Hemolytic Transfusion Reaction Case Study

A 67-year-old patient ata Florida hospital was given a blood transfusion as part of a minor surgical procedure. Shortly after receiving the donated blood, the patient experienced a hemolytic transfusion reaction and died that same day, December 29, 2007.

Hemolytic transfusion reactions are responsible for the majority of transfusion-related deaths. This type of reaction occurs when antibodies in the recipient’s blood recognize red blood cells in the donated blood, eventually resulting in the destruction of the red blood cells. By comparison, if the donated blood is correctly matched to the blood type of the recipient, the donated blood is perceived as the patient’s own, and no reaction occurs.

In the Florida case, the medical team had anticipated the potential need for blood during or after surgery, and the patient’s blood had been typed 11 days earlier in his hospital room. Initial investigation into the case indicated that the donated blood matched the patient’s blood type.

* What feature of the red blood cell is responsible for its blood type?
* Since the donor and the patient’s blood types matched, how could a hemolytic transfusion reaction have occurred?