

002. Effect of Royal Jelly Intake on Serum Glucose, Apolipoprotein A-I (ApoA-I), Apolipoprotein B (ApoB) and ApoB/ApoA-I Ratios in Patients with Type 2 Diabetes: A Randomized, Double-Blind Clinical Trial Study.

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Purpose

Type 2 diabetes is the most common metabolic disorder worldwide. Evidence supports a role for royal jelly (RJ) in reduction of serum glucose and lipids in animals and healthy subjects. The purpose of this study was to determine the effect of RJ intake on serum glucose, apolipoprotein A-I (ApoA-I), apolipoprotein B (ApoB) and ApoB/ApoA-I ratios in patients with type 2 diabetes.

Methods

Fifty patients with type 2 diabetes participated in a double-blind, placebo-controlled study. The participants were randomly divided into RJ and placebo groups and were given doses of 1000 mg royal jelly or placebo 3 times a day for 8 weeks, respectively. Weight, height, fasting blood glucose, ApoA-I and ApoB were measured at baseline and endpoint.

Results

There were no significant differences in baseline characteristics and dietary intakes between groups. The mean difference in glucose concentrations decreased in the RJ group (-9.4 mg/dL vs. 4 mg/dL; $p=0.011$). The mean difference in ApoA-I concentrations increased in the RJ group (34.4 mg/dL vs. -1.08 mg/dL; $p=0.013$). There was a significant decrease in mean difference of ApoB/ApoA-I in the RJ group compared with the placebo group (0.008 vs. 0.13; $p<0.044$), respectively.

Conclusions

These data suggest that RJ intake may have desirable effects on serum glucose, Apo-A-I concentrations and ApoB/ApoA-I ratios in people with type 2 diabetes.