

THE ROLE OF IMMUNOHEMATOLOGICAL TESTS IN PREGNANT WOMEN FOR PREDICTING OF HEMOLYTIC DISEASE OF THE NEWBORN (A CASE WITH ANTI-K ANTIBODIES)

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Aim: Presenting the immunohematological aspect of a case of alloimmunization to K antigen, blood group system Kell. The aim is to emphasize the importance of early detection of anti-K antibodies and monitoring of immunohematological dynamics in pregnant women, concerning the increased risk of hemolytic disease of the newborn (HDFN) associated with fetal anemia, hydrops, asphyxia and perinatal death.

Materials and methods: Immunohematological tests, including determination of blood groups by ABO, Rh and K phenotype, screening of pregnant women for autoerythroantibodies and irregular alloerythroantibodies, identification for determining the specificity of detected antierythrocyte antibodies and monitoring of their titer. Direct and indirect antiglobulin test (IAGT) and enzyme test with Bio-Rad diagnostics were used.

Results: This is a case of a 36-year-old woman, K negative, second pregnancy. First pregnancy - birth of K(+)pos. baby. Spouse: K(+)pos. The immunohematological diagnostic discovered the presence of Anti-K antibodies active on IAGT, with a titer of 1:16. Recommendations were given for fetal K phenotype testing and ultrasound follow-up for signs of fetal anemia. The pregnancy ended with the birth of a healthy K(-)neg. baby.

Conclusion: Anti-K antibodies are one of the three (anti-D and anti-c) most important alloantibodies in clinical practice for causing HDFN. In this regard, it is extremely important to screen for irregular alloerythroantibodies in all pregnant women (not just D negatives), to identify them and to monitor their titer. This allows adequate recommendations for further testing and the need for intrauterine blood transfusion.