THE RISK OF THE RH D ALLOIMMUNIZATION AFTER RH(D) INCOMPATIBLE PLATELET TRANSFUSION IN HAEMATOLOGICAL PATIENTS

E. Tomasić-Susanj, S. Balam-Marunić, K. Vujaklija-Sipanović
Institute of Transfusion Medicine, Clinical Hospital Center Rijeka, Croatia

Background: Platelet transfusion therapy has become a major component of the supportive care provided to patients receiving aggressive chemotherapy. The transfusion of platelets is indicated to assure haemostasis in haematological whole blood units collected during regular blood donations from platelet rich plasma and pooling them at a dosage one unit/10 kg body weight. The selection of platelets to transfuse is based upon ABO and Rh (D) blood group of a patient, if it is possible.

Patients and Methods: We retrospectively analyzed the frequency of RH alloimmunization in a series of RH negative patients with hematological malignancy that received RH positive platelet transfusions. The patients had no previous exposure to RH positive blood components and anti-D was not detectable before transfusion. Routine testing for antilymphocyte antibody detection was performed by column agglutination technology (DiaCell, Eryscan).

Results: Sixteen patients (8 men and 8 women) were included in the study. The median age was 60.5 years (range 28-80). The patients suffered the following malignancies: acute leukemia (4 cases), myelodysplasia (2 cases), chronic lymphatic leukemia (1 case), myeloma multiplex (1 case). The patients were transfused with a median of 30,101 PCs (range 3-91). The median red cell contamination per PCs was 0.36 ml (range 0.0 - 1.85). Blood samples from the patients were taken at least one week after PCs transfusion with a median follow-up of five weeks (range 1-12). One of the 16 patients developed detectable anti-D after 5 weeks (male, 65 years old, acute leukemia). He received PCs in three transfusion episodes (14 PCs), once a week.

Conclusion: It is obvious that the number of patients was too small to make conclusion. We suggest that the risk of alloimmunization after RH incompatible transfusion still persist in hematological patients and it may not be related solely to dose.

Fax: +385 51407335

GROWTH FACTORS AND HEMOTRANSFUSION IN THE TREATMENT OF ACUTE RADIATION BONE MARROW SYNDROME: A CASE REPORT

N. Chikhaidze *, M. Shakhashiri, J. Jikia David **
*Scientific Research Institute Of Hematology And Transfusionology, Tbilisi, Georgia
**Tbilisi State Medical University, Clinic Not, Tbilisi, Georgia

On 2 December 2001 three inhabitants of village Lea (Georgia) were exposed to Sr90 source. They were hospitalized at the Tbilisi S/R Inst. of Hematol. Transfus. on 21st day after exposure. The patient 1-DN at admission most serious clinical condition and was diagnosed as acute radiation dis. cutaneous, opharyngeal and bone marrow syndromes. Complains: Skin necrosis, very severe pain on his back and in throat.

Objective: 1-40°C, T.A. 70/30 Hg.mm, hyperaemia of neck, mouth and (later with bleeding from the nose, tongue, gums and gingival), signs of dehydration on his hands and two large areas of moist desquamation on back. Peripheral blood counts showed severe leucopenia (0.1 G/L) and thrombocytopenia (8.0 G/L). Lymphocytes could not be counted, erythrocytes remained within the normal range, but later anemia developed. Bone marrow aspiration showed very low cellularity.

In the complex therapy (antibiotics of wide spectrum in large dosage, antihymatogenic and antimicrobial therapy), the patient was treated for blood transfusion and bone marrow and skin sample transfusions. The latter was transfused with 5.6 l blood. The patient survived the radiation injury and was discharged after 8 months. Blood transfusions were 12 PCs per donor.

Conclusion: It is obvious that the risk of malignancy is increased in donors who had been exposed to Sr90 source. The investigation of the risk of malignancy in this group is necessary.

Fax: +995 1247191

THE USE OF WHOLE BLOOD AND BLOOD COMPONENT THERAPY IN TREATMENT OF SURGICAL PATIENTS IN TEN YEARS PERIOD (1992-2001)

E. Ambarkova-Vilarova, M. Bulgarevski, Lj. Pockova
Blood Transfusion Service Medical Center Veles, Veles, Rep. of Macedonia

Objective: To make an analysis of using whole blood and blood components at surgical department in ten years period in Medical Center Veles.

Material and Methods: Observation of using whole blood, red blood cells (deplasmated with additional solution and washed) and fresh frozen plasma related to hospitalized patients and per hospital bed. Statistical methods: mean, trend, and HI square test.

Results: In accordance with world wide trend of using blood component therapy, in Medical Centre Veles, surgical department, in ten years period (1992-2001), there are decreasing trend of using whole blood from 97,60% (1992) to 8,65% (2001) and increasing trend of using red blood cells component therapy from 2,40% (1992) to 9,35% (2001). There is also increasing trend of using fresh frozen plasma.

Comparing 1992 and 2001 year, in use of blood therapy related to hospitalised patients at surgical department who received blood and patients who did not receive blood, it appears that there is statistically significant difference between these two years.

Also there is a reduction in average use of blood units per hospital bed.

Conclusion: The elementary reasons for this state are education of clinical doctors, improvement of surgical techniques increasing use of colloid and crystalloids and blood component therapy in acute hipovolemia instead of whole blood and use of intravenous iron in postoperative treatment of anaemia.

Fax: +389 2723 7340

THE POSITIVE ROLE OF ALBUMIN TRANSFUSION IN THE TREATMENT OF ACUTE RADIATION DISEASE: A CASE REPORT

E. Imedashvili *, J. Mallobishvili **
*Tbilisi Scientific Research Institute Of Hematology And Transfusionology, Tbilisi, Georgia
**Tbilisi State Medical University, Clinic Not, Tbilisi, Georgia

The patient 2-MG (exposed to Sr source) was hospitalized at the Tbilisi Inst. Hematology and Transfusionology on 23.12.01 (21st day after exposure). He was diagnosed as acute radiation disease with cutaneous and bone marrow syndrome.

Complains: Severe weakness and very severe pain on his back.

Objective: Signs of Herpes simplex on his face, slight dry desquamation on hands and large area (35/38 cm) of moist desquamation on his back. Peripheral blood counts showed leucopenia, thrombocytopenia, lymphopenia, erythrocytes remained within the normal range; biochemical findings revealed hydroporenia (63 G/L, albumin - 43.5%, globulin - 56.5%).

For local treatment of radiation injuries various antiseptic solutions, antibiotics and radiosensitizers were used. Besides, the patient was given the complex treatment with G-CSF, antibiotics of wide spectrum, antimicrobial and antifungal drugs, vitamins, intensive infusions of various solutions and transfusions of Albumin 20% (50 ml/d 1-10 days, then 50 ml/day after day).

Results: The provided treatment led to the improvment of the patient’s condition the damaged area on his back diminished (73X50 cm) and covered with fibrin layer, biochemical findings: protein - 71 G/L, albumin - 48.8%, globulin - 51.7%.

Conclusion: Intensive transfusions of Albumin 20% play the positive role in correction of hydroporenia in radiation injuries.