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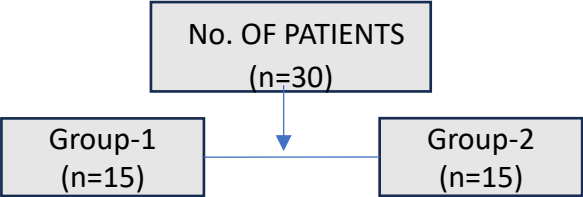
INTRODUCTION

Compatibility tests are performed to prevent an immune mediated hemolytic transfusion reaction. A nonreactive serologic cross match indicates the donor unit is compatible and safe for transfusion. Some times in patients with autoantibodies (such as autoimmune hemolytic anemia), it is very difficult to find compatible cross match. In such cases if transfusion required then least incompatible cross match units can be used.

AIMS AND OBJECTIVES

- To determine the safety of transfusion of least incompatible/best matched PRBC units following in vivo biological cross match.
- To determine the efficacy of the least incompatible/ best matched PRBC units after transfusion.
- To compare the outcome of transfusion of least incompatible/best matched PRBC units between the patients receiving steroids, antihistamines or immunosuppressive drugs (Group 1) v/s the patient who are not receiving any such medications (Group 2).

METHODS



1. Requisition form received for PRBC.
2. ABO and Rh grouping of patient sample done
3. Incompatibility observed during crossmatching.
4. DCT,ICT and Auto control performed.
5. Re-crossmatching with multiple PRBC units done.
6. Incompatible/best matched PRBC units issued after comparison with auto-control.
7. In-vivo transfusion of 20 ml PRBC done and patient observed for 15-20 min for any adverse event.

Blood samples were collected for evaluating hemolysis parameters: Hb, reticulocyte count, serum bilirubin, and serum LDH before transfusion and compared with the same parameters within 24 h after transfusion.

RESULT

The study included 30 patients. 11 males (36.6%) and 19 females (64.4%). All the transfusion (n=30) were observed for any adverse event during the transfusion, and a record was made of sign of acute hemolytic transfusion reaction (AHTR) . Most of the transfusion were successful while only in four patients after 20 ml transfusion they developed FNHTR/Allergic Reaction.

COMPARISON OF ADVERSE EVENT IN GROUP-1 AND GROUP-2 PATIENTS

S.N	GROUP	No. of Pt.	Type of Reaction	PERCENTAGE
1	Group-1	01	FNHTR	06%
2	Group-2	03	ALLERGIC REACTION	20%

IMPROVEMENT IN Hb. LEVEL AFTER TRANSFUSION OF SINGLE UNIT PRBC

TOTAL No. OF PATIENTC	No. OF PATIENTS (Hb >1 gm/dl)				No. OF PATIENTS (Hb <1 gm/dl)			
	GROUP-1		GROUP-2		GROUP-1		GROUP-2	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
30	04	08	03	05	01	02	02	05

CONCLUSION

- Acute transfusion related hemolytic reaction are a serious situation.
- The biological in vivo compatibility test is safe, predictive and can be feasibly applied at the bed side, which may be life saving for many patients.

REFERENCES

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