Effect of Alcohol on Clinical Outcomes of Hepatitis Virus-Induced Liver Cirrhosis: A Consecutive Ten-Year Study

Kodjo-Kunale Abassa

The Third Affiliated Hospital of Sun Yat-Sen University <https://orcid.org/0000-0002-4810-7099>

Xiao-Ying Wu

The Third Affiliated Hospital of Sun Yat-Sen University

Xiu-Ping Xiao

The Third Affiliated Hospital of Sun Yat-Sen University

Hao-Xiong Zhou

The Third Affiliated Hospital of Sun Yat-Sen University

Yun-Wei Guo

The Third Affiliated Hospital of Sun Yat-Sen University

Bin Wu (✉ wubin6@mail.sysu.edu.cn)

The Third Affiliated Hospital of Sun Yat-Sen University <https://orcid.org/0000-0001-9039-9681>

Research Article

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Abstract

BACKGROUND & AIM: Coexisting alcoholic liver disease and virus-induced liver cirrhosis (ALD+HBV and ALD+HCV) has not been thoroughly studied. This cross-sectional study aims to showcase the influence of alcohol on the laboratory values and on the clinical outcomes of patients with hepatitis B and C virus-induced liver cirrhosis.

METHOD: Patients diagnosed with liver cirrhosis (n=22287) from January 2010 to December 2019 were collected from our hospital electronic database, and divided into five groups according to the etiology: ALD (1652 cases, 7.4%), HBV (18079 cases, 81.1%), HCV (682 cases, 3.1%), ALD+HBV (1594 cases, 7.2%) and ALD+HCV (280 cases, 1.3%). Laboratory results and proportion of different liver cirrhosis complications were contrasted between groups.

RESULTS: ALD+HBV and ALD+HCV presented with higher proportions of poor prognosis patients and cirrhosis complications compared to HBV and HCV respectively. Multivariate logistic regression revealed that the risk of HCC and that of EGVB in the ALD+HBV group was respectively 2.14-fold and 1.47-fold that in the HBV group (HCC: OR=2.14, 95%CI: [1.71-2.69]; EGVB: OR=1.47, 95%CI: [1.17-1.84]) after adjusting for potential confounders. Furthermore, a decrease in the risk of HCC and EGVB with the duration of alcohol abstinence was observed. Similar pattern was noticed while comparing ALD+HCV group to HCV group.

CONCLUSION: Alcohol significantly increased the severity of liver function impairment and the prevalence of liver cirrhosis complications such as HCC and EGVB in hepatitis virus-induced liver cirrhosis patients. Remarkably, long period of alcohol abstinence significantly decreased the prevalence of HCC and EGVB in these populations.

Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed. However, the manuscript can be downloaded and accessed as a PDF.

Figures

Figure 1

Proportion of HCC (fig A) and EGVB (fig B) according to gender in different groups. ALD, alcohol liver disease; HBV, Hepatitis B virus; HCV, hepatitis C virus; ALD+HBV, co-existing ALD and HBV; ALD+HCV, co-existing ALD and HCV; HCC, Hepatocellular carcinoma; EGVB, Esophageal gastric variceal bleeding. “**” indicates $P < 0.01$, “***” indicates $P < 0.001$. No case of EGVB was recorded in female of the ALD+HCV group.

Supplementary Files

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