

# Prevention of rhesus immunization in the presence of a potential sensitizing factor

**Nasirova Durdonakhan Yusupjonovna.**  
Master's student of obstetrics and gynecology  
**Saidjalilova Dilnoza Djavdatovna**  
PhD; professor

**Annotation:** In this article, prevention of rhesus immunization in the presence of a potential sensitizing factor, the development of hemolytic disease of fetuses and infants, and disorders of fetal erythrocytes are described in detail

**Key words:** potential sensitizing factor, prevention of rhesus immunization, hemolytic disease, rhesus factor

## Introduction:

The development of hemolytic disease of fetuses and babies begins in the mother's womb and is caused by the incompatibility of the blood of the mother and the fetus according to the Rhesus factor or ABO blood group. In cases of Rhesus-conflict, Rhesus-antibodies are produced in the mother's body, they pass through the placental barrier into the blood of the fetus and cause hemolysis of erythrocytes. The intensity of hemolysis of erythrocytes depends on the concentration of the titer of Rhesus antibodies in the mother's blood.

## Literature analysis and methodology:

If rhesus-positive erythrocytes enter the blood of a person with a negative rhesus factor, they are perceived as foreign by the immune system, and the body begins to produce antibodies against them. As a result, rhesus conflict occurs. For this reason, the rhesus factor of the parents is very important for the future child. If both father and mother have a positive Rh factor, then this child will also be born with a positive Rh factor. If the future parent has a negative rhesus factor, the child's rhesus factor will also be negative. Even if the mother's Rh factor is positive, and the father's is negative, the pregnancy will go smoothly. However, when the mother is rhesus negative and the father is rhesus positive, a rhesus conflict occurs and poses a risk to pregnancy. In this case, the body of a pregnant woman begins to produce antibodies against the fetus with a positive rhesus factor. The immune system of pregnancy perceives the erythrocytes of the child with a positive rhesus factor as foreign.

## Results:

Rhesus antibodies penetrate the placenta and destroy the erythrocytes of the fetus. In this case, the amount of bilirubin in the blood increases and the child's body turns yellow. The liver and spleen begin to work rapidly and increase in size to replace the decaying erythrocytes. But he can't do it. As a result, the child may develop anemia, intoxication (poisoning), dysfunction of vital organs. The disease develops after the birth of a child, and it requires transfusion of rhesus negative blood.

With the help of the right treatment, this negative situation, which at first glance seems like a tragedy, can be prevented. It takes into account how the woman's previous pregnancy went. Antibodies are formed in the blood in 3-4 percent of women during childbirth, and in 10-15 percent of cases after childbirth. That is, it depends on how many erythrocytes of the fetus have passed into the blood circulation system of the mother. In all cases, it is necessary to take measures to prevent rhesus conflict.

## Discussion:

In the first pregnancy, the mother with a rhesus negative factor does not have antibodies in her blood, so the rhesus conflict with the fetus does not occur. During the first pregnancy, the body does not have time to produce antibodies in large quantities. Nevertheless, there are "memory tissues" in the woman's body, and

during the next pregnancy, they quickly start the production of antibodies against the Rhesus factor. Therefore, the amount of antibodies is constantly measured in pregnant women with rhesus negative blood. In order for the child to be born healthy, the necessary procedures should be carried out during pregnancy, and the future mother should be constantly under the supervision of a doctor.

When a pregnant woman with a negative rhesus factor gives birth, the baby's rhesus factor and the amount of bilirubin in his blood are checked. If the child's blood shows a positive rhesus factor, the mother will be vaccinated with anti-rhesus immunoglobulin without delay within 72 hours. This prevents the risk of rhesus incompatibility in the next pregnancy of the woman. This applies to a woman who has had a miscarriage, as well as to those who have experienced an ectopic pregnancy.

### **Conclusion:**

In conclusion, it can be said that if pregnant women pay attention to their health and fetus based on timely recommendations, changes in the blood will not pose any danger to her and the unborn child. The blood of all pregnant women is tested for the Rhesus factor. Antibodies to the Rhesus factor are detected in women with Rhesus-negative blood. A significant increase in the concentration of antibody titers in the last weeks of pregnancy is an indication for induction of labor, i.e., stimulation of labor forces and delivery at 36-37 weeks of pregnancy.

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