

RED CELL ALLOIMUNIZATION IN POLITRANSFUSED PATIENTS WITH β THALASSAEMIA MAJOR REGISTERED IN NITH

Fl. Vlădăreanu, S. Sirian, D. Voicu, L. Nițu, C. Calotă

National Institute of Transfusion Haematology
Bucharest

Introduction chronic transfusion therapy remains the basic treatment in thalassemia major, regular transfusions are essential for growth and development in childhood and for maintaining a good quality of life in adulthood.

Occurrence of red cell alloimmunization is a major complication of transfusion; alloimmunization is a highly complex process involving many factors: differences between donor and recipient antigens, immune status of the recipient; immunostimulating effect of allogenic transfusion on the immune system of the recipient.

Purpose: frequency of red cell alloimmunization for the group of patients with thalassemia major are registered in NITH, data from the literature showing large variations, from 3.5% to max 37% in some Asian populations of patients with t h a l a s s e m i a m a j o r .

Material & Method The study was conducted on the 105 patients with thalassemia major record NITH, regularly transfused every 2-4 weeks with leucodepleted red cell concentrates, compatible and Rh-Kell extended phenotyped. Screening of red cell antibodies should be performed regularly and if a positive result is going, to identify them, using large panels of erythrocytes.

Results. We identified 14 patients with alloantibodies (13.33%), the specificity mostly anti D (3 patients) and Anti K (3 patients). In 1999, a study on the immune status of 118 patients with thalassemia major in NITH had identified 15 patients with red cell alloantibodies, other 16 patients had both red cell alloantibodies and anti- HLA, alloimmunization frequency was 25, 42%. From the current group of 14 patients with alloantibodies, only 3 are new, the rest being found in the group of 1999.

Conclusions. Red cell alloimmunization frequency decreased significantly since the 1990s, extensive transfusions performed in Rh-Kell phenotype after 2000 prevented the new alloantibodys.