

## Effects of flavonoid rich beverage on lipid profile and blood pressure in type 2 diabetes patients

**Sara Moazzen**

Ahvaz Joundishapour University of Medical Science, Iran

**Background:** Beneficial effects of flavonoids on cardiovascular complications have been subject of considerable interest. This study, therefore, was carried out to investigate effects of freeze-dried strawberry (FDS) beverage in comparison with strawberry flavored drink on lipid profile, glycemic control and blood pressure after six weeks supplementation in type II diabetic (T2D) patients.

**Methods:** In a randomized double blind control trial, thirty six subjects with T2D (23 females; mean age:  $51.57 \pm 10$  years [means  $\pm$  SE]) were randomly divided into two groups to consume either 2 cups of freeze-dried strawberry beverage (50g equivalent to 2 servings fresh strawberries) or iso-caloric drink with strawberry flavor daily for 6 weeks. Anthropometric measurements, blood pressure, fasting blood glucose and lipid profile were measured at baseline and 6 weeks post intervention.

**Results:** There was a significant reduction in total cholesterol levels and total cholesterol to HDL-C ratio in intervention group (-%13.8;  $p < 0.05$  and -%7.1;  $p < 0.01$ , respectively). Systolic and diastolic blood pressure were also significantly reduced post intervention with FDS drink (-%15.9 and -%4.6;  $p < 0.05$ , respectively). Serum glucose, triglycerides, HDL-C concentrations and anthropometric indices showed no significant differences between the groups.

**Conclusions:** Short-term FDS supplementation improved selected cardiovascular risk factors in subjects with T2D. Long-term effects of FDS supplementation on other metabolic biomarkers need to be investigated in future trials.

[sm.yaghmur@gmail.com](mailto:sm.yaghmur@gmail.com)