

INTRODUCTION

Transfusion support may be urgently required for patients with autoimmune hemolytic anemia (AIHA) who present with fulminant hemolysis. Provision of clinically safe transfusion support within a short time remains a challenge in these cases.

OBJECTIVE

To evaluate safety and efficacy of Best matched, partially antigen matched blood transfusion in patient's with AIHA.

MATERIALS AND METHODS

Retrospective analysis of data of 2 years and 6 months revealed 46 patients with AIHA. 25 patient's (54%) were transfused with best matched blood transfusion which was partial phenotype and K antigen matched. All cellular blood components were leukocyte depleted. The transfused and non-transfused patient group was compared for various critical and laboratory parameters.

RESULTS

46 patients had established serologic diagnosis of warm AIHA and DAT was found to be positive in all but one case. 42/46 patients had a positive IAT. The autoantibody titer ranged from 128 to 2048. Reticulocyte count was done for 32/46 patients and mean reticulocyte count was 7.9 %. Mean LDH level was 507 U/L. 517 units were cross-matched. Of which 130 (25%) units were found to be best matched at a titer (2 to 64) below the autoantibody titer in the patient. 130 units were transfused in 25 patients and the mean post transfusion increase in hemoglobin was 1.8 gm/dl. Delayed hemolytic transfusion reaction was reported in 1 case (but the alloantibody specificity could not be identified) 13/46 patients expired, of which 6 were from non transfused group. On the median follow up of 375 days, all patients in the transfused group maintained Hb> 10 gm/dl with transfusion support.

CONCLUSION

The provision of partial phenotype matched blood for transfusion support in AIHA cases was clinically beneficial as well as safe at titers below 128. This practice has enhanced transfusion safety in urgent situations.

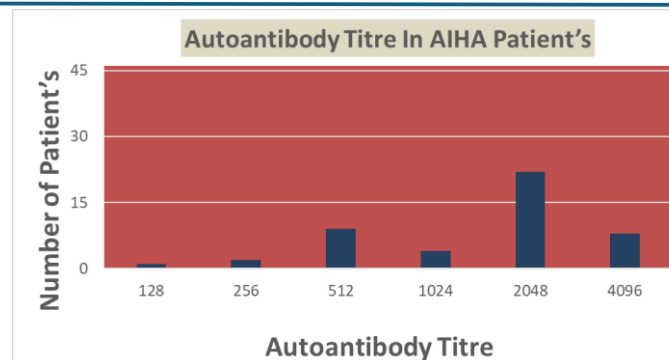


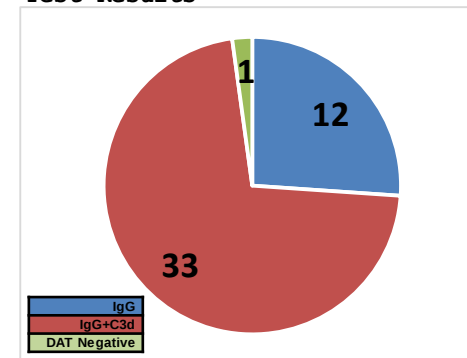
Table 1: RESULTS OF IMPORTANT LABORATORY PARAMETERS

PARAMETERS		
Parameter	Mean	Range
LDH	507 U/L	154 U/l- 1242 U/L
Reticulocyte count	7.9%	2.5% - 29.5%

Table 2: Transfusion Support in AIHA patients.

Total PRBC's crossmatched	517
Total least compatible (Best Matched) units	130
Total mean PRBC units transfused per patient	05
Mean Hb increment per patient	1.8 gm/dl
Interval between Transfusions	68 days
Delayed Hemolytic Transfusion reaction	01

Graph 2: Direct Antiglobulin Test Results



Note: 45/46 patients had positive DAT results.