

Identification of HBV and HDV prevalence in apparently healthy Mongolian population

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Aim/background: In case of Mongolia, it is believed that 70% of hepatocellular carcinoma (HCC) is caused by hepatitis viruses and approximately 1600 people are died due to HCC annually.

Method: 1158 people were included in this study. HBsAg, HBeAg and anti-HDV were analyzed by ELISA (Erba, Lisa Scan). HBV-DNAs were measured by Abbott m2000sp/m2000rt system in Liver Center and HDV-RNAs were measured by Biorad CFX96 machine in Gastroenterology department of Stanford University.

Results: While 123 (10.62%) subjects were HBsAg positive. By sex, there was detected positive for HBsAg in 11.8% of men and 9.7% of women. Smaller group of HBeAg positive (19.5%). According to the viral titer, 10,6% showed more than 20001 IU/ml, 7,3% showed 2001-20000IU/ml, and 52,8% showed lesser than 2000 IU/ml values respectively. 67,4% of HBsAg positive samples were detected as anti-HDV positive and 61% of them were positive for HDV-RNA by QPCR. The results of multivariate regression analysis for potential risk factors show that the risk factors for HBV were increased with dental treatment 4.2 times (OR=4.293 95%C.I 1.158-15.912 p=0.029) and with hemodialysis 5.1 times (OR=5.078 95%C.I 1.199-21.511 p=0.027).

Discussion: It is estimated that currently in Mongolia 201,387 people are infected with HBV and 130000 people are co-infected with HBV and HDV. Male participants had higher infection rate of HBsAg positive. In addition, dental treatment and hemodialysis increase the risk of HBV infection.