

糖尿康胶囊通过 AMPK/CREB 信号通路治疗 2 型糖尿病作用研究*

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摘要:目的 探讨糖尿康胶囊对 2 型糖尿病大鼠的治疗作用机制。方法 以腹腔注射小剂量 STZ 并辅以高脂饮食喂养建立 2 型糖尿病大鼠模型, 观察不同剂量的糖尿康胶囊对糖尿病大鼠空腹血糖(FBG)、血清胰岛素(FINS)、甘油三酯(TG)、血清总胆固醇(TC)和游离脂肪酸(FFA)水平的影响。采用相应试剂盒测定 LDH 和 Caspase3 水平。Western blotting 检测蛋白磷酸化水平。结果 模型组糖尿病大鼠的 FBG、TG、TC 和 FFA 较对照组明显升高, 糖尿康胶囊治疗 4 周后, 各项指标均有所降低, 与模型组相比有显著性差异。糖尿康胶囊治疗可以增加糖尿病大鼠血清胰岛素水平, 且显著降低糖尿病大鼠体内 LDH 和 Caspase3 水平, 减少胰岛损伤。Western blotting 结果发现其可以促进 AMPK 和 CREB 蛋白磷酸化。结论 糖尿康胶囊能改善 2 型糖尿病的胰岛素抵抗状态, 减轻胰岛损伤, 其作用机制可能通过激活 AMPK/CREB 信号通路。

关键词: 糖尿康胶囊; 2 型糖尿病; 胰岛素抵抗; Wistar 大鼠

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Study on the Effect of Tangniaokang Capsule on Type 2 Diabetes Mellitus via AMPK / CREB Signaling Pathway

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Abstract Objective: To investigate the mechanism of Tangniaokang capsule in treating type 2 diabetic rats. **Method:** Rat models of type 2 diabetes were established by small dose of intraperitoneal injection of STZ combined with high fat diet, the effect of different doses of Tangniaokang capsule on the rats' fasting blood glucose (FBG), serum insulin (FINS), triglyceride (TG), serum total cholesterol (TC) and free fatty acid (FFA) levels were observed. The levels of LDH and Caspase3 were measured with the corresponding kits. Western blotting was used to detect the level of phosphorylation of protein. **Result:** FBG, TG, TC and FFA of diabetic rats in model group were significantly higher than those in the control group. After 4 weeks of treatment by Tangniaokang capsule, all indicators were decreased, compared with the

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