BC Centre for Disease Control

BC Centre for Disease Control
655 W 12th Ave
Vancouver BC V5Z 4R4

Ph: (604) 707-2514
Fax: (604) 707-2516
naveed.janjua@bccdc.ca

Feb 20, 2018

Name of Journal: World Journal of Gastroenterology

Manuscript NO: 37928

Manuscript Type: RETROSPECTIVE COHORT STUDY

Differing profiles of people diagnosed with acute and chronic hepatitis B virus infection in British Columbia, Canada

Dear Editors,

Thank you for organizing the review and comments on the above-named manuscript. We thank reviewers for thoughtful comments which have helped us in improving this manuscript. We have revised the manuscript based on comments provided by reviewers. In addition, we have addressed all editorial comments and have provided requirement documents.

Point by point response to reviewers' comments is provided below:

Reviewer #1

Overall the manuscript is well-written and clear. Methods are well designed and results are conclusive. However, the manuscript might benefit by adding some comparative discussions with their findings using the following reports from Canada: - Osiowy C et al, Characterization of Acute and Chronic Hepatitis B Virus Genotypes in Canada. PLoS One. 2015 Sep 25;10(9):e0136074. - Sherman M et al, The management of chronic viral hepatitis: a Canadian consensus conference 2004. Can J Gastroenterol. 2004 Dec;18(12):715-28. Review - Villeneuve JP. The natural history of chronic hepatitis B virus infection. J Clin Virol. 2005 Dec;34 Suppl 1:S139-42. Review.

Response:
We thank the reviewer for the comments. The distinction between acute and chronic infections in Canada by circulating HBV genotypes provides an added dimension to the implications of our findings. The findings of the three reports have been included in the manuscript in the discussion as indicated below:

The differences in HBV risk factor patterns among acutely and chronically infected individuals in BC are mirrored in the distinct patterns of circulating HBV genotypes in both populations[33]. Between 2006 and 2012, genotype C viruses were predominantly isolated from individuals with chronic HBV, while genotype D viruses were prevalent among persons with acute HBV in Canada[33]. As a high rate of chronic HBV diagnoses in Canada occur among immigrants form HBV endemic countries, these distinctions in circulating HBV genotypes may be related to the primary circulating strains in their home countries as wells as to differing modes of acquisition[4,33]. In contrast to developed countries, major risk factors for HBV acquisition in HBV endemic developing countries include unsafe medical practices, for example, during circumcision and dental procedures[34,35]. These variations in genotype may have serious implications for disease progression and

treatment outcomes among individuals diagnosed with either acute or chronic HBV in Canada[33,36]. Indeed, the elevated risk of HCC among African, Asian and Alaskan populations may be linked to circulating HBV genotypes[36]. This reinforces the need for ethnicity-based screening programs that go beyond the ongoing prenatal screening, and neonatal/preadolescent vaccination programs for immigrants originating from HBV endemic countries in certain parts of Canada[37].

Reviewer 1 Comment 2:
Although authors have comparative discussions for their results with other developed countries like US but the manuscript might also benefit by adding some comparative discussions with their findings using the following reports to find out about similarities and differences for a developed country like Canada and developing countries condition: - Olayinka AT et al, Seroprevalence of Hepatitis B Infection in Nigeria: A National Survey. Am J Trop Med Hyg. 2016 Oct 5;95(4):902-907. Epub 2016 Aug 15. - Mahtab MA et al, Epidemiology of hepatitis B virus in Bangladeshi general population. Hepatobiliary Pancreat Dis Int. 2008 Dec;7(6):595-600.

Response:
We thank the reviewer for the suggestions. The findings of Olayinka et al and Mahtab et al have been included in the manuscript in the discussion within the paragraph shown above. The finding that unsafe medical practices were major risk factors for HBV acquisition in Nigeria and Bangladesh was used to highlight the different modes of transmission in developing versus developed countries. However, as acute and chronic infections were not distinguished in either article, and since the narrative for chronic infections in this manuscript was mostly focused on ethnicity, specifically, East Asian individuals, it was particularly challenging to incorporate a comparison of our findings with those of Olayinka et al and Mahtab et al without disrupting the continuity of our narrative.

Reviewer 2:

Comment:
This study has some scientific and clinic significances, which is helpful for clinicians to understand the differing profiles of people diagnosed with acute and chronic Hepatitis B virus infection in British Columbia, Canada for supporting prevention, screening and treatment programs.

Response:
We thank the reviewer for the favourable comments.

Sincerely,
Naveed Zafar Janjua MBBS, MSc, DrPH
BC Centre for Disease Control, Canada