

Impact of Nonalcoholic Fatty Liver Disease on Liver Fibrosis in Hepatitis B

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Background and Aim: The prevalence of hepatitis B patients with concurrent nonalcoholic fatty liver disease (NAFLD) is growing in many countries, including Iran. Since presence of both hepatitis B and NAFLD may have additive effect on liver disease progression, present study aims to compare disease progression in different settings of NAFLD and hepatitis B in a large population of Iranian adults.

Methods: Baseline data of two nested studies within Golestan Cohort Study were analyzed. Study population consisted of individuals aged 50-75 years old residing in Golestan province. Liver fibrosis and steatosis status of participants were assessed using transient elastography and abdominal ultrasound, respectively. Participants were categorized into four groups of “control”, “only NAFLD”, “only hepatitis B” and “both”. The degree of liver fibrosis and its association with type of liver impairment were investigated.

Results: Current study consisted of 2,089 individuals (53% male) with mean age of 58.9 years. Median Liver Stiffness Measurement score was 4.7 kPa. “NAFLD”, “hepatitis B” and “both” were all associated with significant fibrosis, while superimposition of NAFLD did not predispose HBV patients to higher risk of advanced fibrosis (OR=1.2, P-value=0.5). Presence of NAFLD or high viral load were not associated with increased value of Liver Stiffness Measurement in HBVs, while being significantly associated with higher levels of ALT (p-value<0.001).

Conclusion: Our study showed that while addition of HBV to NAFLD could be associated with higher risk of liver fibrosis progression, HBV patients with NAFLD-superimposition are not at higher risks of advanced fibrosis.

Biography:

Dr. Hossein Poustchi obtained his medical degree at Tehran University of Medical Sciences (Tehran, Iran), in 1995. He later completed his PhD in Epidemiology from University of Sidney in 2007, where he also obtained his specialization in Hepatology. Dr. Poustchi is highly active in research. His research interests include Hepatitis B, Nonalcoholic fatty liver disease and Hepatocellular carcinoma. Dr. Poustchi is one of the most active principal investigators of the Golestan Cohort Study, where he oversees the Golestan Hepatitis B Cohort Study.