World Academy of Science, Engineering and Technology
International Journal of Pharmacological and Pharmaceutical Sciences
Vol:8, No:12, 2014

# Paeonol Prevents Diabetic Nephropathy Progression in STZ-Induced Diabetic Rats

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**Abstract :** Objective: To investigate the influence of Paeonol on diabetic nephropathy progression in streptozocin (STZ) - induced diabetic rats. Method Male Wistar rats were injected STZ 30mg.kg-1 combined with Freund's complete adjuvant (CFA) 0.1mL/rat once a week for three weeks. The diabetic rats were treated with Paenol for 13 weeks. At the end of the experiments, the rats were anesthetized. Serum and the kidney were collected. Serum superoxide dismutase (SOD) activity, malondialdehyde (MDA), blood urea nitrogen (BUN), creatinine (Cr) and total cholesterol (Chol) level were detected; kidney paraffin sections were prepared and HE and PAS staining sections were used to evaluate the pathology changes of the kidney. Immunohistochemical analysis was used to observe the expression of VEGF and fibernectin expression in the kidney. Result The blood glucose level remained over 16mmol. L-1 for 13 weeks and the ECM accumulated in the diabetic kidney apparently. Paeonol treatment increased serum SOD activity, however, MDA, BUN, Cr, and Chol level was decreased by paeonol treatment. VEGF and fibernectin expression were increased significantly in the DN rats and paeonol treatment ameliorated the overexpression. Conclusion: paeonol prevented the progression of DN.

**Keywords :** paeonol, STZ, diabetic nephropathy, fibernectin expression, kidney paraffin sections
**Conference Title :** ICPP 2014 : International Conference on Pharmacy and Pharmacology
**Conference Location :** Bangkok, Thailand
**Conference Dates :** December 24-25, 2014