Original Article

Using Nucleotide Sequencing to Determine HBV Genotypes in Kerman Province

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Abstract

Background: Hepatitis viruses are one of the serious medical problems and Hepatitis B is one of the chief transferable disease via blood and its products. Nowadays, 11 genotypes of hepatitis B have known over the world by the genome sequencing. Hepatitis B viruses have special geographical distribution. The clinical importance of hepatitis B viruses and its relation with the mutations has recognized. The purpose of this study was to check the presence and prevalence of Hepatitis B virus genotypes among the referrals attended to the medical diagnostic laboratories in Kerman province.

Materials and Methods: In this cross-sectional study, twenty-one specimens were collected from blood samples available in the medical diagnostic laboratories of Kerman province during one year. After DNA extraction, PCR was carried on by specific primers, then they were sequenced. The obtained sequenced were compared with sequences in the NCBI gene bank and blasted for identification of their genotypes.

Results: Seven samples from twenty one samples (33.3%) had D genotype, 13 samples from 21 (62%) had D3 subgenotype and 1 sample from 21 (4.7%) had D4 subgenotype.

Conclusion: The prevalence of these genotypes in the Kermanian patients that recognized in this study can help to provide diagnostic kits for hepatitis B virus.

Keywords: Hepatitis B virus, genotype, PCR, Sequencing, NCBI.

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