Research Article

Blood donor adverse reactions

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Abstract

Blood donors are the backbone of a blood transfusion service (BTS). Ensuring the safety of blood donors is of utmost importance. Efforts should be taken to promote voluntary non-remunerated regular repeat blood donation (VNRRBD) in order to improve blood safety. If the donors are ensured of a pleasant experience during blood donation they will be motivated to become regular repeat donors. This can be accomplished by way of preventing adverse reactions in the donor. Donor adverse reactions are generally mild. In this study, the most common adverse reaction observed was vasovagal reaction (VVR).

Key words: Blood donor, VNRRBD, adverse reaction, vasovagal reaction, hematoma.

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INTRODUCTION

Blood donors are altruistic volunteers. The reality that many first time donors do not return for donation can be explained by the occurrence of adverse reactions. This study was conducted to determine and estimate the frequency of occurrence of adverse reactions in whole blood donors and to identify associated factors like age, sex, body weight, donation status in the causation of donor adverse reactions.

METHODOLOGY

Voluntary whole blood donors who donated in the blood bank and in out-door blood donation camps were the subjects under study. Donor selection was made as per national guidelines.[1] Whole blood collection was done as per standard operating procedures.[2] Donors were monitored for any adverse reactions and the reactions managed accordingly and documented. [3] Post-donation instructions were given to all the donors.

RESULTS

In this study, the total number of male and female donors were 1969 and 572 respectively. Thirty three donors experienced adverse reactions [Figure 1]. Most reactions were in the student population aged 18-22 yrs. Among both sexes, percentage of adverse reactions in female donors was 3.15% as compared to 0.76% in male donors. Vasovagal reaction was 5 times more common in females (2.44%) than in males (0.46%). Vasovagal reactions were common in donors weighing < 55kg, exclusively in first time donors. VVR was more frequent in summer months and in those who had a lower pre-donation blood pressure. Tetany in one donor manifested as carpopedal spasm which was due to hyperventilation. All adverse reactions occurred only after the blood collection process was over. Most adverse reactions occurred in the refreshment area except for the 3 donors who exhibited convulsive syncope even while lying on the donor couch (within 10 min of completion of blood collection). In all cases of adverse reactions, recovery of the donor was complete and uneventful.

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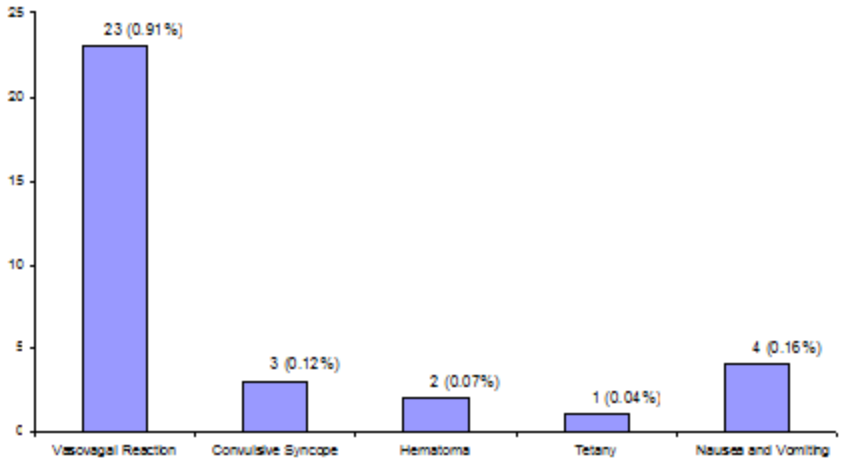

FIGURE 1
Adverse reactions in whole blood donors

Total no. of donations, n = 2541

DISCUSSION

Preventive strategies to avoid adverse reactions in blood donors should include: a) proper elicitation of donor history, like time since last meal, nature of their occupation and whether they had a good sleep on the day prior to donation, b) proper screening procedures like ensuring adequate hydration of donors, c) reassuring first time donors, d) providing a comfortable couch and proper phlebotomy techniques by an experienced phlebotomist, e) ensuring adequate ventilation and a comfortable environment, f) observing the donor for at least 10 min post donation while he still remains on the donor couch and then sending him for refreshments, g) giving post donation instructions and h) donors experiencing adverse reactions should be moved to a separate area so that other donors do not get demotivated. At no point of time should a donor be left unattended.

CONCLUSION

Blood donation from voluntary non-remunerated regular repeat donors is considered safe. Efforts should be directed towards encouraging and retaining adequate numbers of repeat donors. Blood donors should be appropriately recognized and felicitated for their contribution because they are the backbone of a blood transfusion service.

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