

TITLE: HEPATITIS B IN RORAIMA: OCCURRENCE OF GENOTYPE E IN BRAZIL

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ABSTRACT:

Infection by the Hepatitis B Virus (HBV) is a serious public health problem worldwide. The HBV has great genetic diversity represented by 10 genotypes, distributed among different human populations around the globe. Brazil is considered a country of intermediate endemicity. Roraima represent the third state of the North region with greater cases numbers to HBV, whereas all genotypes present in the country are also in this state. The work objective was to identify circulating genotypes. This project was approved by the COEP (protocol 121005). Whole blood samples were collected before signing of the TCLE. The samples were submitted to DNA extraction, quantification, PCR and sequencing. Sequences were identified through the online tool BLAST, in which we could infer their genotype considering a minimum of 99% similarity. One sample was genotyped as E, being this its first occurrence in Brazil. The genotype E is widely distributed in the Sub-Saharan Africa, it is considered a recent genotype due to its low genetic diversity, pointing this as the probable reason for its low dispersion worldwide. This is an allochthonous case, the carrier J.E. immigrant of Haitian nationality, male, 44 years old, black, resident of the city of Boa Vista-Roraima. He was first diagnosed in September 2016 through an immunoenzymatic test, which was reactive to HBs Ag, Anti-HBc total and HBe Ag, and non-reactive to Anti-HBc IgM, Anti-HBe e Anti-HBs, characterizing him as chronic carrier. The disease was asymptomatic, however the patient relates having domiciliary contact with other HBV carriers. Further, there was history of cirrhosis and death by hepatitis in the family. In Roraima, domiciliary transmission is fairly reported, and it is related to sharing of personal objects (toothbrush, razor blade, nail cutter, among others). On his vaccine card, we could observe the part of the vaccinal scheme, however without completion. The vaccine must be administrated in three doses with three months of interval to increase seroconversion success. The patient went through three viral load exams in 2016, 2018 and 2019, resulting in 969.192.020 UI/mL, 27.466.331 UI/mL e 3.329 UI/mL, respectively. He is in treatment with tenofovir. With this finding, we want to show the importance of the molecular surveillance of the HBV in the frontier, as well as its transmission and dissemination routes along the country. The presence of genotype E serves as an alert to elaboration of prevention and treatment measures by public authorities.

Keywords: genotyping, HBV, Roraima, genotype E.

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