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The Assessment of Nephrotoxic Effects of Peganum Harmala In Rat

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Abstract : Peganum harmala used traditionally as an emenagogue and abortifacient agent in Morocco phytotherapy. Even thought its benefits effects, Peganum harmala remained severely toxic for the organism especially in strong doses. The present study was initiated to evaluate the nephrotoxic effects of aqueous extract of Peganum harmala seeds (PHS). The solution containing aqueous extract of PHS was administered orally by gavage at the dose of 2g/kg body weight during twenty days. Rats were used in this study, two groups were considered, a treated group received an extract of PHS at dose 2g/kg bodyweight and control group received an amount of tap water equivalent to the volume of the vehicle used for the dose of PHS extract. The data we collected showed that aqueous extracts of PHS administered during twenty days induced a significant changes in renal function expressed in decreases of diuresis (from 10 ± 0,58 to 5,33 ± 0,33 ml/24 hours) and the same profile for mean arterial blood pressure (from 125 ± 2,89 to 96,67 ± 6,01 mmHg). The histopathological study showed an alteration of kidney cells in treated group with regard the control group which is not affected. In conclusion: our results indicate that the aqueous extract of PHS induces toxicity may affect severely kidney function and causes renal histopathology.

Keywords : peganum harmala seeds, nephrotoxic, diuresi, histpathology, kidney
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