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Short Communication

Prevalence of Transfusion Transmitted Disease among Blood Donors in SreeBalaji Medical College and Hospital - A 2 Years Study Report

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Abstract: The aim of the study was to find out the prevalence of transfusion transmitted infection among blood donors at SreeBalaji Medical College and Hospital.A total of voluntary blood donors were analyzed over a period of 2 years (May 2013-April 2015). Prevalence of transfusion transmitted infectionof total donors were 3356.Prevalance of Hepatitis B positivity was highest 40cases (1.19%),followed by11cases of HCV(0.32%),8 cases of VDRL (0.23%) and one caseof HIV(0.02%).Prevalencewas more in male donors.Extensive donor selection and screening procedures will help in improving the blood safety.
Keywords: Hepatitis, Human Immunodeficiency Virus

INTRODUCTION

Blood transfusion is an integral and life saving procedure. Hepatitis B ,Hepatitis C,HIV and Syphilis are major public health problem in developing countries. Blood transfusion is a potential route of transmission of these transmitted transfusion disease (TTI)[1].Screening of blood is now mandatory and is undertaken routinely in blood banks. Transfusion during serologically window period still poses a threat to blood safety in environments where there is high rate of TTIs.

METHOD AND MATERIALS

The present study was carried out in Blood bank at SBMCH .A total of 3356 donors were analyzed for the prevalence of transfusion transmitted infection over a period of 2 years from May 2013-April 2015 .These include replacement donors who donated for ailing patients and were family members,close relatives and friends of the recipients .Basic information regarding age,sex,occupation ,no. of previous donations and previous illness was obtained.All samples were screened for hepatitis B surface antigen(hepacard,ELISA),HCV(ELISA),syphilis(RPR), HIV (TRI-Dot,ELISA) were performed .

RESULTS

A total of 3356 donors were studied. Among that,Hepatitis Bsurface antigen is positive for 40 cases (1.19%), followed by 11cases of HCV(0.32%),8 cases of VDRL (0.23%) and one case of HIV(0.02%) .The most commonage group is being 30-40 years.The results of seropostive samples forHBsAg, HCV, HIV, and VDRL are shown in Table 1 &2 .Hence this study was carried out to highlight the importance of screening among blood donors. The seropostive cases were confidentially and informed to take a necessary treatment. The infected samples are discarded as per the biological rule.

Table 1: Blood transfusion cases 2013-2014

AGE	MALE	FEMALE	Hb's Ag*	HIV*	HCV*	VDRL*
<20yrs	170	2	1	-	-	-
21-30 yrs	879	11	10	1	2	3
31-40 yrs	348	5	5	-	2	-
>40 yrs	107	2	-	-	1	-
Total	1504	20	16	1	5	3

Positive cases*

Table 2: Blood transfusion cases 2014-2015

AGE	MALE	FEMALE	Hb'sAg*	HIV*	HCV*	VDRL*
<20yrs	267	9	1	-	1	-
21-30 yrs	985	15	10	-	1	-
31-40 yrs	411	13	12	-	4	1
>40 yrs	129	3	1	-	-	4
Total	1792	40	24		6	5

Positive cases *

DISCUSSION

Transfusion of blood and its components is lifesaving as well as it has life threatening hazards [2,3].

Our results showed that high positivity for Hepatitis B virus (1.19%),similar results found by Arora et al. [4], Sawke*et al*. [5] and Chandra *et al*. [6] which shows 1.7%, 2.9% and5%.

Seroprevalence of HCV is 0.32 %, which is less compared to otherstudies such as Kulkarni*et al.* [7].

This study highlights 0.23% prevalence of syphilis infection, which is high compared to study done by Kulkarni*et al.* [6] which showed 0.04%.

Seroprevalence of HIV is 0.02% in our study which is in contrast to other studies such as Arora*et al*. [3], Sawke et al. [5] and Mujeeb*et al.* [7] which was observed to be 0.3%, 0.5%, and 0% respectively.

Majority of the donors were males, which is comparable to the study done by Kulkarni*et al.* [7], Rao, *et al.* [9] and Arora*et al.*[4].

CONCLUSION

Transfusion of blood and its components is a double edge weapon as it is a life saving measures and some of the problems as transfusion transmitted disease etc.Hence a safe blood transfusion should be practiced by careful screening of donors and complete serological investigation of collected blood .By doing the complete serology workup of donated blood will find out the possible transfusion transmitted disease and judicial use of transfusion of blood will lead to safe blood transfusion practice.

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