



Prevalence of HIV-HBV coinfection and liver function profiles in HIV infected HAART active adult patients at two central hospitals in Harare, Zimbabwe.

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Introduction:

The instigation of Highly Active Antiretroviral Therapy (HAART), there has been marked and sustained reduction in AIDS related mortalities as a result of wide spread availability of more effective, simpler and better tolerated regimens (1;2). Despite the dramatic increase in longevity of HAART active patients, liver disease and hepatocellular carcinoma (HCC) especially those associated with Hepatitis are becoming increasingly major causes of non-AIDS related mortality representing 10-15% of deaths in human immunodeficiency virus (HIV) infected patients(3;4). Coinfection with HIV and hepatitis B virus (HBV) is now common due to shared routes of transmission.Of the estimated 40 million HIV infected people worldwide, 10% have chronic hepatitis B. (8). Sub-Saharan Africa remains the region most affected by HIV, accounting for 27, 4 million HIV positive people. In Zimbabwe 1.4million people are HIV positive and 750 000 are on highly active antiretroviral therapy. Considerable attention has been focused in administering HAART and effective management of patient, only limited data describes the prevalence of HIV-HBV coinfection and their liver function profiles in Zimbabwe. The study was to determine the prevalence of HBV/HIV coinfection, percentage of HAART active patients who were once exposed to HBV and to determine liver function profiles in HIV infected patients attending two OI clinics in Harare.

Method:

Cross-sectional study was conducted at two referral hospitals O I Clinics in Harare (Parienyatwa Group of Hospitals and Harare Central Hospital). 108 consecutive HIV infected patients were screened for Hepatitis B virus using NOVA one step HBV multi-panel test kit (HBsAg, HBsAb, HBeAb and HBcAb). LFTs (Alanine aminotransferase (ALT), Aspartate aminotransferase (AST), Gamma glutamytransferase (GGT) and Total-bilirubin (T-Bil)) were done using Beckman Coulter AU680 Chemistry analyser manufactured by Beckman Coulter, Inc, (Mishima, Japan).

Results:

The demographic and clinical characteristics of the 108 patients were as follows.

Age: 41.25±9.94 years (range: 18-42)

AST: 33.38±17.56U/L (range: 14-133)

ALT: 28.09±19.57U/L (range: 9-119)

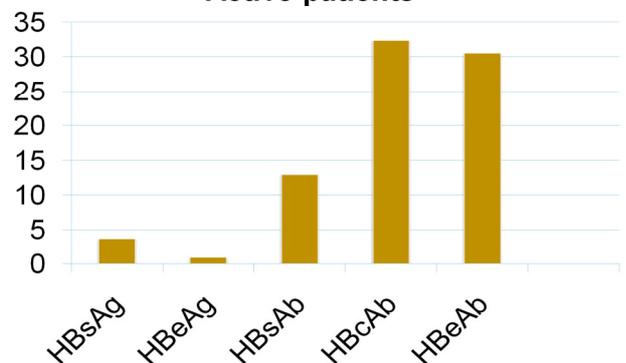
GGT: 60.66±66.66U/L (range: 9-394)

T-Bil: 13.31±30.68U/L (range:-2-285)

The mean level of liver function tests were all in the normal range.

3.7% (4/108) of the 108 HIV –positive patients on HAART were coinfectd with HBV.

HBV Serological Profiles in HAART Active patients



In this study 83 participants had at least one HBV marker (excluding HBsAg and HBsAb) giving an overall exposure of 76.8%. The high prevalence of previous exposure to HBV shows that although a prevalence of 3.7% might be low, it is of clinical significance.

Recommendations:

HIV positive individuals are at risk of being infected by HBV as a result of shared routes of transmission.

Only 3.7% (4/108) participants were vaccinated and this shows that there is need to vaccinate all HIV positive patients since they are at increased risk of being infected by HBV.

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