

# **NEWBORN HEMOLYTIC DISEASE CAUSED BY ANTI-e ANTIBODY.**

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Blood Bank Ploiesti

## **Introduction**

Immunohematology investigation of pregnant women, in routine medical activity, often treated with enough lightly, turns out to be insufficient to predict the occurrence of hemolytic disease of the newborn. Sometimes neonatologist is facing a newborn with serious and prolonged jaundice, born of a mother with Rh positive, which is quite surprising for it, there is need for emergency diagnosis. Direct Coombs test is positive newborn. Irregular antibodies can be emphasized in the serum of children, but also in maternal serum. We are dealing with a hemolytic disease of the newborn.

## **Material**

**Case Presentation:** In O.G. Hospital, a pregnant women at the time, born a healthy child, 2500 g, Apgar 8, which in the next 24-48 hours develop jaundice, with bilirubin 14 mg / dl, with signs of moderate anemia, Hb = 9 mg / dl. Mother is the third birth, uninvestigated biologically and clinically during pregnancy, coming from a socially disadvantaged environment.

Mother's biological constants are normal in routine investigations carried out in maternity include maternal blood group, which is O+. The child's blood group at birth, performed cord blood, the mother is the same. However prolonged jaundice makes the neonatologist ask conducting a direct Coombs test. Direct Coombs test, positive IgG is quite surprising neonatologist.

CTS resumes immunohematology investigations related to the case: blood group and Rh Kell phenotype of the mother: O +, C + c + E + e- K-, with irregular antibodies mother's research and finding an anti-e, in titer of 1/64; Group and child phenotype O +, C + c+ E + e + K-, the child research irregular antibodies, with the presence of anti-e titer of 1/8. It performs father's blood type, showing: O +, C + c + E + e+ K-. To correct anemia blood transfusion deciding compatible with maternal serum O +, C + c+ E + e-K-, and without e antigen, along with other therapeutic measures balances newborn.

## **Results:**

The comparison results groupage erythrocyte mother, child and father in various systems already allow to eliminate a number of possibilities and retain various assumptions. Antigen responsible must be present in the fetus and the father, and absent mother. The choice depends on the specific blood transfusion of maternal antibodies. It should not take charge of the immunization antigen. Transfusion of blood must be made compatible with maternal serum.

## **Conclusions:**

It is very useful: Investigation pregnant since the third month: type and Rh, group, Kell phenotype Rh, Rh and whatever research irregular antibodies to red blood cells to a panel joint. Moreover, it is useful to use red blood cells and father, expressing the antigen that may cause immunization. ABO serum of incompatibility between the mother and father's red blood cells, but not always allow for the diagnostic use of these red blood cells.