

EFFECTS OF LOCAL TURKISH HONEY ON SERUM
INSULIN, GLUCOSE, HBA1C AND C-PEPTIDE
LEVELS OF HEALTHY VOLUNTEERS

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Glycemic Index (GI) is a measure of the effect that foods have on blood glucose. GI of a food has a potential importance in the treatment and prevention of chronic metabolic diseases associated with central obesity and insulin resistance. We aimed to determine the GI of 5 honey varieties from different geographical origin in Turkey and compare certain biochemical parameters before and after those honeys intake. In 20 healthy volunteer students from ERÜ, capillary finger-prick blood samples were collected after an overnight fast and after intake of each meal. While the GI of each honey was calculated, fasting and postprandial blood glucose, HbA1c, C-peptide, insulin, total, LDL and HDL cholesterol, triglyceride levels were detected as well. The GI values for honeys from different geographical origin were found to be various. In comparison with the fasting values, postprandial decrease in the insulin levels after Muş honey, increase in the C-peptide levels after Yüksekova and Muş honeys, decrease in glucose levels after Şemdinli and Kayseri honeys, decrease in triglyceride levels after Şemdinli and Muş honeys, decrease in cholesterol levels after Yüksekova and Muş honeys were determined statistically significant. Some local honeys might have lowering effect on glucose and insulin levels while no significant effect on C-peptide and HbA1c levels were observed. A long-term further research is needed to evaluate the metabolic effects of different types of honey with different glycemic indices, comparatively on healthy and insulin resistant individuals.

Keywords: Honey, glycemic index, glucose, c-peptid

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