



The Lethal Consequences of Untreated Neonatal Hypoglycemia

Giulia Polleri*

Department of Pediatrics, University of Health Sciences Turkey, Ankara, Turkey

DESCRIPTION

Neonatal hypoglycaemia characterized by low blood sugar levels in newborns, can be concerning, but understanding its causes, symptoms, and management is essential for ensuring a healthy start to a baby's life.

Neonatal hypoglycemia, often referred to as "newborn low blood sugar," is a medical condition in which a newborn's blood glucose levels fall to lower than the recommended range for their age. Glucose, derived from the digestion of carbohydrates, serves as the primary source of energy for the body's cells, including those of the brain. Maintaining adequate blood glucose levels is important, especially for newborns, as their developing brains are highly dependent on glucose for energy.

In the late stages of pregnancy, a fetus primarily depends on glycogen stores in the liver for energy. Some newborns may have limited glycogen reserves, making them more susceptible to low blood sugar levels after birth.

Premature infants are at a higher risk of neonatal hypoglycemia as their bodies may not have had sufficient time to develop glycogen stores and regulate glucose levels effectively. Babies born to mothers with diabetes, particularly gestational diabetes, are more chances to experience neonatal hypoglycemia. High blood sugar levels in the mother can lead to an excessive transfer of glucose to the fetus, causing the baby's pancreas to produce excess insulin.

Insufficient feeding or a delay in initiating breastfeeding can result in low blood sugar levels, as the baby may not receive the necessary carbohydrates to maintain glucose levels. Some newborns may produce excessive amounts of insulin in response to elevated glucose levels in the mother's blood during pregnancy, which can cause hypoglycemia after birth.

Identifying the signs of neonatal hypoglycemia is important for timely intervention. Newborns with low blood sugar may exhibit shivering or tremors, which can be noticeable, especially during feedings. Hypoglycemic infants can become increasingly irritable, often crying more frequently and with greater intensity. Babies with neonatal hypoglycemia may have difficulty latching onto the breast or bottle and may feed ineffectively.

A baby's energy levels may drop, causing them to appear listless and less responsive. In severe cases, neonatal hypoglycemia can lead to a bluish tint in the baby's skin, known as cyanosis, indicating a lack of oxygen. Some infants with low blood sugar may experience apnea (pauses in breathing) or bradycardia (slow heart rate).

Diagnosing neonatal hypoglycemia involves a combination of clinical assessment and blood glucose level measurement. Healthcare providers will consider the baby's risk factors, including maternal diabetes, prematurity, and feeding problems, and conduct blood glucose tests to confirm the condition.

Treatment of neonatal hypoglycemia aims to raise and stabilize the baby's blood sugar levels. Encouraging breastfeeding or formula feeding at shorter intervals to provide a continuous source of glucose. In cases of severe hypoglycemia, Intravenous (IV) administration of glucose may be necessary to rapidly elevate blood sugar levels.

A glucose gel applied to the baby's gums may be recommended to increase blood sugar levels when breastfeeding is not effective. Healthcare providers closely monitor the baby's blood glucose levels to ensure they remain within the normal range.

While some risk factors for neonatal hypoglycemia cannot be controlled. Adequate prenatal care helps identify and manage maternal conditions, such as diabetes, which can affect a baby's blood sugar levels. Encouraging and supporting breastfeeding can help ensure that newborns receive the necessary nutrients and maintain stable blood sugar levels. Prompt initiation of feeding, either through breastfeeding or formula, can help prevent drops in blood sugar. Newborns at higher risk of hypoglycemia, such as those born prematurely, may require closer monitoring and blood sugar level checks.

Neonatal hypoglycemia is a condition that demands attention and prompt intervention. Recognizing its causes, symptoms, and the importance of early diagnosis and treatment is essential for ensuring the well-being of newborns. By providing appropriate care and support to both mothers and their infants, healthcare professionals and families can work together to reduce the risk of neonatal hypoglycemia and foster a healthy start to a new life.

Correspondence to: Giulia Polleri, Department of Pediatrics, University of Health Sciences Turkey, Ankara, Turkey, E-mail: polle@r3gil.com

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