

Spirulina Liquid Extract Protects against Fibrosis Related to Non-Alcoholic Steatohepatitis and Increases Ursodeoxycholic Acid

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R�sum� en anglais	<p>Non-alcoholic steatohepatitis (NASH) is characterized by an excess of lipids and oxidative stress in the liver. Spirulina was reported to possess hypolipemic and antioxidative effects and might counteract NASH development. C57Bl/6J mice were fed a western diet (WD) during 25 weeks with or without spirulina liquid extract (SLE) at 2 different doses (WDS1 and WDS2 groups) in drinking water. Liver histology, inflammation, and oxidative stress were assessed as well as glucose tolerance status, lipid metabolism, and gallbladder bile acid profile. WDS2 gained significantly less weight than WD. Liver weight-to-body weight ratio and plasma alanine aminotransferase were significantly lower in WDS2 mice. A reduced liver fibrosis and NF�Bp65 protein expression were measured in the supplemented group as a lower accumulation of superoxide anion, nitric oxide, and thiobarbituric reactive substances. WDS2 mice showed also a preserved glucose tolerance, a strong decrease of plasma cholesterol, and a significant increase of gallbladder ursodeoxycholic acid and �-muricholic acid. Our findings demonstrate a protective effect of SLE against WD induced NASH that is related to less inflammation and oxidative stress, a preserved glucose tolerance, and less hepatotoxic bile acid profile.</p>
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Liens

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