NERVE CONDUCTION STUDY AND GONIOMETRY IN
HYPOTHYROID WOMEN
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Introduction and Aim: Hypothyroidism is the most common pathological hormone deficiency as per Indian Thyroid Society (ITS). About 42 million people in India suffer from diseases related to thyroid gland. Hypothyroidism affects one in every eight women and has profound effects on the health of the individual. Women are 5-8 times more susceptible to the disease than men. Hypothyroidism leads to infertility, loss of libido, hypertension, peripheral neuropathy affecting motor, sensory and mixed nerves producing chronic disability, derangements in metabolic functions, raised lipid profile, lethargy, increased weight gain, mental sluggishness, reduced nerve conduction velocity in adults. Hence my aim of the study was to find out the peripheral nerve conduction velocity, range and degree of movement of joints in the newly diagnosed hypothyroid women and comparing with the normal euthyroid women. Methods: 50 newly diagnosed hypothyroid women and 50 age matched normal euthyroid women were recruited from the medicine OPD, Coimbatore Medical College Hospital, Coimbatore. Height, weight, BMI, Thyroid hormone assay was done. Nerve conduction study and goniometry was done at Neurology Department, Coimbatore Medical College Hospital. Results: There was statistically significant difference observed between hypothyroid and euthyroid women with respect to nerve conduction study. Motor conduction velocity was significantly delayed (P < 0.05). There was also delay in F wave response and sensory nerve conduction. There was no statistical difference in goniometry between hypothyroid and euthyroid women. Conclusion: It is proved from this study that early hypothyroidism causes subclinical neuropathy and the sensory nerve fibers are the earliest to get affected. Hypothyroidism does not affect the degree and range of movement of the joints as proved by the goniometry.

Key words: Nerve conduction Study, Goniometry, Hypothyroidism.