

Transfusion-Related Acute Lung Injury (TRALI) and Strategies for Prevention

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Background: Transfusion-Related Acute Lung Injury (TRALI) is a serious complication of blood transfusion. In recent years, TRALI has been reliably shown to be the most common cause of transfusion-related fatalities in the United States and in the United Kingdom. Its prevalence is about 1 in 1323 transfused components; however, it is often under diagnosed. Classically, TRALI present as non- cardiogenic pulmonary oedema. Management is mainly supportive with 72% of cases requiring ventilatory support.

Objective: The aim of the study was to highlight the condition, discuss the pathophysiology of the disease and the preventive measures.

Design: Retrospective study.

Setting: Haematology/Oncology department, Salmaniya Medical Complex, Kingdom of Bahrain.

Method: Two patients with documented and proven TRALI were encountered at our department from January 2004 till end of December 2006. The records of these patients were reviewed for personal characteristics, clinical settings, the components transfused, time onset of the complication, and management and outcome.

Result: Two female patients were found, one 20 years old, was transfused 2 units of packed red blood cells (PRBC) because of low haemoglobin, she developed (TRALI) during the transfusion. The second case was 38 years old lady; she developed (TRALI) two hours following platelets transfusion for thrombocytopenia. Both were managed conservatively.

Conclusion: TRALI is a rare and serious disease, however, we reported two critical cases to raise the awareness of the problem and build a high index of suspicion for these cases especially where the practice of transfusion is common. We also propose some recommendations for prevention.