RH FACTOR TEST

ENSURING THE HEALTH OF YOUR UNBORN CHILD

Untreated Rh incompatibility can lead to miscarriage, pre-term deliveries and hemolytic anaemia in newborns

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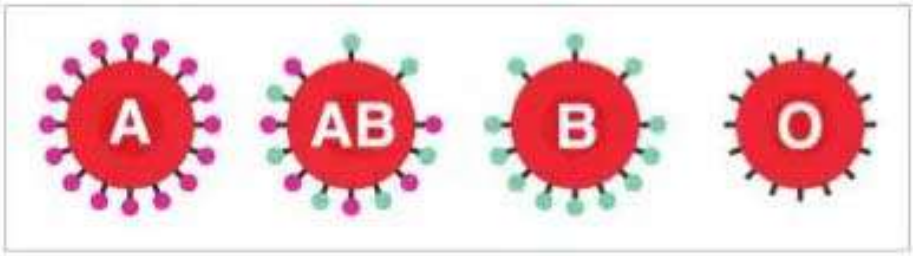

THE concept of prenatal care has evolved. Now, all pregnant women must be screened for Rh factor during their first antenatal visit to ensure timely diagnosis of Rh alloimmunisation and medical intervention. Rh incompatibility or difference in the Rh factor of a mother and her child can have serious consequences on pregnancy and the health of the unborn child if left untreated.

Lack of awareness about Rh incompatibility prevents many women from getting tested and treated on time, resulting in miscarriages, preterm births and serious health challenges in the unborn child. Rh incompatibility is found in around two to five per cent of pregnancies only. In Kerala, around 80 per cent of women who come to the outpatient department and obstetricians are aware of Rh alloimmunisation.

How does it manifest

Rh incompatibility normally occurs when the mother is Rh-negative and the husband is Rh-positive. If the baby is Rh-positive, it can become incompatible with the mother's and cause problems.

In first pregnancies, there is less than one per cent chance of alloimmunisation. So, it is left to the discretion of the treating obstetrician to check for the indirect Coombs test (ICT). It can be done in the first six months of the antenatal period and monthly thereafter. The incidence of hemolytic disease in the newborn is rare and is seen in three to 80 per one lakh births. Out of this, 80-90% can be treated and cured.

MIND & BODY

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(The author is professor and Head of Department, OBGYN, at Jubilee Mission Medical College, Thrissur)

Indirect Coombs test

To a maternal serum sample, Rh-positive RBCs are added. If there are any antibodies in the maternal serum, it coats over these positive RBC antigens. Then it is washed so that excess protein is removed and then the Coombs sera (anti D immunoglobulin) is added. Then, we look for the highest dilution that would trigger agglutination. If the value is over 1:16 (some people take it as 1:32), then we have to subject the patient to the next test. When there is fetal anaemia, it is normal for blood to get redirected to the brain. So we have to check the peak systolic velocity in the middle cerebral artery of the fetus through doppler studies. If the value is more than 1.5 MoM, it indicates significant anaemia in the fetus, telling us that the fetus will require intrauterine transfusion of blood if it is between 24-32wks of gestation, to keep the baby alive until adequate maturity. After the baby is born, the doctor checks for fetal haemoglobin, haematocrit, total bilirubin, cord blood bilirubin and the direct Coombs test.