Newborn Jaundice

Jaundice is a yellowish discoloration of the skin and whites of the eyes (*sclera*). Some degree of jaundice is common in newborns. A small amount of jaundice in the newborn is normal because they have an immature liver. The liver may take a week or two to develop completely and be able to metabolize bilirubin. However, the baby still has to be watched closely until all the jaundice goes away.

CAUSES

Jaundice is caused by too much bilirubin in the body (*hyperbilirubinemia*). Bilirubin is produced from the breakdown of red blood cells. It is removed from the bloodstream by the liver. In over half of newborns, the liver is not yet working to full capacity. During pregnancy, the placenta removes bilirubin from the fetus and sends it to the mother to be metabolized by her liver. The bilirubin builds up in the baby's blood and skin causing jaundice. The jaundice often first appears at 2 to 5 days of age. It usually clears up in a few days with ultraviolet light (fluorescent light) treatment.

Causes of hyperbilirubinemia:

- Prematurity.
- Infection of the baby.
- Infection in the blood stream of the baby (*hemolytic anemia*).
- Severe bruising at delivery.
- Rh factor problems in the mother (the mother is Rh negative and baby is Rh positive).
- Low functioning thyroid gland (*hypothyroid disease*).
- A hereditary disease of the intestine and lungs (*cystic fibrosis*).
- The G6PD enzyme
- Too many red blood cells seen in small-for-gestational-age babies and in twins on occasion.
- The mother is type O and the baby is type A, B or AB.
- Abnormal shaped red blood cells (*sickle cell anemia*).
- Congenital measles, herpes, toxoplasmosis and syphilis.
- Cephalohematoma.
- Not enough enzymes necessary to metabolize pyruvate that is necessary to help give energy to the body.
- Certain medications.
- Breastfeeding.

DIAGNOSIS

Blood and skin tests are taken depending on the baby's age and the amount of jaundice.

SYMPTOMS OF JAUNDICE

- Yellow skin.
- White part of the eyes appear yellow.
- Tiredness.
- Poor eating
- Poor cry.

TREATMENT

Treatment for mild jaundice is usually not needed.

- Phototherapy.
- Increase fluids through the vein.
- Stop breastfeeding.

COMPLICATIONS (WHEN SEVERE):

- Deafness.
- Cerebral palsy, problems of the nervous system that causes the body to have poor muscle control, spastic muscles, paralysis, poor speech and other neurologic problems.
- Kernicterus is brain damage caused by very high levels of bilirubin in the blood that gets into the brain.

Treatment for Kernicterus:

- Extensive phototherapy.
- Increase of body fluids (intravenous fluids).
- Tube feed with formula if necessary.
- Exchange blood transfusion with Rh and A,B,O incompatibility.
- Intravenous immunoglobulin (Ivig).

HOME CARE INSTRUCTIONS

- Watch your baby for signs of or worsening of the jaundice. The amount of yellow color in the skin is best seen by viewing your baby undressed in natural sunlight by a window. It is not easy to see under artificial light.
- If prescribed, place the baby under an ultraviolet (Bili) light or blanket as directed. Cover the child's eyes while under the UV light. Sunlight and Bili-lights help the liver do its job.
- Encourage frequent feedings. Use added fluids only as directed. Passing more stool and urine helps improve the jaundice.
- Follow up with the child's caregiver as instructed, especially if your baby goes home from the hospital within two days.
- Supplement breastfeeding with formula until the jaundice gets better.

SEEK MEDICAL CARE IF:

- Jaundice lasts longer than 3 weeks.
- The baby is not nursing well or feeding poorly.
- The baby becomes fussy.
- The baby is tired more than usual.
- You think the baby is jaundiced.
- Your baby has a rectal temperature of 100.5º F (38.1° C) or higher lasting more than a day **AND** your baby is over age 3 months.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your baby starts to act sick, becomes very sleepy or is hard to wake.
- Your baby is eating poorly or stops wetting diapers normally.
- **Your baby is 3 months old or younger with a rectal temperature of 100.4º F (38º C) or higher.**
- Your baby is older than 3 months with a rectal temperature of 102º F (38.9º C) or higher.
- The baby becomes more yellow (*jaundice*).
- The baby's abdomen, arms or legs are yellow.
- The baby is not gaining weight.
- The baby develops other symptoms that concern you.
- The baby develops an unusual or high-pitched cry or abnormal movements.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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