

Investigation of Effects of Chaste Tree (*Vitex agnus-castus* L.) on Diabetic Wound Healing in Rats

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Aim of the study: Man used to use plants for feeding and treatment for disease since the early ages. The plant variety used also increases day by day. We also investigated the effect of Hayıt (*Vitex agnus-castus* L.), a medicinal herb in our study, on the diabetic wounds on rats for whom we have developed experimental diabetes. In our study, both male and female rats were used and 5 groups were formed: control, SHAM, 65 mg / kg, 265 mg / kg and 465 mg / kg. The extracts in dose-adjusted doses were injected into the wound area for 21 days. In 21 days, wound areas were measured and the results were compared.

Material and Methods: For the study, an approval has been obtained from Pamukkale University Animal Experiment Ethics Committee no. 45403 at the 2016/05 meeting. In our study, healthy female and male rats of Wistar-Albino genus and leaves of viticulture plants were used. To cause experimental diabetes, (STZ) (Sigma, St. Louis, Mo., USA) was given at rats. After leaves were dried, milled with the aid of blender (Waring Commercial Blender, USA) and then plants separated in small pieces were extracted with ethanol (Merck) for 6 hours at 55 °C in a water bath (Nucleon Water Bath). The solvent in the solution was evaporated on a Rotary Evaporator (IKA RV10, Germany) at 50 ° C. The remaining water in the extract was frozen in a lyophilizer (Labconco Freezone 6) machine. The obtained extract which calculated according to the group weights, was injected into the wound area for 21 days with water.

Results: As a result, we found that differences between in groups and in male and female rats. Also measured heal length show that our result is effective. When the groups were compared with each other, the best healing rate of 265 mg / kg among female rats. In male rats, this dose was determined to be 465 mg / kg. Also in 465 mg/kg male rats' wound completely *Vitex agnus-castus* L. Is effective for wound healing when is used truly doses.

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