Letter to the Editor

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Acute Transfusion Reaction

A Case Report

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Dear Sir,

Blood transfusion reactions due to mismatching are fortunately very rare but remain an important cause of mortality and morbidity resulting from transfusion [1, 2]. The most feared consequence of blood transfusion is the severe acute haemolytic reaction that may cause renal failure, disseminated intravascular coagulopathy or death [3–5]. It is almost a maxim that the surgical patient is most at risk for a haemolytic reaction [6].

Clerical errors were the major cause of fatal haemolytic reactions, as shown in most studies [7, 8].

We report the case of a patient receiving blood from the wrong group and discuss his management.

A 50-year-old male with a past medical history of lung tuberculosis presented with right neck lymphadenopathy. The cytological examination of the neck lymph nodes showed planocellular carcinoma and metastases from the epipharynx. Pre-operative laboratory findings were: blood group AB Rh positive; urea, creatinine, Hb, Hct, erythrocytes, plasma volume and activated partial thromboplastin time were normal.

Under general anesthesia, excision of the tumor from the epipharynx was performed as well as radical dissection of the right neck. During the operation, the patient was given transfusion, 1 unit of AB Rh-positive blood. A few hours later, the patient became hypotensive with profuse bleeding in the operation field. AB Rh-positive blood was transfused again. In spite of the transfusion, the patient became anaemic (Hb 6.8 g/dl, Hct 24%) but also had signs of disseminated intravascular coagulation. The patient was given methylprednisolone, heparin, transfusion of platelets, fibrinogen and more blood transfusion. Investigation confirmed the presence of haemolytic anaemia with decreased Hb, a raised reticulocyte count, a positive direct Coombs' test, an increased bilirubin level and LDH of 1,560 U/l. The patient became oliguric, and creatinine rose to 198 μmol/l.

Urinary Hb and haemosiderin were positive. Free urinary Hb was very high. The patient's blood group was rechecked, and it was found to be 0 Rh positive.

The patient was given about 7,000 ml AB Rh-positive blood and 3,700 ml of human plasma of the same blood group. The indication for plasmapheresis was made and plasmapheresis was carried out twice. Before, the patient had been lethargic, tachycardiac, normotensive and oliguric. The bilirubin level was 345 μmol/l, LDH 2,879 U/l. We used a Gambro plasmafilter PF 2000.

During plasmapheresis, the patient was given compatible human plasma (0 Rh positive) and albumin.

After the second plasmapheresis, the patient's condition improved. He was not lethargic anymore, nor icteric, his renal function improved and bilirubin declined; as well, LDH dropped to 325 U/l. The serum antibody titer was significantly reduced after the second plasmapheresis.

The patient was discharged from hospital and has remained well during the follow-up.

In conclusion, transfusion of incompatible blood is very rare, and it is usually a clerical error (this was the case with our patient). In this case, we recommend plasmapheresis because of its good effect on patient condition as shown in this paper.

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