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ABSTRACT

Background and Objective: There is a rise in incidence of non-alcoholic fatty liver disease (NAFLD) in overweight individuals, type 2 diabetes mellitus and metabolic syndrome. Iron an essential nutrient has been widely implicated in the pathogenesis of NAFLD. In this regard serum hepcidin has emerged as a new marker of fibrosis and cirrhosis in the liver. This study was designed to look at the association between hepcidin and iron and their relationship with NAFLD.

Methods: This cross-sectional hospital based study was conducted in 50 patients. Plasma was evaluated for hepicidin by ELISA. and iron by semi-autoanalyser. Descriptive statistics of different parameters according to age, gender and biochemical parameters were tabulated. Hepcidin and iron were correlated using Spearman's correlation. $p<0.05$ was considered as significant

Results: There was a positive correlation between hepcidin and iron in NAFLD patients **Conclusion:** In the present study it was observed that the risk of NAFLD increased with advancing age. There was an increased risk to develop NAFLD even at a lower BMI. In particular, hepcidin positively correlated with iron suggesting an impairment in the ability to inhibit iron. This topic requires further study to offer more insights into the complexities related to the altered lipid metabolism its association with iron, which results in iron loading seen in NAFLD patients. Iron homeostasis has been widely implicated in the pathogenesis of NAFLD and represents a potential target for treatment. Hence this information may lead to new therapeutic strategies in NAFLD.

Keywords: Non-alcoholic fatty liver disease(NAFLD), hepcidin, Iron