

Prevalence of HIV, ANTI-HCV, HBsAg and VDRL positive cases in Blood Donors of Bhatti International Trust Hospital, Kasur

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ABSTRACT

Aim: To interrogate the prevalence of HIV, ANTI-HCV, HBsAg and VDRL positive cases among apparently healthy blood donors.

Place of study: Blood Bank Section, Bhatti international trust Hospital, Kasur a 300 bedded tertiary care teaching hospital affiliated with Central Park Medical College, Lahore

Duration of study: from 13 March 2013 to 12 September 2013

Methods: All blood donors were included in this study. For screening purposes, "Accu Check" rapid diagnostic test kit was used. Out of 833 blood donors 50 donors were found infected. No donor was HIV positive, however 24 donors were VDRL positive, 16 were Anti HCV positive and 10 were HBsAg positive. No single Patient was suffering from more than one above mentioned communicable disease. No single Patient was suffering from more than one above mentioned communicable disease.

Results: Out of 833 blood donors 50(6%) donors were found infected. No donor was HIV positive, however 24(2.88%) donors were VDRL positive, 16(1.92%) were Anti HCV positive and 10(1.20%) were HBsAg positive. No single Patient was suffering from more than one above mentioned communicable disease. It further shows that in total 50 infected donors, 24(48%) were VDRL positive, 16(32%) were HCV positive and 10(20%) were HBV positive. It's also interoperated that in 50 infected persons 8 were A+, 16 were B+, 12 were AB+, 10 were O+, 2 were A-, 2 were B- and none was O – or AB.

Conclusion: It is concluded that to halt the blood borne communicable diseases proper screening is mandatory

Keywords: HIV, DCRL, HBsAg

INTRODUCTION

Communicable diseases are major cause of morbidity and mortality in the world. The carriers are mobile and an alarming threat for the healthy population. One of the important ways of transmission of communicable disease is through hematological route. Thus preventive measures like proper screening of the donor pre transfusion is vital. Screening of HBV, HCV, HIV and VDRL is pre requisite before blood transfusion. Hepatitis B (HBV) and Hepatitis C viruses (HCV) are the most common causes of chronic liver disease in the world. Both viruses induce chronic hepatitis, which may progress to cirrhosis and eventually to hepatocellular carcinoma². The prevalence of HBV and HCV worldwide is 500 million³, while in Pakistan combined infection rate of 7.6% in the general population⁴. Human immunodeficiency virus (HIV) is a lentivirus (slowly replicating retrovirus) that causes

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acquired immunodeficiency syndrome (AIDS). HIV is not currently a dominant epidemic in Pakistan. However, the number of cases is growing. The National AIDS Program's latest figures show that over 4,000 HIV cases have so far been reported since 1986, but UN and government estimates put the number of HIV/AIDS cases around 97,000 ranging from lowest estimate 46,000 to highest estimate-210,000⁵. The Venereal Disease Research Laboratory test or VDRL is a blood test for syphilis. Syphilis is a sexually transmitted infection caused by the spirochete bacterium *treponema pallidum*. Regarding syphilis, No actual estimate of prevalence in Pakistan is available.

MATERIAL AND METHODS

Blood from the donors was received at BITH Laboratories, Kasur and the screening was done using, "Accu Check" rapid diagnostic test kit. Total of 833 donors was screened from 13 March 2013 to 12 September 2013. All male donors having Weight

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>60Kg between 20-35 years with hemoglobin >14g/dl were included in the study. Donors with history of HBV, HCV, VDRL or HIV in life, drug abuse, drinkers, surgery, body piercing, and blood or blood component transfusion within 3 months were excluded from the study.

RESULTS AND DISCUSSIONS

Blood borne Communicable diseases may remain asymptomatic for many years, because in the carrier stage the disease is silent. Such carriers are an alarming threat for the healthy population. Unscreened transfusion from silent carriers to the

recipients is a major cause of transmission of blood borne infection. The results show that Out of 833 blood donors 50(6%) donors were found infected. No donor was HIV positive, however 24(2.88%) donors were VDRL positive, 16(1.92%) were Anti HCV positive and 10(1.20) were HBsAg positive. No single Patient was suffering from more than one above mentioned communicable disease. It further shows that in total 50 infected donors, 24(48%) were VDRL positive, 16(32%) were HCV positive and 10(20%) were HBV positive. It's also interoperated that in 50 infected persons 8were A+, 16 were B+, 12 were AB+, 10 were O+, 2 were A-, 2 were B- and none was O – or AB.

Table: 1 Percentage of prevalence of HIV, ANTI-HCV, HBsAg and VDRL positive cases

Total Donors	Negative	HIV	HBsAg	HCV	VDRL	Total
	783	0	10	16	24	833
%	94.00	0	1.20	1.92	2.88	100.00

Table 2: Infected blood donors in accordance with their blood groups

Blood Group	HCV+	HBsAg+	VDRL+	HIV	Total +	%	Negative	%	G Total
A+	4	0	4	0	8	6.02	125	93.98	133
B+	4	6	6	0	16	5.84	258	94.16	274
AB+	2	0	10	0	12	12.77	82	87.23	94
O+	6	2	2	0	10	4.27	224	95.73	234
A-	0	2	0	0	2	9.52	19	90.48	21
B-	0	0	2	0	2	5.00	38	95.00	40
AB-	0	0	0	0	0	0.00	1	100.00	1
O-	0	0	0	0	0	0.00	36	100.00	36
G Total	16	10	24	0	50	6.00	783	94.00	833

CONCLUSION

- Unscreened blood transfusion is playing consequential role in spreading communicable diseases. This risk can only be addressed by proper screening method employed by trained staff and quality tool.
- All such incidentally “finds” during screening must be registered in OPD for further advice and treatment
- It shows the “iceberg phenomena in our society and preventive and curative measures must be taken in this regard
- IEC (information-education-communication) material must be widely distributed among local population to sensitize this burning issue

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