Diabete tipo 1. Berberina protege as ilhotas de células beta do pâncreas e melhora o perfil lipídico

**Berberine, an isoquinoline alkaloid in herbal plants, protects pancreatic islets and serum lipids in nonobese diabetic mice.**


**Source**

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**Abstract**

Type 1 diabetes (T1D) damages pancreatic islets, gradually causing chronic complications. This study investigated the berberine effect on T1D in vivo. Nonobese diabetic (NOD) mice were grouped and administered 50, 150, and 500 mg of berberine/kg of body weight over 14 weeks using consecutive tube feeding. Changes in pancreatic islets, serum insulin, berberine, and lipid levels were determined. The results showed that berberine supplementation significantly (P < 0.05) increased the number of decreased islets and raised serum berberine levels in dose-dependent manners in experimental mice. Berberine supplementation also increased insulin levels, but decreased the ratio of low-density lipoprotein cholesterol (LDL-C)/total cholesterol (TC). Furthermore, serum berberine levels showed a significantly positive correlation with high-density lipoprotein cholesterol (HDL-C) levels and the HDL-C/TC ratio, but a negative correlation with the LDL-C/HDL-C ratio. This study suggests that berberine administration in vivo protects pancreatic islets and serum lipids in NOD mice.

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