

A Clinical Study of Dyslipidemia Associated with Subclinical Hypothyroidism

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Abstract

Background: Thyroid dysfunctions invariably result in deranged lipid metabolism. It also significantly increases the number of other cardiovascular risk factors. The effects of subclinical hypothyroidism on lipid metabolism have not been determined. We in the current study tried to determine the etiological factors and lipid disorders in cases of subclinical hypothyroidism. **Methods:** This was a hospital-based cross-sectional study conducted in the OPD of General Medicine Department, Prathima Institute of Medical Sciences, Naganoor, Karimnagar. All adult patients with the biochemical criteria for subclinical hypothyroidism were included in the study. None of the patients were part of a routine screening program. Diagnosed cases of subclinical hypothyroidism patients who fulfilled the inclusion and exclusion criteria were included in the study. Inclusion criteria. All diagnosed cases of subclinical hypothyroidism (normal T₃, T₄ and fT₄ with TSH more than 4.5µIU/mL). **Results:** Most common cause of subclinical hypothyroidism in our study was autoimmune thyroiditis, as suggested by the presence of thyroid peroxidase antibody, seen in N=25 cases (62.5%). N=32 cases (80%) were having TSH in the range of 10 to 20. N=5 patients (12.5%) had TSH between 5 and 10. N=3 cases (7.5%) were having TSH above 20. 25 cases (62.5%) had positive thyroid peroxidase antibody while 15 (37.5%) were negative for TPO Ab. There were significant elevations of Total cholesterol and LDL- cholesterol in cases of subclinical hypothyroidism as compared to controls, the levels of triglycerides were also found to be elevated however the values were not significant. **Conclusion:** Lipid abnormalities are seen in subclinical hypothyroidism patients in the form of significant elevation of total cholesterol and LDL while changes in HDL and triglycerides. These patients are expected to benefit from thyroxine which may also help in reverting the lipid abnormalities.