

Abstract

Prevalence and Seroconversion of Viral Hepatitis B and C and HIV Among Hemophilia Patients in Baghdad, Iraq, 2016

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Abstract

Background: Hemophilia is an inherited bleeding disorder caused by a deficiency of either factor VIII (hemophilia A) or IX (hemophilia B). Treatment with intravenous replacement of these factors and blood carries the risk of transfusion transmitted viral infections.

Objective: We performed this study to estimate the prevalence and seroconversion rates and identify risk groups of hepatitis C (HCV), hepatitis B (HBV) and human immunodeficiency virus (HIV) infections among hemophilia patients in Baghdad City, Iraq, 2016.

Methods: We conducted this cross-sectional study by reviewing records of all hemophilia patients resided in Baghdad in 2016 and registered and received treatment in the four hemophilia centers in Baghdad. All hemophilia patients are annually screened for anti-HCV antibody, HBsAg and HIV antibodies. Positive samples are sent for confirmation at the Central Public Health Laboratory and the results are reported in the patients' records.

Results: The total number of registered hemophilia patients in Baghdad in 2016 was 639. There were 150 (22.9%) patients with HCV infection, six (0.9%) with HBV infection, and only one patient (0.2%) had HIV infection. The seroconversion rate for HCV was 8/1000 and for HBV was 1.7/1000. The median period between birth and acquiring HCV infection was 17 (IQR=24) years, and for HBV was 11.8 (IQR=9.4) years. Binary analysis, revealed the following statistically significant risk factors ($P<0.05$) for acquiring viral hepatitis infection: age, severity of hemophilia, presence of inhibitors, type of treatment, no. of treatment products used and presence of target joints. After applying logistic regression analysis, the significant independent risk factors were: age (14-18years: OR=4.03; 95% CI: 1.25-12.94), (19-44years: OR=18.8; 95% CI: 6.69-52.85), (\geq 45years: OR=5.18; 95% CI: 1.01-26.58) and severe hemophilia (OR=6.25; 95% CI: 1.27-31.25).

Conclusions: Despite screening of blood and blood factors, HBV and HCV infections still occurring in hemophilia patients. Closer monitoring of transfused blood and ensue vaccination of all hemophilia patients for HBV are recommended.

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