ABSTRACT

A STUDY ON LIPID PROFILE AS AN INDICATOR OF SEVERITY OF CIRRHOSIS IN LIVER

INTRODUCTION

Cirrhosis derives from the Greek word meaning “tawny”. Cirrhosis is fourth leading cause of death among Asian males. Lipids are one of the necessary components of cell wall and also which control cellular functions and homeostasis. Liver plays an essential role in lipid metabolism, as it is the major site of converting excess carbohydrate into triglyceride and fatty acids several stages of lipoprotein synthesis and transportation. The liver synthesizes large quantities of cholesterol and phospholipids. Majority of endogenous cholesterol is synthesized in the liver and its excretion by lipoprotein remnants. Synthesis and metabolism of cholesterol is impaired in chronic liver disease. This eventually results in decrease in plasma levels. High density lipoprotein (HDL) cholesterol and its major Apo lipoproteins have been shown to be reduced in cirrhosis, because of the severe metabolic derangement as also the serum levels of low-density lipoprotein (LDL) cholesterol. Hence this study is conducted to determine lipid profile in patients with cirrhosis and to assess if it is related to severity of chronic liver disease.

OBJECTIVES OF THE STUDY:

To assess the lipid profile abnormalities in patients with cirrhosis of liver

To correlate that with the severity of cirrhosis
MATERIALS AND METHODS:

It is a cross sectional study conducted in Coimbatore medical college hospital for a period of one year between July 2017 and June 2018 among patients with cirrhosis, those who getting admitted in medical wards. The sample size is 120 patient, they are diagnosed clinical methods and biochemical tests. Patients were categorized according to Child Pugh score. Fasting lipid profile namely total serum cholesterol, triglycerides and HDL were measured by direct method and serum LDL, VLDL has been calculated by using Friedewald formula.

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\text{LDL cholesterol} = \text{Total cholesterol} - \{\text{HDL cholesterol}-\text{TGL}/5\}
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\text{VLDL} = \text{Sr. Triglycerides} / 5
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Patients age more than 18 years with cirrhosis were included in the study. We excluded the patients with diabetes mellitus, hypertension, Cerebrovascular disease, Patients on lipid lowering drugs, Pancreatitis, Chronic kidney disease, Hypo/hyperthyroidism.

RESULTS:

Study includes 120 patients in which 63% were males(76) and 37% were females(44). The mean age of a patrcipant is 47.3 ±9.1 years. The most common cause includes alcoholic cirrhosis (75%). In this study among 120 patients , 44 patients were under the child pugh score category A (36.7%), 50 comes under category B (41.7%), 26 comes under category C(21.7%). In our study all the parameters of lipid profile namely, serum total cholesterol, serum HDL, triglycerides (measured by direct method), serum
VLDL, LDL (calculated by formula) have been found to be reduced with as the severity of cirrhosis increases.

**CONCLUSION:**

Serum total cholesterol, TGL, LDL, VLDL, HDL were decreased in patients with cirrhosis and found to be negatively correlated with the severity of disease.