Frequency of hepatitis B virus, hepatitis C virus and Human Immunodeficiency Virus in blood donors and patients in Gorgan blood transfusion organization in 2003

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Abstract

Background&Objective: Consultation prior to blood donation and screening tests of common blood born diseases such as Hepatitis B,C and AIDS are very important issue in blood quality assurance, therefore we decided to compare frequency of such diseases in blood donors and outpatients admitted in the blood transfusion centers.

Materials&Methods: For this purpose the initial tests including HBsAg, HCVAb, and HIVAb were performed on all blood donors and outpatients' blood samples in Gorgan transfusion center by ELIZA methods during 2003 and confirmatory tests including neutralization for HBsAg, RIBA for HCVAb and Western blot for HIVAb performed in condition where ELIZA report was positive.

Results: The blood donor in this study had the following positive results: HbsAg 2.5%, HCVAb 3%, HIV 0.35%. The same indeces for the out patients were positive as follow: 13%, 8.3% and 2.04% respectively. The other finding from this investigation indicate that the blood donors positive cases with the ELISA technique were confirmed by Western blot 92%, 20.1% nad 0% for HBSAg, HCVAb, as HIV respectively. The confimatory results of the positive out patient's cases were as follow, 97%, 47% and 60% for HBSAg, HCVAb and HIV respectively.

Conclusion: This study reveals frequency of Hepatitis B and C and AIDS among outpatients which considered being high risk group are more than the blood donors. We conclude that the measurement of HBSAg by ELIAZ methodes in comparision to the HCV and HIV are more accurate.

Key Words: Hepatitis B- Hepatitis C- AIDS-ELIZA- NAT