A Detailed Analysis of the Various Perinatal Factors Influencing Neonatal TSH: Results from a 6 Months Congenital Hypothyroidism Screening Program.

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Abstract
Background: The aims of this study are to analyse various perinatal factors influencing neonatal cord blood thyroid stimulating hormone (TSH) level and to find out incidence of congenital hypothyroidism in neonates. **Material and Methods:** A total of 800 newborns whose mother not having any thyroid medications during her pregnancy period were enrolled for the study. Cord blood samples of the neonates were collected for estimation of TSH level at the Laboratory Services of GMERS Medical College, Junagadh. TSH levels above 20mIU/L were considered as having congenital hypothyroidism. The data were compared with other similar international as well as national studies. **Result:** In present study, there was no significant difference in cord blood TSH level when compared for various mode of delivery of newborn, as well as according to birth weight and gender of newborn. There was a statistically significant higher mean cord blood TSH level in newborns whose mother had a history of pregnancy induced hypertension (PIH). One newborn was found to have congenital hypothyroidism. **Conclusions:** It was evident from the present study that newborns whose mother having history of PIH had significantly higher cord blood TSH level. Though incidence of congenital hypothyroidism was rare, routine congenital hypothyroidism screening program was advisable.

Keywords: Congenital hypothyroidism, TSH, PIH, Cord blood TSH.