Virologic and histologic characterisation of dual hepatitis B and C co-infection in Egyptian patients

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Abstract:

Background and study aims Data about dual hepatitis C (HCV) and B (HBV) co-infection are still scarce, especially in endemic areas such as Egypt. Therefore, we aimed to characterise the virologic and histologic pattern of dual B/C co-infection in a tertiary care centre in Egypt. Patients and methods After obtaining approval from the review board, a retrospective design to evaluate the data registry between January 2009 and December 2012 of patients with dual HCV and HBV seropositivity (BC-group) at the Viral Hepatitis Unit in Ministry of Health and Assiut University Hospital, Egypt was conducted. Data for hepatitis B e antigen (HBe-Ag) and anti-HB core status, anti-hepatitis delta virus (anti-HDV), HBV-DNA and HCV-RNA assays and liver biopsy (METAVIR scoring) results were collected. Two other matched groups of mono-HCV (C-group) and HBV (B-group) were selected as controls. All patients were naive for antiviral therapy. Results A total of 3300 patients were enrolled. Dual infection was observed in 25 (0.7%) patients (all males, mean = 35.2 ± 10.2 years). Four patients (16%) were HBe-Ag-positive. Six (24%) patients were HBV-DNA-negative and all were positive for HCV RNA. Between groups, raised alanine aminotransferase (ALT) was found in 76%, 41.7% and 49.2% of the BC, B and C groups, respectively (p = 0.023). HBV DNA >2000 IU ml−1 was more in the B-group than in the BC-group (63.9% vs. 36%; p = 0.042) and HCV RNA >800,000 IU ml−1 was more in the BC-group than in the C-group (28% vs. 12.3%; p = 0.009). Histologically, there is no statistical significant difference between the three groups. Conclusion Dual hepatitis B/C infection is not uncommon and their virologic and histologic profile is modest. Further evaluation with regard to treatment and long-term follow-up is warranted.

Keywords:

HCV; HBV; Dual; Co-infection; Egypt

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