

Causes and Treatment of Congenital Heart Block in Neonatal Lupus

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DESCRIPTION

Neonatal Lupus is not the same as lupus. Anti-SSA/Ro and/or anti-SSB/La antibodies from the mother that damage the foetus are linked to this uncommon illness. The infant may have a skin rash, liver issues, or low blood cell counts after birth, but these symptoms usually go away entirely by six months without any long-term consequences. Passive transmission of autoantibodies from the mother to the foetus causes foetal and neonatal illness in Neonatal Lupus (NL), an autoimmune disease. Cardiac and cutaneous signs are the main symptoms. The most severe side effect of NL is total heart block.

Some infants only experience skin symptoms; some only experience cardiac problems, and occasionally both. Less frequent results include liver illness, an abnormally large head circumference, and/or low blood counts of the blood's white blood cells, which fight infection, red blood cells, which carry oxygen throughout the body, and platelets, which aid in blood clotting (anemia). Specific autoantibodies pass from a pregnant woman to her growing foetus across the placenta and cause neonatal lupus. These autoantibodies cause unidentified embryonic tissue damage through an unknown mechanism.

Causes

The rare acquired condition known as neonatal lupus is brought on when certain antibodies are transferred from a pregnant mother to the growing foetus through the placenta. Antibodies against Ro/SSA, La/SSB, or both are typically involved. In a few rare instances, the skin rash linked to neonatal lupus has been linked to a different autoantibody that reacts with a different kind of ribonucleoprotein. Anti-RNP is not thought to cause additional symptoms like congenital heart block, but a few isolated cases have lately been published, the significance of which is not yet understood.

Symptoms

Neonatal lupus symptoms can be observed even before birth, especially if a doctor is keeping an eye on the kid. A heart block is a congenital heart defect that disrupts the heart's usual electrical activity and can start in the second or third trimester. The heart may beat abnormally, skipping beats, racing, slowly, or in another way. The following signs of a full heart block in an infant include cyanosis (a blue or purple appearance to the skin), difficulties feeding, severe weariness, and lethargy.

Newborns with neonatal lupus may have skin lesions at birth. On the face, scalp, upper back, or chest, the rash frequently takes a few weeks to develop. This rash should completely disappear without any visible scarring within a year after starting to recede after a few weeks or months. The baby could also have liver issues, and their lab results could indicate anaemia, a low white blood cell count, a low platelet count, and other blood abnormalities.

Diagnosis

Babies with a congenital heart defect and/or a characteristic rash should have neonatal lupus erythematosus clinically suspected, and the diagnosis should be verified by testing the mother and child for the ANA, Ro, and La autoantibodies. A complete blood count and liver function tests should be performed as part of blood tests. If heart block has not already been identified before to birth on ultrasound as an exceptionally slow heart rate in the 16th to 26th week of pregnancy, an ECG is advised. In the presence of typical clinical characteristics, skin biopsy is typically not necessary. According to histology, the adnexae are affected by basal layer vacuolar alterations as well as a superficial and deep periadnexal and perivascular lymphocytic infiltration.

Treatment

The type of treatment will depend on how bad the illness is and how bad the symptoms are as a result. A rash should go away without intervention after it appears; no medical attention is required. If a patient needs treatment, doctors frequently suggest topical steroids. However, parents and other adults who are responsible for children should use caution in the sun and cover the baby's skin with clothing or sunscreen. To identify whether there are any blood or liver issues that need to be addressed, doctors will probably do a thorough check. Depending on whether the testing for these consequences is positive, different treatments will be applied. A pacemaker will probably be required for infants with serious cardiac obstruction. Less severe cases may need to be monitored frequently to maintain their health.

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