**Original article**

**Hypothyroidism causing dyslipidemia in both subclinical & overt hypothyroidism**

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**ABSTRACT**

**Introduction** Thyroid hormones play an essential role in regulating energy balance, metabolism of glucose, and lipids. Clinical Hypothyroidism leads to altered lipid profile according to previous studies. We have examined this relationship in subclinical hypothyroidism.

**Material & methods** Estimation of lipid profile (Cholesterol, Triglyceride and HDL) was done in overt & subclinical hypothyroidism and compared with the healthy control group.

**Observation & Results** In the present study the mean Total Cholesterol values were 131.0±22.38mg/dl, 172.06±27.51mg/dl, 204.46±26.43mg/dl, Serum Triglyceride values were 113.83± 20.45 mg/dl, 169.67±31.24 mg/dl, 178.67±28.86 mg/dl, LDL Cholesterol values were 66.06±23.29mg/dl, 99.10±27.43mg/dl, 134.56±25.77mg/dl, Serum HDL Cholesterol values were 42.36±4.17mg/dl, 38.56±4.14mg/dl, 34.13±2.58mg/dl respectively in the healthy control, subclinical hypothyroidism and overt hypothyroidism.

**Conclusion**

In Overt hypothyroid group, TSH showed statistically significant positive correlation with total Cholesterol (r =0.434, p<0.0164), Triglyceride (r =0.339, p<0.05), LDL Cholesterol (r =0.409, p<0.05). TSH had negative correlation with HDL Cholesterol (r =-0.394, p<0.05).

In Subclinical hypothyroid group, TSH showed statistically significant correlation with total Cholesterol (r =0.387, p<0.05), LDL-C (r =0.404, p<0.05). The correlation between TSH was statistically not significant for Triglyceride, VLDL, HDL-C. The study has demonstrated and has further proved that hypothyroidism also causes dyslipidemia both in overt and subclinical hypothyroidism.

**Keywords**: Hypothyroidism, Lipid Profile, Dyslipidemia