

Common Diseases in Newborns Due to Abo Blood Group Mismatching in ParentsDev Desai^{1*} and Maria Eleni Malafi²¹Department of Smt. NHLMMC, India²Medical School, Democritus University of Greece***Corresponding Author**

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Hemolytic disease of the newborn, also called erythroblastosis fetalis refers to a blood disorder due to ABO incompatibility between mother and fetus. Manifestation of the disease ranges and depends on specific factors. In severe cases phototherapy is the therapy of choice. Potential consequences of HDN are jaundice, anemia and fetal hydrops. In order to prevent ABO-incompatibility's occurrence, detection of mother's blood type and monitoring during and post birth are necessary.

Main text:-

ABO blood group incompatibility between mother and newborn can lead to many serious and potentially life-threatening illnesses and complications.

The ABO blood group consists of three allelic forms, A, B and O and child's genotype and phenotype arises from parental genetic profile. The presence or absence of certain antigens on red blood cells determines blood type. The most common type of ABO incompatibility occurs when the mother's blood type is O and the newborn's blood type is A or B. This condition refers to the common hemolytic disease of the newborn (HDN).

Hemolytic disease of the newborn (HDN) is a condition that occurs when the mother's antibodies attack the baby's red blood cells [1]. In ABO incompatibility, the mother's antibodies recognize the baby's red blood cells as foreign and attack them. HDN can range from mild to severe, with severe cases leading to jaundice, anemia, brain damage, and even death. The severity of HDN depends on the amount of antibodies in the mother's blood, the baby's blood type, and the baby's general health [2]. In most cases of ABO incompatibility, HDN is mild and resolves spontaneously without treatment. However, in severe cases, the baby may need phototherapy to treat jaundice or a blood transfusion to replace damaged red blood cells [3].

1. Abo Incompatible Jaundice

ABO incompatible jaundice is a common complication that occurs in newborns when the mother's antibodies attack the baby's red blood cells. Jaundice is the yellowing of the skin and whites of the eyes due to excess bilirubin in the blood. Situation. In ABO incompatibility, the mother's antibodies cause the baby's red blood cells to break down faster than normal, resulting in high bilirubin levels in the blood [4,5]. ABO incompatible jaundice is usually mild and goes away on its own within a few weeks. However, in severe cases, the baby may need phototherapy or exchange transfusion to lower the level of bilirubin in the blood [6,7].

2. Anemia

Anemia is a condition in which the body does not have enough red blood cells to carry oxygen to the tissues [8]. In ABO incompatibility, the mother's antibodies attack the baby's red blood cells, causing them to break down faster than normal. This can lead to anemia, which can cause fatigue, pale skin, and difficulty

breathing. Mild cases of ABO-incompatible anemia may not require treatment because the body is able to replace damaged red blood cells on its own. May be necessary [9].

3. Fetal Hydrops

Hydrops fatalism is a serious condition that occurs when there is too much water in the baby's tissues, causing swelling and other complications. In ABO displacement, hydrops fatalism is rare, but can occur in severe cases when maternal antibodies attack the baby's red blood cells, causing severe anemia and other complications [10]. Hydrops fatalism can be life threatening and requires immediate medical attention. Treatment includes blood transfusions, drugs that reduce fluid accumulation, and delivery if necessary. Prevention and treatment [11].

The best way to prevent ABO blood group incompatibility is to determine the mother's blood type early in pregnancy and monitor the baby's blood type after birth. Babies should be closely monitored for signs of complications such as EDEM. [12].

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