



Letter to the Editor

Letter to the Editor: "Effect of grape seed extract on β -catenin gene expression and hyperglycemia in rats induced by streptozotocin"

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Editöre Mektup: "Üzüm çekirdeği ekstresinin streptozotosin ile indüklenen sıçanlarda β -katenin gen ekspresyonu ve hiperglisemi üzerine etkisi"

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Dear Editor

This letter is related to the article titled "Effect of grape seed extract on β -catenin gene expression and hyperglycemia in rats induced by streptozotocin" published in Volume 39, Issue 2 of the Eurasian Journal of Veterinary Sciences in 2023.

First of all, we would like to thank you for the study whose aim was to determine the effect of grape seed extract (GSE) on body weight, blood glucose, and β -catenin gene expression in experimental Type 2 diabetic rats. We read this article with interest and have one suggestion for the authors. The authors reported that the effect of grape seed extract on blood glucose, body weight, and B-catenin gene expression levels determined in the Wnt/ β -catenin signaling pathway in Type 2 Diabetes Mellitus.

Instead of examining the expression levels of the tissue materials obtained due to the experimental design at a single gene level, next-generation sequencing, and total transcriptome level will allow the expression levels of many genes expressed in the relevant pathway to be determined. In this regard, a literature search on the Web of Science with the keywords "streptozotocin", "diabetes", and "RNA-seq" revealed 29 studies in the last four years. Among these studies; there is a study on RNA-seq analysis in diabetic male mouse liver (Ge et al 2020). Again, different functional, cellular, and molecular models of diabetic cardiomyopathy were examined in Type I and Type II mouse models administered with Streptozotocin (Marino et al 2023). Elzinga et al. (2023) reported research results in which diabetic kidney disease and neuropathy were examined at the transcriptome level in type I and type II diabetic mice. In the currently planned

and realized experimental design, it is recommended that next-generation sequencing analyses in liver and pancreatic tissues be performed in a short time in terms of cost, time, and more information content. It is envisaged that further investigation of Type 2 Diabetes Mellitus disease at the transcriptome level in animal experimental models with grape seed extract and publication of the analysis results in international journals will have a serious interest potential for researchers working on this subject.

References

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