



CASE REPORT: NATURALLY OCCURRING ANTI-E RED CELL ANTIBODIES IN A 3-MONTH OLD INFANT

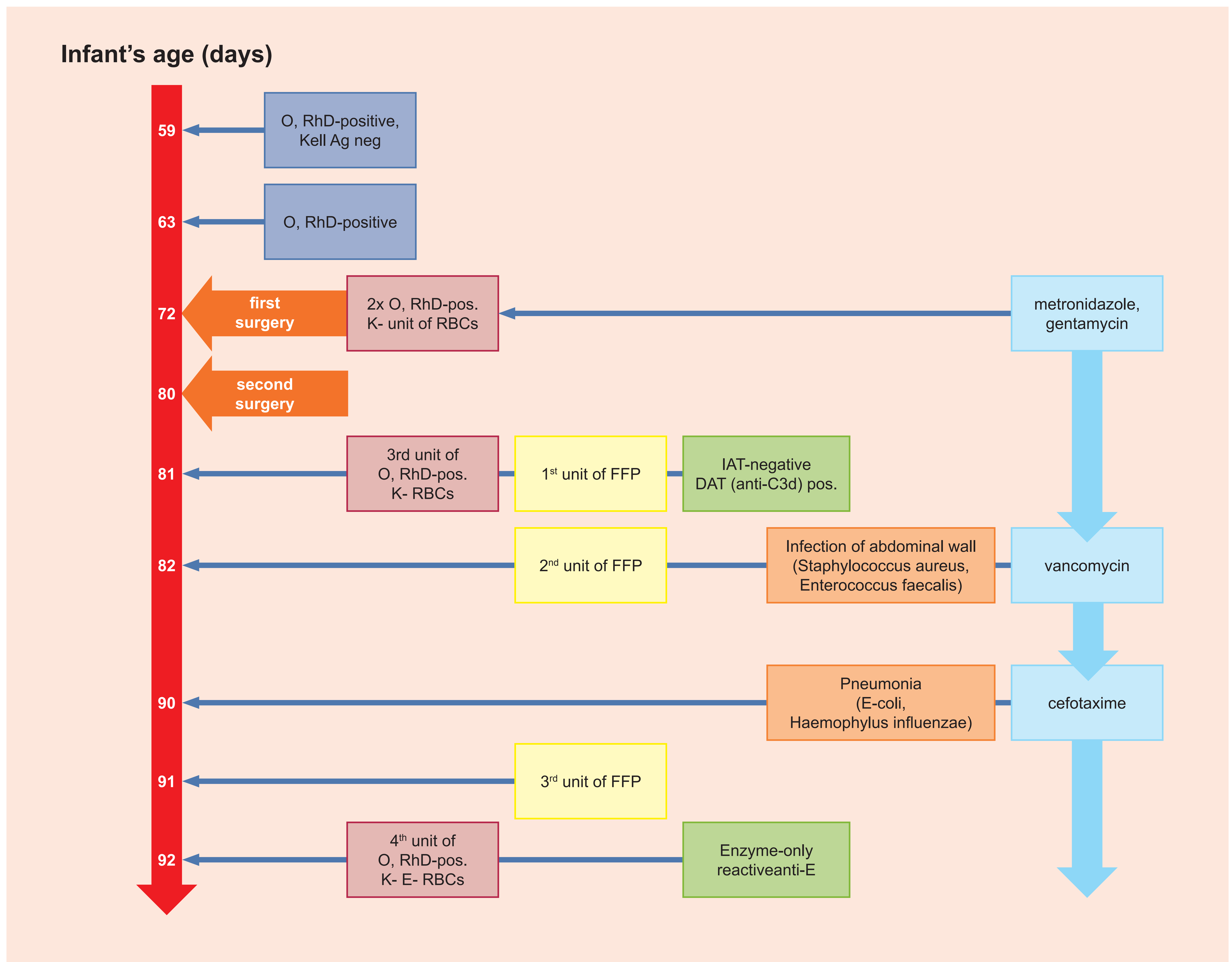
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Background

Before each transfusion of RBCs, pre-transfusion testing such as ABO, RhD and Kell blood grouping with a negative cross-match is advised. This procedure can be reduced to blood grouping only in infants less than 4 months of age. Only a few cases of antibody formation in young infants have been described, the majority of them have resulted from exposure to allogeneic transfusions. Naturally occurring antibodies are rarely found in children.

Case report

During the routine pre-transfusion testing, enzyme-only reactive anti-E red blood cell antibodies were detected in a 3-month old male infant, who underwent an operation of atresia of the extra hepatic bile ducts, followed by a bacterial infection. The infant was E-negative and had already received 3 units of RBC and 3 units of FFP without any adverse reactions. The infant was continuously fed with a combination of mother's expressed breast milk and milk formula. See Figure 1 for the chronology of events.



Materials and methods

All tests were performed using the commercial gel column agglutination method, using the screening cells, RBC panel and enzyme-modified cells (DiaMed, Cressier, Switzerland) according to the manufacturer's instructions.

Results

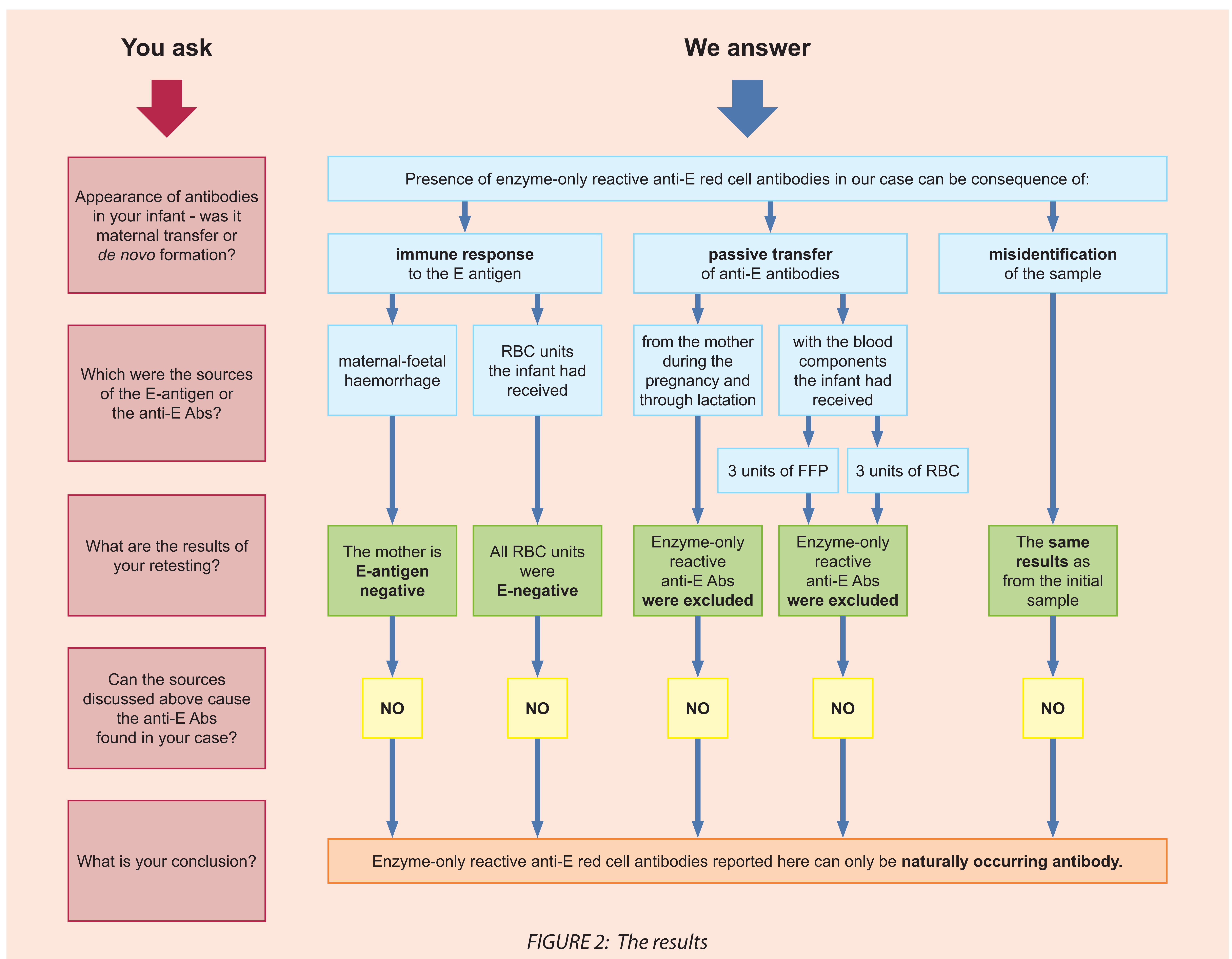


FIGURE 2: The results

Conclusion

Although the naturally occurring anti-E Abs are usually only found in adults, we report here of such a case in a 3-month old infant.

We were able to document the presence of the naturally occurring anti-E red cell thanks to the strategy, which considers the crossmatch compatibility test obligatory prior to every transfusion of RBCs, including in infants less than 4 months of age.

Abbreviations:

RBC: red blood cell
Abs: antibodies

FFP: fresh frozen plasma
E. coli: Escherichia coli

IAT: indirect antiglobulin test
DAT: direct antiglobulin test