RhoGAM and Rh Negative Moms: A Life-Saving Match

Having worked as a Teratogen Information Specialist at MotherToBaby for close to 10 years, I have become well versed in the different exposures people commonly ask about. Allergy medications in the spring, sunscreen and bug spray in the summer, and cough and cold medications all winter long. So, when I logged onto our live chat service at mothertobaby.org on a Tuesday morning, I was surprised to see a question that doesn't come up very often. Natalie, pregnant with her first child, asked: "I'm 24 weeks pregnant and my midwife says I need a RhoGAM shot at my next appointment. What could happen to the baby if I do not get this shot?"

Blood Type Basics

Blood type is hereditary, which means it is passed down from your parents. There are 8 common blood types: A+, A-, B+, B-, O+, O-, AB+, and AB-. If your blood type ends in a minus sign (like A- or O-), you are Rh negative. If it ends in a plus sign (like A+ or B+), you are Rh positive. Most people in the United States are Rh positive, but about 15 out of every 100 people (15%) are Rh negative. A blood test early in pregnancy will tell you your blood type.

What is Rh Incompatibility?

During pregnancy, if a woman who is Rh negative is pregnant with a fetus that is Rh positive, a condition called Rh incompatibility can happen. Rh incompatibility becomes an issue if any of the Rh positive red blood cells from the fetus get into the mom's Rh negative bloodstream. This is most likely to occur during a miscarriage, certain prenatal tests (like amniocentesis or CVS), a fall, labor and delivery, or if the placenta separates from the wall of the uterus. When this happens, the mom's immune system might treat the fetus' red blood cells as something that shouldn't be in the body (like an infection) and start making antibodies against them. In most cases, these antibodies will not negatively affect the current pregnancy, but they might affect future pregnancies.

When Antibodies Attack

Once the mom's body makes anti-Rh antibodies, they stay in her system for life. If she becomes pregnant again with another Rh positive fetus, the antibodies can cross the placenta and attack the fetus' red blood cells. This can lead to a condition called hemolytic disease of the fetus and newborn (HDFN). Without enough red blood cells, the fetus cannot carry enough oxygen during development and complications such as jaundice (yellowing of skin and eyes), hemolytic anemic (low red blood cell count), hydrops fetalis (fluid buildup in the baby), high bilirubin levels, kernicterus (brain damage from the bilirubin), and even death can occur.

RhoGAM to the Rescue

Fortunately, there is a way to lower the chance of HDFN: The RhoGAM shot. Typically given around 28 weeks of

pregnancy (and again within 72 hours of birth if the baby is confirmed to be Rh positive), RhoGAM is an antibody that helps stop the Rh negative mom from making antibodies that could attack a future fetus' red blood cells and cause HDFN. Before RhoGAM was available, thousands of babies died from the condition every year. Nowadays, the chance of HDFN is less than 0.1% when the shot is given, making RhoGAM a remarkable intervention.

Protecting Your Future Babies

After sharing this information with Natalie, I summarized our conversation with a quick recap. Since she is Rh negative, her midwife was recommending a RhoGAM shot at 28 weeks to prevent the development of antibodies that could negatively affect a future pregnancy. An increased risk for miscarriage or birth defects is not expected since the shot is given later in pregnancy and Natalie is past the "critical period" for those outcomes to occur. Pregnancy complications, like preterm delivery and low birth weight, have not been reported in the available studies examining the use of RhoGAM in pregnancy. Natalie felt reassured after receiving this information and decided to proceed with the RhoGAM shot at her next midwife appointment.

If you have questions about the RhoGAM shot or any other exposures in pregnancy, please feel free to reach out to MotherToBaby by phone, chat, text, or email to receive evidence-based information that can help you make an informed decision.

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