

ABSTRACT

Background:

Diabetes mellitus (DM), a common endocrine metabolic disorder, is an important cause of morbidity and mortality worldwide. Thyroid dysfunction has been frequently encountered in diabetic patients with hypothyroidism being the most common type of dysfunction. Diabetics have a higher prevalence of thyroid disorders when compared with general population. Alteration in thyroid function complicates the management of diabetes mellitus and its complications.

Methods:

Total of 220 subjects were studied, divided into two groups - cases group which consists of 170 known Type 2 diabetic patients and controls group which consists of 50 normal healthy individuals. Venous blood sample was taken and analyzed for blood sugar, serum FREE T3 (Triiodothyronine), serum FREE T4 (Thyroxine), serum TSH (Thyroid stimulating hormone) and lipid profile in both cases and controls.

Results:

Prevalence rate of thyroid dysfunction was 33.5%. In the group with thyroid dysfunction there was an excess of females in comparison with the group without thyroid dysfunction ($P < 0.05$). In addition, patients with thyroid dysfunction had higher values of LDL-cholesterol levels ($P = 0.001$), Triglycerides levels ($p=0.003$) and lower values of HDL-cholesterol levels ($P = 0.002$) in comparison with patients without thyroid dysfunction.

Conclusion:

The present study suggests that the abnormal thyroid hormone levels seen in type 2 diabetics are due to alteration in Hypothalamo-pituitary-thyroid axis, which in turn produces significant metabolic disturbances. Hence, routine screening for thyroid dysfunction should be carried out in diabetics, which helps in its early diagnosis and treatment there by improves their quality of life and reduces the morbidity rate.

KEY WORDS: Diabetes Mellitus, Hypothyroidism, Hyperthyroidism