



## Protective Effects of Rutin from Buckwheat Flowers and Leaves on Diabetic Cardiomyopathy

Bo-Nan ZHANG <sup>1</sup>, Shu-Ying HAN <sup>1\*</sup>, Zhi-Lu WANG <sup>1</sup>, Jing-Yi ZHANG <sup>2</sup> & Jin-Xiu CHU <sup>1</sup>

<sup>1</sup> *Department of Pharmacology, Hebei United University, Tangshan 063000, P.R. China*

<sup>2</sup> *Department of Cardiology, Tangshan Gongren Hospital, Tangshan 063000, P.R. China*

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**SUMMARY.** Protective effects of rutin from Buckwheat flowers and leaves (RBFL) were performed on a rat model of diabetic cardiomyopathy and the model was established by eating a high-fat diet together with injection of streptozotocin (30 mg/kg) intraperitoneally. Heart weight/body weight (HWI), blood glucose level, plasma level of endothelin-1 and adrenomedullin were measured and myocardial tissue morphology and ultrastructure were observed. Immunohistochemical technique was used to assay the endothelin-1 level of cardiomyocyte plasma. RBFL (90 mg/kg/d and 180 mg/kg/d) can decrease the HWI, blood glucose, endothelin-1 level and increase adrenomedullin level significantly in a dose-dependent manner. The alignment and morphous of cardiocyte and cardiac muscle fibers were concinnous and regular obviously compared with the model group when administrated RBFL. These findings suggest that RBFL has the protective effect on diabetic cardiac muscle and the mechanism maybe related to influence the level of endothelin-1 and adrenomedullin.

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**KEY WORDS:** Adrenomedullin, Buckwheat flowers and leaves, Diabetic cardiomyopathy, Endothelin-1, *Fagopyrum esculentum*, Rutin.

\* Author to whom correspondence should be addressed. *E-mail:* hsy1959@126.com