

# Dietary Rosa mosqueta (Rosa rubiginosa) oil prevents high diet-induced hepatic steatosis in mice

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## Resumen

The effects of dietary Rosa mosqueta (RM, Rosa rubiginosa) oil, rich in alpha-linolenic acid, in the prevention of liver steatosis were studied in mice fed a high fat diet (HFD). C57BL/6j mice were fed either a control diet or HFD with or without RM oil for 12 weeks. The results indicate that RM oil supplementation decreases fat infiltration of the liver from 43.8% to 6.2%, improving the hepatic oxidative state, insulin levels, HOMA index, and both body weight and adipose tissue weight of HFD plus RM treated animals compared to HFD without supplementation. In addition, the DHA concentration in the liver was significantly increased in HFD fed mice with RM oil compared to HFD (3 vs. 1.6 g per 100 g FAME). The n-6/n-3 ratio was not significantly modified by treatment with RM. Our findings suggest that RM oil supplementation prevents the development of hepatic steatosis and the obese phenotype observed in HFD fed mice.

## Palabras clave

**KeyWords Plus:** Alpha-Linolenic Acid; Fatty Liver-Disease; Coronary-Heart-Disease; Insulin-Resistance; Oxidative Stress; N-3 Lcpufa; Ppar-Alpha; Docosahexaenoic Acid; Salvia-Hispanica; N-6/N-3 Ratio

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