

## ABSTRACT

**BACKGROUND:** The co-existence of viral hepatitis caused by HBV and HCV has become common cause of severe liver complication and immunological impairment among HIV infected individuals. The aim of this study was to assess the seroprevalence of HBV and HCV and their correlation with CD4 and liver enzyme levels among the patients living with HIV/AIDS.

**METHOD:** A Cross-sectional study was conducted from March-August, 2017 at Thanjavur Medical College Hospital. HBV and HCV serological tests and liver enzymes as well as CD4 T cell level determination were assessed following the standard procedures. Socio-demographic data was collected by using structured questionnaire. The data was entered and statistically analysed. A P value of  $p < 0.05$  was considered as statistically significant.

**RESULT:** Among 159 study participants, the overall prevalence of HIV-viral hepatitis co-infection was 10(6.28%). The prevalence of HIV-HBV and HIV-HCV co-infections were 8(5.03%), 2(1.25%) respectively. Study participants who had HIV-HBV and HIV-HCV co-infection have relatively raised mean liver enzyme levels (ALT, AST and ALP) than HIV mono-infected once. Individuals with HIV HBV and HIV-HCV co-infection also had a lower mean CD4 levels than HIV mono-infected study participants.

**CONCLUSION:** The prevalence of HBV and HCV was higher than reports from general population of the state. Raised levels of liver enzymes and lowered mean CD4 counts were seen in HIV-HBV and HIV-HCV co-infections. These findings

underscore the importance of screening all HIV positive individuals before initiating antiretroviral treatment .Almost 80% of the patients with co-infection were unaware of the infection they had and none of them were aware of the preventive vaccines available for HBV infection. Further, data on the prevalence of HIV – VIRAL HEPATITIS co-infection were limited in tamilnadu. Hence further studies in a larger population is necessary to evaluate control measures and health care policies.

**Keywords:** HBV, HCV, HIV, CD4 T cells, Liver enzymes