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Investigation of anti-hyperglycemic effect of *Peganum harmala* seeds (Zygophyllaceae) on Streptozotocin diabetic rats

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It was researched in this study, the anti-hyperglycemic effect of the extract prepared from *P. harmala L.* seeds, harmine and harmaline alkaloids fixed to be present in the extract in the GC-MS analysis of seed's extract on the streptozotocin diabetic rats. It was given to diabetic rats four different doses of liquid extract which is prepared from *P. harmala L.* seeds. It was fixed that there was significant decrease in the rats' blood-glucose measure with 1.00 g/kg, 1.25 g/kg and 1.50 g/kg doses. It was observed that harmine 50 mg/kg and harmaline 125 mg/kg doses made fall down the blood glucose measure rightly in the first one hour. Glibenclamide and insulin was used as the reference drug in this study and there was no difference between glibenclamide and total extract and the activity of harmine and harmaline. Insulin is found to be more effective than extract and alkaloids. But in the first hour of the study, it was fixed that there was no significant difference between the activities of harmine 50 mg/kg and insulin. If we take these results into consideration, it can be thought that total extract of *P. harmala L.* and the alkaloids of beta carboline (harmine, harmaline) can be a useful source to develop new oral anti-diabetic agent. But it is necessary to do more comprehensive pharmacological and toxicological studies in this subject.

Biography

Hulya Ozdemir has completed her PhD in Faculty of Medicine. She is working as a Professor at the Medicine Faculty of Yuzuncu Yil University. She is the head of department of Pharmacology and Toxicology. She has published more than 70 papers and her research areas are mainly with plant therapy on the diabetes and cancer diseases, antioxidants and behavioral pharmacology.

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