

Andrographis Paniculata Extracts Reduced Cardiac Pathological Hypertrophy and Cell Apoptosis in Hearts of High-Fat Diet Induced Obesity Mice.

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Our aim is to identify whether *Andrographis paniculata* extracts could protect myocardial damage in high-fat diet induced obesity mice. Previous results pointed out that the main bioactive ingredient of *Andrographis paniculata* extract, andrographolide has anti-inflammatory and anti-apoptotic effects. Our research animals were divided into three group of normal, obesity (induced by high fat diet), obesity plus *Andrographis paniculata* extracts gavage (2 g / kg / day, feeding one week). Same experimental techniques were applied to observe whether *Andrographis paniculata* extracts could protect high-fat diet-induced obesity heart damage. We found myocardial inflammation signaling pathway were increased in the second part of the obese mice, and leads to cardiac hypertrophy, apoptosis. But given the short-term feeding *Andrographis paniculata* extracts also showed significant inhibition effect. Therefore, our study strongly suggest that *Andrographis paniculata* extracts supplement can be used for prevention and treatment of cardiovascular disease in obese patients.

Key words: cardiomyopathy, obesity, *Andrographis paniculata*, Andrographolide