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Correlation between Leptin and Thyroid Function Test in Neonates at the Nelson Mandela Academic Hospital in Mthatha, in the Eastern Cape Province of South Africa

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This study sought to explore any correlation between leptin and thyroid function test in neonates as available literature shows correlation of leptin with low birth weight, and female gender and congenital hypothyroidism in neonates. Use of leptin to treat hypoleptneamic states in children with congenital leptin deficiency is being developed. It was important to look into this correlation to reveal out the extent to which early leptin administration and testing might be useful in near future for treating diseases such as obesity. The participants' data were collected from their hospital files and the laboratory results. Data were presented, analyzed and discussed according to themes derived from the problem statement. The quantitative data were analyzed statistically whereas the qualitative data reporting took the form of narratives and thick description. It emerged from the study that, majority of the cases' insulin was below reference range. Some of the cases' values of leptin and TSH were higher than for the control. TSH values were all within the reference range but not the same with leptin, insulin and fT4. Strong association between leptin and fT4 observed in the cases than the controls. Leptin showed higher association with birth weight, length and BMI for the control participants. Finally, it emerged that, umbilical cord leptin decreases with age in first three days of life. This study recommends; coordinated efforts to established long term commitment plan to promote healthy nutritional life style at all social levels and more studies on the effects of leptin on metabolic hormones.

Biography

Growing up from a remote community in Africa, I witness a lot of health challenges, and developed early on in my childhood the dream of becoming a medical scientist. Occasionally, I assist at the community clinic where I educate patients on their disease process and the need to adhere to their medications. Currently, my MSc in Chemical Pathology certificate is pending.

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