

Prevalence and factors associated with asymptomatic hypoglycaemia among preterm newborns at regional referral hospitals in Dar es Salaam.

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Abstract:

Background:

Preterm babies frequently have the metabolic imbalance known as hypoglycaemia. A growing body of research shows that newborn hypoglycaemia in Tanzania is related to the causes of early neonatal mortality. The precise prevalence and risk factors for asymptomatic neonatal hypoglycaemia in preterm neonates in Tanzania are unknown, though.

Objective:

To assess prevalence and factors associated with asymptomatic hypoglycaemia among preterm newborns in Dar es Salaam Tanzania. **Materials and Methods:** A hospital based cross-sectional study was carried out at Dar es Salaam Public Regional Referral Hospitals i.e. Amana, Mwananyamala and Temeke hospitals. Written informed consent was obtained from each mother prior to enrolment of the newborns into the study. Data was collected using a structured questionnaire to collect pertinent information on demographic and clinical characteristics on both the neonate and the mother. Data was analysed using SPSS version 23. Multivariate logistic regression was used to determine relationship between occurrence of hypoglycaemia and contributing factors. The p-value of less or equal to 0.05 was regarded as statistically significant.

Results:

The study enrolled 217 asymptomatic preterm newborns within 6-24 hours post-delivery from June to August 2022. Prevalence of hypoglycaemia was 45.2%. There was nearly-equal sex distribution n=105, 48.4% mmol/L. Delayed breast feeding within the first hour post-delivery was the only factor associated with hypoglycaemia value = 0.000 **Conclusions and recommendations:** Nearly half of all study participants were hypoglycaemic. Delayed breast feeding within the first hour of birth was associated with neonatal hypoglycaemia. Newborns might be hypoglycaemic without obvious signs and symptoms which may endanger their health and survival. Initiation of breastfeeding within one hour after delivery should be emphasized. **Keywords:** Neonates, Preterm, hypoglycaemia, Dar es Salaam, Tanzania.
