

STELLARIA MEDIA TEA MAY IMPROVE CARDIAC DYSFUNCTION IN DIABETIC RATS WITHOUT AFFECTING THE GLUCOSE HOMEOSTASIS

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Although in folk medicine common chickweed (*Stellaria media*) tea has traditionally been applied for treating diabetes, evidence is still missing. We aimed to assess the effect of *Stellaria media* tea on glucose homeostasis and cardiac function in a diabetic rat model.

Diabetes was induced by fructose-enriched diet and a single injection of low dose streptozotocin. Half of the animals received hot water extract of *Stellaria media* tea (100 mg/kg) by oral gavage. At the end of the 20-week experimental period, blood samples were collected and isolated working heart perfusions were conducted.

Increased fasting serum glucose level, diminished glucose tolerance and decreased cardiac output were in diabetic rats. *Stellaria media* tea did not affect fasting hyperglycemia or glucose intolerance; nevertheless, it attenuated diabetes-induced deterioration of cardiac performance. In association, cardiac STAT3 phosphorylation induced by diabetes was prevented by *Stellaria media* extract.

We demonstrated for the first time that *Stellaria media* tea may improve diabetic cardiac dysfunction without affecting glucose homeostasis. STAT3 signaling may be implicated in the protection of *Stellaria media* tea against diabetic cardiomyopathy.

Keywords: cardiovascular prevention, medicinal herb, diabetic co-morbidity, cardioprotection

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