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### Increased prevalence of hepatitis B virus infection among HIV/AIDS infected individuals on HAART: The sign for the inevitable

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**Background:** Hepatitis B virus co-infection with HIV is becoming a major challenge in developing countries like Ethiopia. Unfortunately, the emergence of high morbidity and mortality rate of liver related diseases after the introduction of antiretroviral treatment did not pledge researchers to develop ample evidences on this regard. Therefore, this study aims to determine the magnitude of hepatitis B virus co-infection among HIV positive individuals.

**Methods:** A comparative cross-sectional study was conducted among HIV/AIDS clients grouped based on exposure of antiretroviral initiation. Data were gathered from 760 patients' intake forms, follow-up forms and medical records supplemented by structured and pretested questionnaire. HBV infection was confirmed using Hepatitis B surface Antigen (HBsAg) rapid and confirmatory tests. Logistic regression analysis was done to identify potential determinant factors using SPSS Version 18.

**Results:** The prevalence of HBsAg among HIV infected individuals was 3.9%. This prevalence went up to 5.3% among HAART treated cases and fell down to 2.6% in case of untreated groups. In addition, males (5.8%) were at increased risk of developing HBV infection (RR=2.32 95% CI: 1.09, 4.96) when compared to their counterparts. Majority of HBsAg positivity occur among patients taking TDF-3TC combined treatment regimens.

**Conclusion:** The prevalence of hepatitis B infection among HAART initiated individuals, who are taking treatment regimens containing Lamivudin, is twice that of pre-HAART follow up patients suggesting possible emergence of drug resistance. In addition higher prevalence of HBsAg positivity among patients on TDF-3TC strengthens this claim. Hence all markers of HBV especially HBV DNA should be determined to revisit treatments or consider other combination therapies. But the risk of drug resistance remains a threat for future treatments.

#### Biography

Yared Hailaye is currently a PhD student at Addis Ababa University and lecturer at Debre Berhan University, School of medicine, Ethiopia, Ethiopia. He has completed his MSc in (Medical microbiology), Virology from Addis Ababa University. He has more than 7-year's professional experience in the field of medical, public health and research.

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