

Hepatitis B and hepatitis C viruses' infections among antiretroviral naive and experienced HIV co-infected adults

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Although antiretroviral drugs (ARV) have significantly reduced HIV/AIDS-related deaths, co-infection with hepatitis B (HBV) and hepatitis C (HCV) viruses have increasingly contributed to the morbidity and mortality associated with HIV infection. The aim of this study was to investigate existing trend and future threats of HBV and HCV co-infections with HIV and explore the relation of HBV markers among ARV-naive and experienced subjects co-infected with HIV in Ethiopia. A total of 500 frozen HIV-positive plasma and serum samples collected from ARV-naive (n=250) and experienced (n=250) subjects seeking voluntary counseling and testing and antiretroviral therapy services in Bethezata Health Services P.L.C and Bethel Teaching General Hospital were tested for HBsAg, anti-HBs, HBeAg, and anti-HCV. Of 500 subjects tested, 15 (3%), 58 (11.6%), 3 (0.6%), 18 (3.6%), 3 (0.6%), and 1 (0.2%) were positive for HBsAg, anti-HBs, HBeAg, anti-HCV, HBsAg and HBeAg, and HBsAg and anti-HBs respectively. No patient was tested positive for both HBeAg and anti-HBs, and 442 (88.4%) subjects were non-immune to HBV. Of 250 ARV-naive subjects tested, 8 (3.2%), 33 (13.2%), 2 (0.8%), 10 (4%), 2 (0.8%), and 1 (0.4%) were positive for HBsAg, anti-HBs, HBeAg, anti-HCV, HBsAg and HBeAg, and HBsAg and anti-HBs respectively. Of 250 ARV-experienced subjects tested, 7 (2.8%), 25 (10%), 1 (0.4%), 8 (3.2%), 1 (0.4%), and 0 (0%) were positive for HBsAg, Anti-HBs, HBeAg, anti-HCV, HBsAg and HBeAg, and HBsAg and anti-HBs respectively. HBV and HCV infections were not significantly different between persons who were or who were not on ARV which suggests that the two groups have equal chances to be infected with these two infectious diseases despite disease progression.

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