

ASSOCIATION BETWEEN HEPATITIS B AND SYPHILIS INFECTION AMONG ADULTS RECEIVING ANTIRETROVIRAL THERAPY IN ZAMBIA

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Background: Hepatitis B infection (HBI) is a major global health problem. Death usually results from cirrhosis and liver cancer. Despite the existence of effective vaccine, sub-Saharan Africa (SSA) have a disproportionate HBI among people living with HIV (PLWH). Furthermore, there is insufficient information on the epidemiology of hepatitis B in SSA. Hence, this study aimed at determining the burden of hepatitis B and its association with syphilis infection among adult patient receiving antiretroviral therapy in Livingstone, Zambia.

Methods: We conducted a cross-sectional study from April to November, 2019 comprising 633 PLWH receiving ART. Data collected included sociodemographic information, physical measurements, laboratory and clinic information. Samples were tested for serum hepatitis B and syphilis by use of rapid tests. For statistical analysis, we employed descriptive statistics and logistic regression.

Results: Of the 633 recruited participants, 63.7% were females and the median age was 44 years (IQR 37, 52). Median (IQR) time on antiretroviral therapy (ART) was 108 months (60, 144). The prevalence of hepatitis B and syphilis infection was 6.8% (43/632) and 17.7% (112/633), respectively. Hepatitis B/syphilis co-infection was 2.5% (16/632). After controlling for age, gender, CD4 count, viral load, white blood cells, duration on ART and regimen type, syphilis was significantly associated with hepatitis B infection (odds Ratio 3.42; 95% confidence interval 1.74, 6.74).

Conclusion: Hepatitis B and syphilis infection is prevalent among adult ART patients in Livingstone, Zambia. Syphilis infection was found to be significantly associated with hepatitis B. Therefore, there is need for intensified screening of syphilis and hepatitis B among PLWH in resource limited settings.

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