symposium on euroasian biodiversity

ORAL-GHDBIO-OP218

The Effect on *β*-Catenin Gene Expression of Grape Seed Extract in Experimental Diabetic Rats

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Aim of the study: Diabetes Mellitus (DM) a chronic metabolic disease which occured as a result of deterioration in the signaling pathways of insulin in the target tissues. And, this case continued throughout the patient's life and reduced quality of life. WNT pathway is involved in lipid metabolism and glucose homeostasis, and β-catenin is located in this patway. In this study, we aimed to investigate the effects of grape seed (*Vitis vinifera* L.) extracts on β-catenin gene expression in wistar rats created experimental diabetic.

Material and Methods: Rats were divided into five groups; healthy control group, diabetic control group, 100mg/kg, 200mg/kg and 400mg/kg extracts given the treatment groups. Methanol extract of Vitis vinifera was administered orally for 4 weeks. The β-catenin gene expression levels were determined by quantitative Real Time-Polymerase Chain Reaction (Real Time-PCR) method in liver and pancreas of rats.The statistical analysis was performed and One-way ANOVA (Tukey) was used to test for differences between groups.

Results: The results of β-catenin gene expression obtained from the liver and pancreas tissue were determined no significant difference among the groups (P>0.05). Our study results showed that the administered treated doses of seed extracts have not any effect on β-catenin gene expression in these tissue.

Acknowledgements: The study was supported by grants from the Coordination Committee of Scientific Research Projects of Selçuk University (BAP, no:13201030).

Key Words: β-catenin,Gene expression, Diabetes mellitus, Grape Seed,*Vitis vinifera* L., Diabetic rat.