Baicalin Normalizes Blood Glucose Level in Streptozotocin -induced Diabetic Rats

Wenzong LU*, Xiangyan MENG, Guangfeng JIA, Chen ZHAO, Liang ZHANG, Yumiao REN, Haixian PAN & Yuan NI

Department of Biomedical Engineering, Xi'an Technological University, Xi'an, Shaanxi Province, 710032, People's Republic of China.

SUMMARY. This study aimed to determine the effect of baicalin on insulin resistance, glucose absorption, and blood lipids in type 2 diabetic rat model. Diabetic rats were treated with baicalin (40, 80 mg/kg) for 40 days. The results showed that diabetic rats treated with baicalin resulted in a significant decrease in the concentration of plasma triglycerides and high-density lipoprotein cholesterol, improved the body weight. Furthermore, baicalin markedly decreased blood glucose level in the diabetic rats. The levels of plasma insulin and resistin exhibited significantly lower in the diabetic rats treated with baicalin than those of the model group. These findings suggest that baicalin can improve adipose metabolic disturbance in the experimental type 2 diabetic rats, can effectively ameliorate insulin resistance and plasma glucose transport by decreasing the levels of plasma resistin.

KEY WORDS: Baicalin, Glucose, Insulin, Resistin.

* Author to whom correspondence should be addressed. E-mail: wenzonglu@126.com