Rhogam

What is Rh- Blood?

Human blood either has the "Rh factor" or it does not. If you have the Rh factor in your blood you're Rh+ and you have nothing to worry about. But if you do not have the Rh factor in your blood then you are Rh- and it could cause complications. Your Rh- blood recognizes the Rh factor as an intruder to your bloodstream and begins to attack it (form antibodies against it). If your baby is Rh+ and your blood mixes with your baby's, then your body could view your baby as a foreign invader and begin attacking the Rh factor in his or her blood.

The Risk is Low

At first you may be scared. If you have Rh- blood and your baby is Rh+, your body could hurt your baby! But in reality, the chances of that happening are very slim. Your blood and your baby's blood do not mix. They flow side by side, but separated by a thin membrane. Since the blood doesn't mix, no antibodies are manufactured by your body.

Certain things can cause a mother and baby's blood to mix. Sometimes a mix occurs during miscarriage, amniocentesis, chorionic villi sampling (CVS), or major trauma (such as a direct fall on the belly or a car wreck). Mixing can also occur during birth. It's rare during a natural birth where the placenta is allowed to separate on its own. However, interventions increase the risk that a mother and baby's blood will mix.

The Shot

The anti-D injection (called Rhogam for simplicity's sake) works much like an immunization. It puts a small amount of antibody into the mother's body, effectively "fooling" her body into thinking that the problem has been taken care of. The shot is very effective.

However, Rhogam must be given within 72 hours of the trauma. After that the body will have begun making its own antibodies and the Rhogam won't work.

Drawbacks

The 72 hour limit means that any shot given in the prenatal period is probably arbitrary. Doctors must admit that the 28 week dose (and 36 week with some doctors) is simply given at a random date chosen with the hope that it may protect some babies. An injection given after a known trauma is much more effective and makes much more sense.

Rhogam is made from human blood plasma (as are all anti-D preparations.) It's highly filtered, but it is still a human blood product. There is still risk of disease from donor blood. There are also other side effects such as swelling and inflammation. Hives and anaphylactic effects are among more severe side effects. Some studies have indicated that having the injection may affect the immune response of both mother and baby to other foreign substances entering the blood stream.

Pregnant women who are Rh- and whose partners are Rh+ (two Rh- parents must produce an Rh- baby) must weigh carefully the risks and the benefits of each Rhogam injection. If a baby's blood is attacked by Rh antibodies, the newborn will have Rh disease. This is most likely to happen with the baby coming after a mother is sensitized, not during the pregnancy that the sensitization occurs in. According to the March of Dimes almost all babies born with Rh disease will be cured, but it is still a very serious condition requiring a lot of intensive care.

If a mother chooses to have the injection, she must face any possible side effects on her own body. There may also be side effects for her baby. In addition, she must be sure that the prenatal dose is given within 72 hours of any trauma.

Foregoing Rhogam

A woman is free to reject or accept any combination of Rhogam (for instance, she can refuse it prenatally and still have it after birth). If a woman chooses not to have Rhogam, there are things she can do to make it more likely that her blood and her baby's do not mix.

A natural, intervention free birth is the best birth for an Rh- mother wishing to avoid Rhogam. A completely natural birth gives the lowest risk of maternal and fetal blood mixing. Wait for the cord to stop pulsing before it is cut. This allows most of the blood to flow into the baby's body.

The third stage of labor is possibly the most vital part of labor to keep natural. Allow the placenta to separate naturally and be born gently. Strong contractions will help the placenta to shear cleanly off the surface of the uterus and continued contractions will seal off the blood vessels. A mother can squat and birth the placenta gently. If the placenta has fully separated, very gentle cord traction may bring it out.

If the birth is natural and the placenta is born gently, the chances of mother and baby's blood mixing are very low, and so the risk of maternal sensitization is also quite low. Blood can be drawn from the umbilical cord to determine the baby's blood type.

Making the Choice

Choosing to have or not to have prenatal Rhogam is not easy. Choosing a human blood product always requires careful weighing of the pros and cons. Postpartum, Rhogam decisions can be made after the baby's blood type is discovered. Prenatally, Rhogam is almost always prescribed routinely and arbitrarily. With sound prenatal nutrition and a gentle natural birth, the risks of mother and baby's blood mixing are minimal. Seek to have a healthy pregnancy and be fully informed before consenting to having any foreign substance injected into your body.