

Does Maternal NPO Time for Elective Cesarean Section Under General Anesthesia Affect Maternal and Neonatal Blood Sugar?

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**Background :** Hypoglycemia in the newborn is a very serious complication, because it can result in a permanent brain damage. In our practice, every patient scheduled for elective casearean section have an order of nothing per oral (NPO) after midnight. So most of these patients are starving and have the prolonged NPO times before general anesthesia for caesarean section is conducted in the next morning. This study aims to investigate whether there is any correlation between the duration of the maternal NPO time and the level of maternal and neonatal blood sugar, together with any evidence of hypoglycemia in the mother or newborn baby. **Methods :** The authors studied a population of 70 pregnant women who underwent elective caesarean section under general anesthesia. The duration of the NPO time was recorded. The blood sample from the mother before starting non dextrose solution infusion and cord blood sample from the newborn baby were studied for the level of blood sugar. **Results :** The duration of the NPO time had an inversely and significantly correlated with the maternal blood sugar ( $R = -0.279$ ,  $P = 0.019$ ). No significant correlation between the maternal NPO time and the neonatal blood sugar was observed in this study ( $R = -0.207$ ,  $P = 0.086$ ) **Conclusions :** The authors conclude that the hypoglycemic events should be suspected in every mother who has long NPO time. Though from this study, there is no significant correlation between maternal NPO time and the level of blood sugar in the neonates, it is a devastation complication if only one neonate is born from a starving mother and has hypoglycemic event with neurological deficit.

**Key Words :** Hypoglycemia, NPO time, elective cesarean section, maternal, neonatal blood sugar