Chronic viral hepatitis and their relation to ABO blood groups and rhesus (Rh) factor

Medical Case Study

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ABO blood groups have shown some association with various diseases. Although there are small studies in literature about association between ABO blood groups and chronic viral hepatitis, only few studies found relation between fibrosis severity in chronic viral hepatitis C (CVHC) and ABO blood groups. The aim of this survey is to determine the frequency of different blood groups and Rh (Rhesus) factor in chronic viral hepatitis B (CVHB) and C, to find out if such a host factor may play a role in trend of these viral infections. This is a case control study on patients with CVHB and CVHC referring to infectious diseases research center, Isfahan, Iran and healthy blood donors (HBDs) referring to Isfahan blood bank were selected as control during April 2003 and April 2007. 170 cases with chronic viral hepatitis (130 CVHB and 40 CVHC) and 680 cases of healthy blood donor enrolled in this study. Statistical analyses were performed using SPSS v. 11.0.1 using c² test. Distribution of blood groups and Rh in CVHB were as the following: Group A, 42 (32.3%), B, 30 (23.1%), AB, 10 (7.7%), O, 48 (36.9%). 115 (88.46%) were Rh positive and 15 cases (11.54%) Rh negative. In CVHC 10 (25%) cases were blood group A, B 14 (35%) cases group B another 14 (35%) case were AB and 2 cases (5%) group B, out of them 37 (92.5%) were Rh positive and remaining 3 (7.5%) were Rh negative. In healthy blood donors 212 (31%) were group A, 183 group B (26.8%), 66 group AB (9.7%) and 222 (32.5%) group B. Positive Rh found in 611 individuals (89.45%) and Rh negative 72 (10.55%). Comparing relative frequency of ABO blood groups and Rh between cases of chronic viral hepatitis and control blood donors, there was no significant difference between blood groups (p > 0.5) or Rh (p > 0.5) with chronic viral hepatitis.

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