

Seroprevalence of HBV, HCV and HIV Infections among College Going first time Voluntary Blood Donors

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Abstract

Objective: College going first time voluntary blood donors were tested for HBV, HCV and HIV infections, to know the seroprevalence of these diseases among them.

Method: Blood donation camps were organized at 18 colleges and universities of the city and a total of 612 samples from first time donors were tested for HbsAg, anti-HCV, anti-HIV1, 2 antibodies on Abbott Diagnostic systems.

Results: Thirteen voluntary blood donors (2.21% with 95% confidence limit 1.2-3.52%) were HbsAg and 3 (0.5% with 95% confidence limit 0.12-1.33%) were anti HCV positive. None of the donors was positive for HIV infection.

Conclusion: Seroprevalence of HBV, HCV and HIV infections among college going students is significantly low (<3.0%) than 30% seroprevalence among paid donors and 7% among family/replacement blood donors. There is a need to educate, motivate and recruit college going students to regularly donate blood to ensure relatively safe supply of blood for transfusion services (JPMA 50:269, 2000).

Introduction

Hepatitis B and hepatitis C infections are the major blood transmitted diseases in the country. Blood from paid and family/replacement donors have proved to be unsafe because of high prevalence of these blood transmitted infections among them^{1,2}. Blood transfusion services in the country which are already suffering from the paucity of funds, waste good amount of their resources in discarding their donated blood without significantly improving the quality of blood, because of the residual risk of being in the window period at the time of testing.

To find out a safer blood donor population in the country, we tested college going voluntary blood donor populations for HbsAg, anti HCV and HIV at Blood Transfusion Services, Jinnah Postgraduate Medical Centre, in the year 1996-97.

Material, Method and Results

Blood donation camps were organized at 18 colleges and universities of the city and a total of 612 units of blood donations were collected. Amongst them 423 (69%) were males and 189 (31%) females. Thirteen voluntary blood donors (2.2% with 95% confidence limit, 1.2-3.5%) were HbsAg and 3 (0.5%, 95% confidence limit 0.1-1.3%) anti HCV positive on Abbott Diagnostic System. None of the donors were HIV positive on anti HIV1, 2 Abbott Diagnostic kit.

Discussion

The less than 3% likelihood of blood transmitted infections from the college going first time voluntary blood donors is significantly lower (less than 30%) from the paid blood donors and 7%

from family blood donors¹⁻³.

This relatively low prevalence of blood transmitted infections among the college going voluntary blood donors population suggests that they are one of the best group for education, motivation and recruitment for voluntary blood donation program. They are sensitive to the need of the community and easily accessible besides having a low prevalence of blood transmitted infections. It is easy to introduce self administered donor selection questionnaire and motivate self withdrawal from blood donation on account of having at risk activities. Their participation in regular voluntary blood donation program certainly will improve the quality of blood transfusion services in the country' and reduce the wastage of donated blood.

References

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