

ABSTRACT

Background

Non-alcoholic fatty liver disease (NAFLD) is the most common cause of abnormal liver function tests worldwide. It represents a broad clinical spectrum ranging from simple fatty liver to Non-alcoholic Steatohepatitis (NASH), which may progress to liver fibrosis, cirrhosis and Hepatocellular carcinoma. The growing prevalence of NAFLD is attributed to global increases in the prevalence of metabolic risk factors like T₂DM, impaired glucose tolerance, dyslipidemia and central obesity. Thyroid hormone is significantly involved in energy homeostasis, lipid and carbohydrate metabolism, regulation of body weight and adipogenesis. Therefore it is anticipated that thyroid hormone may play a role in the pathogenesis of NAFLD.

Aims and objectives

To study the relationship between Hypothyroidism and Non-alcoholic fatty liver disease.

Materials and methods

50 patients with Hypothyroidism were chosen from Endocrinology department in Institute of Internal Medicine, MMC & RGGGH based on the inclusion and exclusion criteria. CBC, RFT, LFT, fasting lipid profile, coagulation

profile, viral markers, CRP, TFT, USG abdomen were done for all the 50 patients. Those who showed fatty liver were subjected to Fibroscan.

Observation & results

In our study, it was observed that 10% of the patients showed fatty liver. Fibroscan was done for them which showed no significant fibrosis. Around 87% of patients with fatty liver had TSH more than 60. P value for the relationship was less than 0.001 which is significant. This study also showed statistically significant relationship between haemoglobin and diastolic BP with fatty liver. P value for haemoglobin was 0.011 and diastolic BP was 0.005.

Conclusion

Hypothyroidism is an independent risk factor for NAFLD. So NAFLD screening is mandatory for all the patients with Hypothyroidism. Early treatment of Hypothyroidism with thyroxine may reduce the risk of NAFLD and its potential complications. An extensive prospective study is needed to find the effect of thyroid hormone replacement therapy in patients with Hypothyroidism for preventing NAFLD.