

A Study on Association of High Serum Uric Acid in Non-Alcoholic Fatty Liver Disease.

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ABSTRACT

INTRODUCTION: Non-alcoholic fatty liver disease (NAFLD) is a pathological change of liver tissue, which is similar to alcoholic liver disease (steatosis, fibrosis, cirrhosis, HCC) but has no excess alcohol abuse history.

Uric acid is the end product of purine metabolism. Most uric acid is excreted with urine through kidney, and the rest enters the intestinal tract through the bile duct and is decomposed by intestinal bacteria. In the past decades, with the increasing prevalence of NAFLD, many clinical studies were carried out to investigate its related biomarkers and risk factors.

Hyperuricemia may lead to endothelial dysfunction, insulin resistance, oxidative stress, and adipose tissue inflammation which may result in the development of fatty liver and its progression to NASH and then cirrhosis. Recently, studies found that increasing SUA is also associated with increasing the severity of NAFLD on ultrasonography.

MATERIALS AND METHODS:

- **STUDY DESIGN:** A prospective cohort study.
- **STUDY PERIOD:** 18 months, from January 2021 – June 2022.
- **PLACE OF STUDY:** Department of General Medicine, Mamata General Hospital, Khammam.
- **SAMPLE SIZE:** Minimum 100 non-alcoholic patients admitted to Mamata general hospital.

RESULTS:

Out of 100 patients, the mean age in the study group was 46.81 years. Men had higher mean age compared to women. No positive correlation was found between smoking and hyperuricemia. Subjects with a higher level of BMI had hyperuricemia. In our study, we observed that non-alcoholic patients with ultrasonography findings of cirrhosis had increased uric acid levels.

CONCLUSION:

This study concluded that hyperuricemia is associated with an increased number of cases both with cirrhosis and fatty liver. This clearly indicates that hyperuricemia in fatty liver patients, who are non-alcoholic have a considerable risk for future progression to cirrhosis of the liver.

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