

ABSTRACT

TITLE : A STUDY OF VISUAL EVOKED POTENTIALS , SERUM CALCIUM , FERRITIN AND LIPIDS IN HYPOTHYROID INDIVIDUALS

Author : **Dr . S . Aleema banu** , Co-Author : **Dr . R .Thenmozhi**

Department of Physiology ,Tirunelveli Medical College,Tirunelveli.

Background: Thyroid diseases are common worldwide. In India , its prevalence is about 42 million .Women have higher prevalence than men. Hypothyroidism , a multiorgan endocrine disorder which affects brain , peripheral nerves & muscular system. It occurs due to decrease in thyroid hormones synthesis and low levels of circulating thyroid hormones . Hypothyroidism increases with age. **Aim :** To study about the visual evoked potentials , body mass index , serum calcium, serum ferritin & lipid profile in hypothyroids and compared with the controls. **Materials & methods :** 100 subjects (50 cases & 50 controls) including both genders of age group 20-50 years ,were selected for the study . These subjects underwent a medical history assessment, general physical examination including anthropometry & thyroid gland examination in non communicable disease (NCD) outpatient department of Medicine in Tirunelveli Medical College & Hospital (TVMCH) . After getting informed & written consent from these subjects , hematological parameters (serum calcium, serum ferritin , lipid profile) & biochemical investigations like thyroid profile were performed in the central certified laboratory of TVMCH .Visual evoked potentials in these subjects were recorded at the neurology department using physiopac machine . Results were statistically analysed using SPSS package (version 11.0). **Results:** Our study showed that hypothyroidism increased with age and had female preponderance . Also revealed that there was prolongation of P 100 latency in hypothyroidism and statistically significant positive correlation of BMI, serum cholesterol, serum LDL , serum HDL with TSH. . Negative correlation existed between serum calcium and TSH . Strong association between serum ferritin and thyroid hormones was observed . Serum triglycerides remained within normal limits in hypothyroidism. **Conclusion:** In hypothyroidism ,there was prolongation of P100 latency, elevation of BMI and serum lipids Serum calcium and serum ferritin were inversely related to TSH.

Key words: Hypothyroidism ,Visual evoked potentials ,Thyroid stimulating hormone, Serum Calcium - Ferritin - Lipids , Body mass index.