

Influence of perinatal factors on thyroid stimulating hormone level in cord blood

Thesis

Submitted for partial fulfillment of master degree in Pediatrics

By

Heba Abdel Gwad Abdel Ghany

(M.B.B.Ch)

Faculty of medicine – Fayoum University

Pediatrics Department

Faculty of medicine - Fayoum University

Fayoum University

2014

Summary

Development and maturation of the brain and central nervous system and other target tissues have a critical dependence on thyroid hormones , beginning before birth and extending through the first 2–3 years of life . Congenital hypothyroidism (CH) represents one of the most common preventable causes of mental retardation. If early treatment is delayed, irreversible mental retardation, growth failure and a variety of neuropsychological deficits develop in affected infants. The first few weeks of life are a very sensitive period in terms of thyroid hormone deficiency, so diagnosis and treatment of CH are essential as early as possible. Neonatal screening programs for detection of CH during the neonatal period have been widespread in developed countries over the last three decades .

In most screening programs heel-prick blood samples are collected at 5–6 days of age, but as a number of babies are discharged early, cord blood samples are being used as well. .

Various maternal and perinatal factors are known to affect the CB TSH levels . There is a scarcity of data on the effects of various factors on CB TSH levels.

This study presents an analysis of various maternal and perinatal factors

on CB TSH level

The study included 150 neonates delivered at general and university hospitals from the period of May to October 2014. Neonates

were subjected detailed perinatal history taking from the mother laying stress on history of preeclampsia,diabetes mellitus, maternal age, order of baby and mode of delivery. Thorough neonatal examination laying stress of anthropometric measurements as head circumference ,weight and length. Assessment of Apgar score at 1 and 5 minutes. (Assessment of heart Rate, Respiratory rate, Muscle Tone, Reflex irritability, Color).Confirmation of neonate estimated gestational age using expanded New Ballard Score . Data were collected, tabulated and statistically analyzed.

Results reveals that IDMs , Apgar score at five minutes , prematurity and PROM has significant ffect on CB-TSH.

Finally, Some perinatal factors like IDMs, Apgar score at five minutes ,prematurity and PROM can affect level of CB-TSH .