Infants of Diabetic Mothers

Infant of a diabetic mother (IDM) is the medical term for a baby born to a woman who has diabetes (*high blood sugar*) during pregnancy. There are two types of diabetes the mother can have during pregnancy:

- Pre-existing diabetes that the mother had before pregnancy.
- Diabetes that shows up during pregnancy (*gestational diabetes*).

CAUSES

During pregnancy, high levels of sugar in the mother's blood cross the placenta, through the umbilical cord, and go to the developing baby (*fetus*). This raises the baby's blood sugar. The baby's body responds by producing more insulin, which regulates blood sugar level.

This combination of high blood sugar and more than a normal amount of insulin causes an increase in the amount of fat and tissue in the developing baby. This usually makes the baby larger. This large size makes IDM's more prone to injuries during delivery. IDM's also have a higher risk of being born early (*premature birth*). Most IDM's have no problems other than being large at birth.

Once the baby is born, the most common problem of IDM's is low blood sugar. This is because the baby is not getting blood sugar from the mother, once the umbilical cord is clamped, so the elevated insulin levels being produced by the infant are no longer needed.

SYMPTOMS

Low blood sugar usually shows up in the first hours after birth. It can cause no symptoms at all (only picked up by a blood test) or may cause:

- Shakiness.
- Rapid breathing, or breathing difficulty.
- Weak cry.
- Poor feeding.
- Sleepiness.
- Convulsions.

Low blood calcium can cause many of the same symptoms as low blood sugar. Low blood calcium may occur along with low blood sugar for a few days after delivery.

Low blood sugar and calcium are temporary problems that usually go away in one or more days after birth.

IDM's may have other problems, such as:

- Yellow color to the skin (*jaundice*).
- Breathing problems.
- Heart problems.
- Birth defects (more common when the mother has pre-existing diabetes and when diabetes is poorly controlled during pregnancy).

DIAGNOSIS

After birth your baby's caregiver may perform blood tests on the baby. These tests may show low levels of blood sugar or calcium. Your caregiver may do other tests to check for other problems.

TREATMENT

Treatment depends on the baby's gestational age and what problems show up. Your caregiver may:

- Monitor the baby's blood sugar and calcium level.

- For low blood sugar, give the baby a source of sugar. This is best done by breastfeeding, but may also use the mother's own pumped milk, or a formula feeding. Feedings should continue on a regular basis to prevent low blood sugar. If the low blood sugar is severe or does not respond to feeding, the baby may need to receive a type of sugar (*glucose*) through a vein.
- Give oxygen if the baby is having breathing difficulty. Sometimes a breathing machine may have to be used.
- Take care of any problems that occur due to a birth injury.
- Take care of any problems that arise due to a birth defect.

HOME CARE INSTRUCTIONS

Most of the time the home care for IDM's is no different than other babies. If your baby has any special needs or treatments, follow the instructions of your child's caregiver.

SEEK MEDICAL CARE IF:

- Your baby is not feeding well.
- Your baby has jaundice.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your baby has breathing difficulty.

Document Released: 10/14/2008 Document Re-Released: 12/06/2010
ExitCare® Patient Information ©2011 ExitCare, LLC.