Gene variant may increase risk of liver disease in obese youth

16 November 2015

Researchers have found that a genetic variant is linked with an increased risk of fatty liver disease in obese youth; however, children with the variant tend to have lower total and LDL cholesterol levels.

As indicated by the condition's name, fat accumulates in the liver cells of patients with fatty liver disease. The variant analyzed in this study lies within the gene that codes for the transmembrane 6 superfamily member 2 (TM6SF2) protein, which helps regulate the liver's metabolism of fat.

The findings may help investigators develop new ways to prevent or treat liver damage in patients with fatty liver disease and to ameliorate heart problems in obese children and adolescents. "The effect of the studied TM6SF2 gene variant on human metabolism is quite fascinating as it predisposes obese kids to accumulate hepatic fat, but at the same time it seems to protect them from cardiovascular complications," said Dr. Nicola Santoro, senior author of the *Hepatology* study. "I think the future of this protein might be in the prevention and therapy of cardiovascular diseases."

More information: Martina Goffredo et al. Role of the rs58542926 in the pathogenesis of non-alcoholic pediatric fatty liver disease (NAFLD): A multiethnic study , *Hepatology* (2015). DOI: 10.1002/hep.28283

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