Anemia of the Newborn

Anemia is a problem where the number of red blood cells in the blood is too low. The red blood cells carry oxygen and deliver it to the rest of the body. Normally, the newborn does not begin making new red blood cells until 6-8 weeks after birth. Most babies become mildly anemic 4-8 weeks after birth. This is called *physiologic* (normal) anemia. Once the baby starts making red blood cells, the anemia is slowly corrected. This type of anemia does not cause any symptoms and does not need treatment. There are also other less common causes of anemia in a newborn. If the newborn's red blood cells are broken down too fast or there is rapid loss of blood, treatment may be required.

CAUSES

The *bone marrow* is the tissue inside of bones that makes your baby's blood. Red blood cell production normally starts by the time the baby is 6-8 weeks old. Till then the red cells that are lost (through normal breakdown) are not replaced, and most babies develop a normal anemia. Reasons for an abnormal anemia in a newborn include:

- Blood loss before or during delivery.
- The blood type of the newborn and the mother may be different. Sometimes this can cause a temporary breakdown of too many red cells after birth.
- Premature babies can become anemic very fast. This problem is described in "Anemia of Prematurity".
- Rare inherited problems of red blood cells which cause too rapid break down of red cells.
- Infections developed during or after birth.

SYMPTOMS

- There may be no symptoms, if anemia is very mild (as in physiologic anemia).
- If there is more than a very mild anemia, the baby can:
  - Look pale.
  - Have a fast heart rate.
  - Have a fast breathing rate.
  - Become tired easily while feeding.
  - Be sleepy or less active than expected.
  - Have a poor appetite.
- If there is rapid breakdown of red cells:
  - The skin may look yellow (*jaundice*).
  - The white part of the eye may look yellow.

DIAGNOSIS

- Your caregiver may ask about your family and pregnancy history.
- Your caregiver may ask about the period before and after childbirth (*perinatal period*).
- Depending on the history and exam findings, some or all of the following tests may be done:
  - Blood tests.
  - *Ultrasonogram* (a test that uses sound waves to examine internal organs) to look for possible problems with the liver or spleen and to look for internal bleeding.
  - *In rare cases*, a sample is obtained from the bone marrow to see if there are specific problems with the making of new blood cells.

TREATMENT

As noted above, physiologic anemia does not require treatment. For one of the less common types of anemia, the treatment depends upon the exact cause and severity of the anemia and factors that caused it.

If your baby is losing large amounts of blood or the blood count is very low, blood transfusion may be needed.

If your baby develops jaundice, your caregiver may advise exposing the baby to special lights that help the body get rid of the jaundice (*phototherapy*).

HOME CARE INSTRUCTIONS

- Watch for any problems as described in the sections below.
- Follow through with blood tests and office visits recommended by your baby's caregiver.
- Continue with your daily routine for feeding, bathing, and general care of your baby unless you are advised otherwise.

SEEK MEDICAL CARE IF:

- Your baby becomes paler.
- Your baby is less active than before.
- Your baby does not feed properly or feeding problems become worse.
- Your baby's skin begins to look yellow or the yellow color is worse.
- Your baby's eyes begin to look yellow or the yellow color is worse.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your baby feeds very little or not at all.
- Your baby has a very weak cry or it is hard to wake your baby.
- Your baby goes 12 hours with a dry diaper.
- Your baby is breathing very fast.
- Your baby develops any fever 100º F (37.8º C) rectal or above.

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