



Hepatology Highlights

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Hepatic expression of ghrelin and adiponectin and their receptors in patients with non-alcoholic fatty liver disease by Misael Uribe et al.

In the past years, few disorders have seen the booming growth fatty liver has observed. Largely unrecognized till 20 year ago, fatty liver catch the attention of both basic and clinical researchers looking mainly for its pathophysiology, clinical outcome and need of beneficial treatments. In spite of the huge amount of translational research, the puzzle still remains to be assembled. In this paper Uribe and colleagues adds another piece to the puzzle such as the potential role of ghrelin and adiponectin in the development of fatty liver. Ghrelin is a hormone produced mainly by P/D1 cells lining the fundus of the human stomach that stimulate appetite while Adiponectin, a 244-amino-acid-long polypeptide, is a hormone that modulates a number of metabolic processes, including glucose regulation and fatty acid catabolism. Adiponectin binds to 2 receptors, ADIPOR1 and ADIPOR2 which mediate increased fatty acid oxidation and glucose uptake by different organs. Both ghrelin and

adiponectin are involved in the hepatic lipid metabolisms and may therefore be involved in the pathogenesis of fatty liver. Based on this rationale, hepatic tissue obtained from subject with Non Alcoholic Fatty Liver Disease (NAFLD) or Non Alcoholic SteatoHepatitis (NASH) was screened for gene expression of these players. While no difference was observed in the expression of ghrelin, adiponectin mRNA was slightly but significantly higher in patients with NASH but not in those with NAFLD. Surprisingly, the expression of the 2 receptors ADIPOR1 and ADIPOR2 was comparable. Although the data have been collected in a limited number of cases and, in particular, the number of controls is extremely low, this study suggests that fatty accumulation involves metabolic pathways where the regulatory role of adiponectin may be possibly involved. Unfortunately this study does report neither the serum level of adiponectin nor that another important players such several proinflammatory cytokines, including

TNF- α . Another piece of the complicated puzzle has been put on the table but its exact location and importance remains to be established.

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