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## Epidemiological and Clinical evaluation of Hepatitis B, Hepatitis C, and delta Hepatitis viruses in Tajikistan

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Chronic HBV and/or HCV infection can progress to liver cirrhosis and hepatocellular carcinoma (HCC) [1-4]. Among 124 hepatitis patients, 84 (67.7%) were assigned into chronic hepatitis (group 1) and 40 (32.2%) into liver cirrhosis/HCC (group 2). There was no significant difference in age between both groups. The HCV was positive in only 4 of the 15 cases, suggesting that HCV RNA was degraded in these samples, while remaining 11 cases had resolved acute HCV infection. HCV infection was found to be high in both groups (group 1 = 47.6% and group 2 = 42.5%). HCV RNA was detected in 91% of cases (100% in group 1 and 70.5% in group 2). Anti-HBc was found to be high in both groups (94% and 87.5%, respectively). Although Seroprevalence of anti-HBs was very low (12.1%) in the studied population but significantly high in group 1 (16.6%) than group 2 ( $P = 0.0356$ ). The Seroprevalence of HBsAg was equally high in both groups, that is, group 1 = 40.4% and group 2 = 42.5%, whereas DNA positivity was 70.5% and 76.4%, respectively. Overall anti-HDV Seroprevalence was 23.5%, 12 out of 51 HBsAg positive cases, relatively higher in group 2 (35.2%) compared to group 1 (17.6%)  $P = 0.1990$ . HDV viremia was detected in 83.3% of cases (100% in group 1 and 66.6% in group 2). HCV genotyping was determined as HCV genotype 2c (HCV/2c) in E1 region. A total of 7.6% of cases were un-typeable by one of either method. Overall, HCV/1b was a predominant genotype (84.6%) in Tajikistan, followed by HCV/3a (7.6%), 2a (5.7%), and 2c (1.9%). HBV genotype D (HBV/D) was the predominant genotype (94.1%) in both groups, that is, group 1 = 97% and group 2 = 88.2%, followed by genotype A (2.9% and 11.7%, respectively). HBV genotypes were determined in 45 (88%) of 51 HBsAg-positive. The full genome analysis revealed that of the four HBV/D strains, two belonged to sub genotype D1, and the remaining two to sub genotype D2. All three HBV/A strains in this study were belonged to sub genotype Ae. The results of the phylogenetic genotyping were all concordant with EIA-genotyping results (Fig.).

### Recent Publications:

1. Bakarey AS, Olaniyan OD. Hepatitis B virus infection among asymptomatic residents of low income community in Ibadan, Southwest, Nigeria. *J Immunoassay Immunochem*. 2018 May 14:1-13.
2. Casey JL, Niro GA, Engle RE, Vega A, Gomez H, McCarthy M, Watts DM, Hyams KC, Gerin JL. 1996. Hepatitis B virus (HBV)/hepatitis D virus (HDV) coinfection in outbreaks of acute hepatitis in the Peruvian Amazon basin: The roles of HDV genotype III and HBV genotype F. *J Infect Dis* 174:920-926.
3. Luma HN, Eloumou SA, Ekaney DS, Lekpa FK, Donfack-Sontsa O, Ngahane BH, Mapoure YN. Sero-prevalence and Correlates of Hepatitis B and C Co-infection Among HIV-infected Individuals in Two Regional Hospitals in Cameroon. *Open AIDS J*. 2016 Nov 3;10:199-208.
4. Farooq A, Waheed U, Zaheer HA, Aldakheel F, Alduraywish S, Arshad M. Detection of HBsAg mutants in the blood donor population of Pakistan. *PLoS One*. 2017 Nov 22;12(11).
5. Tang LSY, Covert E, Wilson E, Kotttilil S. Chronic Hepatitis B Infection: A Review. *JAMA*. 2018 May 1;319(17): Review.

### Biography

Dustov Abdusamad is of the age 64 years from Bangladesh. He is working as Head of the Department of Virology in the Institute of Gastroenterology of Republic of Tajikistan. He is greatly interested in research works on Viruses. He participated in many international conferences. He has more than 20 publications.

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