World Academy of Science, Engineering and Technology
International Journal of Health and Medical Engineering
Vol:11, No:06, 2017

Assessment of HIV/Hepatitis B Virus Co-Infection among Patients Living with HIV in Northern and Southern Region of Nigeria

Authors : Folajinmi Oluwasina, Greg Abiaziem, Moses Luke, Mobolaji Kolawole, Nancy Yibowei, Anne Taiwo

Abstract : Background: Occurrence of HIV infection has an adverse effect on the natural causes of Hepatitis B Viral (HBV) infection, faster progression of hepatic fibrosis demonstrated in patients with co-infection. This study was carried out to determine the incidence of HBV infection among HIV-positive patients, and to retrospectively evaluate laboratory characteristics of patients with HIV/HBV co-infection. Methods: A retrospective analysis of patient files for all HIV-infected cases followed-up and treated at 52 health facilities. Among HIV-infected cases, those with HBsAg positivity and HIV/Hepatitis B co-infection were determined. Socio demographic, alcohol or substance use, ART, CD4, Viral Load levels and treatment durations were retrospectively evaluated. Results: Of the 125 HIV-infected patients evaluated retrospectively, 17 (13.6%) had HBsAg positivity. Of these 17 cases were 11(64.7%) male and 6 (35.3%) female, with a mean age of 48.7 years. No patients had a history of alcohol or substance use. The mean duration of follow up was 28 months. 9 (52.9%) patients had negative HBV DNA at presentation while 8(47%) had positive HBV DNA, with normal ALT levels in all subjects. Among the 9 cases with negative HBV DNA who had no indication for the treatment of chronic hepatitis B. In five cases, treatment was commenced since HBV DNA was elevated in conjunction with low CD4. One patient in whom treatment was not indicated based on HBV DNA and CD4 levels in conjunction with the absence of AIDS defining clinical picture was currently being followed-up without treatment. Of the patients receiving HAART therapy, the average CD4 count at presentation was 278 cells/mm3 vs. 466 cells/mm3 at the end of 12 months. In three subjects with positive HBV DNA, a decrease in HBV DNA was noted after initiation of treatment. In four patients with negative DNA who received treatment, the HBV DNA negative status was found to remain, while one patient who did not receive treatment had elevated HBV DNA and decreased CD4 levels. Conclusion: It was shown that this group of patients with HIV/HBV co-infection, HAART was found to be associated with a decrease in HBV DNA in HBV DNA positive cases, absence of transition to positivity among those with negative HBV DNA, and with increased CD4 in all subjects.

Keywords : Hepatitis B, DNA, anti retroviral therapy, co-infection
Conference Title : ICIDE 2017 : International Conference on Infectious Disease Epidemiology
Conference Location : Toronto, Canada
Conference Dates : June 15-16, 2017