Introduction

The Bombay blood group is a rare blood group of this species that functions as an antigen in the Rh system. It is a dominantly inherited trait, and when present, the gene is expressed in all individuals. It is present in two forms, 0 and A, in a ratio of 2:1, with the A variant being the more common. The Bombay blood group is associated with the specific antigen in the Rh system, which is present on the red blood cells of individuals with this trait. The antibody to this antigen is not usually present in the bloodstream, but if it is, it can cause a reaction with the presence of the antigen, leading to a transfusion reaction or hemolytic disease of the newborn. The Bombay blood group is of particular interest to blood banks and transfusion centers.

A case study

A 49-year-old female was admitted to the Blood Transfusion Department of Bombay General Hospital with a history of multiple transfusions during childbirth. She was found to be of Bombay blood group. Her husband was negative for Bombay group antibodies. She was transfused with Bombay-positive blood, and upon transfusion, she developed a transfusion reaction. She was treated with supportive care, and her condition stabilized. This case highlights the importance of knowing the Bombay blood group status of patients and ensuring that compatible blood is used for transfusions.

References


Conclusion

As there is limited data about the incidence of this rare blood group in our country, we recommend further studies to be conducted to determine the prevalence of the Bombay blood group in different regions of India.