

Polygonum Cuspidatum Ameliorates Cardiac Hypertrophy and Apoptosis in The Heart with Pressure Overload

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Background: *Polygonum cuspidatum* (Polygonaceae), has been widely used in Chinese and Japanese folk medicine for the treatment of atherosclerosis, hypertension, cough and gonorrhoea. Aim: In the present study, we investigated the inhibitory effect of *Polygonum cuspidatum* extracts (PCE) on experimental cardiac apoptosis and hypertrophy, which is regarded as a risk factor of chronic heart failure and other heart diseases. Method: After permanent ligation of the abdominal aorta constriction, surviving rats were divided into four groups and treated with 40mg/kg/day PCE, 60mg/kg/day, sham or vehicles administered by oral gavage once daily for four weeks. Results: Treatment with PCE extract (40mg/kg) significantly decreased blood pressure, cardiac hypertrophy and apoptosis in HE stain and TUNEL assay. Echocardiograms results indicated that it significantly improved LV systolic and diastolic function. Conclusion: Taken together, it indicates that PCE is potent cardioprotective agents in pressure-overload induce cardiac hypertrophy and apoptosis rat heart.