (2%) sample showed HCMV IgM but with no detectable DNA by using PCR, another 4 (8.2%) sera were positive for HCMV DNA by using PCR but with no detectable IgM using ELISA. Various diagnostic techniques should be considered to evaluate HCMV disease and routine screening for HCMV should be introduced for pregnant women in this setting. It is vital to initiate further research work with many samples from different area to assess prevalence and characterize HCMV and evaluate its maternal health implications.

khalid.enan@gmail.com

Effect of HAART on incidence of opportunistic infections among HIV positive adults in public health institutions of Arba Minch town: A retrospective cohort study

Diresigne Misker Abyu¹ and Meaza Demissie²

¹Arba Minch University, Ethiopia

²Addis Continental Institute of Public Health, Ethiopia

Background: Studies of Antiretroviral Therapy program in Africa have shown high incidence rate of opportunistic infections in both Antiretroviral Therapy receiving and Pre ART Human Immunodeficiency Virus infected patients. However, incidence of opportunistic infections and factors that contribute for development of it were poorly described in Ethiopia especially in the study area.

Objective: To determine the effect of HAART on incidence rate of opportunistic infections among HIV-positive adults in Public Health facilities of Arba Minch town.

Method: Retrospective cohort study was used and the required sample size was 464. Study participants were selected randomly from the list of adult people living with HIV attending the public health facilities for ART. Univariate analysis was used to describe patients' baseline and follow up characteristics. Kaplan-Meier survival and log rank test were used to estimate survival and compare survival curves respectively. Cox proportional-hazard regression model was used to determine independent predictors of incidence of opportunistic infections.

Result: A total of 464 patients (232 in each cohort) contribute for 898.12 person years of follow up. The incidence of opportunistic infections was 55.8 per 100 person year and 3.4 per 100 person year of follow up in pre ART and HAART cohorts respectively. Being on HAART decreased occurrence of opportunistic infections by 93%. In contrary being male, being widowed, substance use, rural residence and having baseline CD4 count of 350-499 cells/ μ l are independent predictors of increased risk of opportunistic infections.

Conclusion: The incidence of opportunistic infection was higher in pre ART cohort. Male gender, being widowed, substance use, rural residence and having baseline CD4 count of 350-499 cells/ μ l were independent predictors of increased risk of opportunistic infections.

diresmisker@gmail.com