

## ***Survey of serologic markers and levels of liver enzymes in Hepatitis B patients of Ahvaz city in 2014***

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### ***Abstract***

***Background and aim:*** Nearly 400 million Hepatitis B virus (HBV) patients around the world are chronic carriers. A study of the different serologic patterns of HBeAg positive and negative along with levels of liver enzymes is necessary in order to identify chronic progressive infection in HBV carriers. Therefore, this study aimed to determine the relationship between HBV serological markers and liver enzymes in chronic HBV patients.

***Methods:*** In this cross-sectional study, 71 chronic HBV patients who referred to Imam-Khomeini Hospital of Ahvaz were enrolled. HBV serological markers were tested by the ELISA method and liver enzymes were measured via biochemical. Data were analyzed using the SPSS version 21.

***Results:*** The mean age of the patients was  $38.9 \pm 13.5$  years. 27 (38%) were females and 44 (62%) were males. Mean and standard of errors of ALT, Total bilirubin and direct bilirubin were  $77.9 \pm 116.3$  U/L,  $1.11 \pm 4$  mg/dl and  $0.6 \pm 2.1$  respectively. Mean of ALT in males was significantly higher compared to that of the females ( $88.24 \pm 132.8$  U/L vs.  $61.8 \pm 84.5$ ;  $P = 0.048$ ). The average of ALT and total bilirubin were not significantly different in HBeAg positive and negative patients. But the average of direct bilirubin in 53 HBeAg-negative patients was significantly higher than in the 18 HBeAg-positive patients ( $0.73 \pm 2.46$  mg/dl vs  $0.23 \pm 0.13$  mg/dl;  $P = 0.006$ ).

***Conclusion:*** The level of liver enzymes was similar in the two groups – of positive and negative HBeAg. It is suggested that more research be carried to assess other virological markers, levels of HBV-DNA and histological changes in the liver of chronic (positive and negative HBeAg) HBV patients.

***Keywords:*** Chronic Hepatitis B, HBeAg, Liver Enzymes