

## Hepatology Highlights

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*Obesity-related leptin receptor polymorphisms and gallstones disease, by Nahum Mendez-Sánchez et al*

The relationship between alteration in cholesterol absorption and biliary excretion, obesity and gallstone formation are clinically known since more than 50 years. More recently the presence of gallstones has been associated with the so called “metabolic syndrome” reiterating the role of obesity in the development of this common disorder. Leptin is a key player in obesity since regulates energy consumption. Leptin acts *via* the leptin receptor (LEPR), and a reduced interaction and/or a reduced functional expression of LEPR result in hyperleptinemia, which has been associated with obesity. Since leptin regulates the cholesterol biliary excretion, it would be of interests to understand if alterations of LEPR may be associated with a different the risk of cholesterol gallstones. This study aims to answer this question by analyzing 97 Mexican subjects, almost half of them with gallstones. In addition to the customary indexes for metabolic syndrome, including serum leptin levels, subjects were screened for 2 known polymorphisms of the leptin receptor. Not surprisingly, gallstone patients were more overweight, showed a greater insulin resistance and females were predominant. Unfortunately no correlation was observed between the presence of mutations in the LERP and gallstone. More important was the finding of a comparable level of serum leptin in the two groups suggesting the lack of correlation between the two variables in the population screened. This finding is not in line with

pervious series where leptin was shown to be a good index of gallstones and biliary sludge. It is possible that the difference may be related to different racial background, something interesting to be explored. The key, clinically relevant question if leptin serum level of genetic alterations in LEPR may be predictive for gallstone awaits further investigation before being answered.

*Metabolic syndrome, Non-alcoholic Steatohepatitis (NASH) and Hepatocyte Growth Factor (HGF), by Yasemin H Balaban et al*

Non-alcoholic SteatoHepatitis (NASH) but much more Non-alcoholic Fatty Liver Disease (NAFLD) are booming in all the Liver Units and in all the offices of general practitioner worldwide. Reasons are the boom in obesity and the easy diagnosis by ultrasound. In a representative series it has been recently reported that obesity is the greater risk factor of NAFLD and more that 60% of obese subjects do have fatty liver in the absence of alcohol consumption. In this study the potential role of Hepatocyte Growth Factor (HGF) was investigated in a series of 26 Turkish patients with biopsy proven NASH and compared with 13 healthy controls. HGF serum levels were comparable in the two groups indicating that this antiapoptotic and anti-inflammatory cytokine is not apparently involved in fatty accumulation and related inflammatory response. Although negative this study indicates that the costly determination of HGF should not be included in the diagnostic panel of NASH or NAFLD.

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