World Academy of Science, Engineering and Technology International Journal of Pharmacological and Pharmaceutical Sciences Vol:8, No:11, 2014

Acute Toxicity Studies of Total Alkaloids of Seeds of Datura stramonium in Female Rats: Effect on Liver and Kidney

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Abstract : The effects of acute administration of TOTAL alkaloids, the main active principle of Datura stramonium, with toxic properties, were studied in female Albino-Wistar rats. After acute intraperitoneal administration of dose 120 mg kg-1 (\approx 1/3 DL50) of total alkaloids to the seeds of D. stramonium, there were no remarkable changes in general appearance and no deaths occurred in any experimental group. After 5 days a significant reduction was observed in total alkaloids of seeds. The Red Blood Cells (RBC), Hematocrit (HCT) and Hemoglobin (HGB) show significant changes in the treated groups. There were no statistical differences in Glutamic-pyruvic Transaminase (GPT), Alkaline Phosphatase (ALP), urea, glucose and total protein observed between groups. After 24 h Glutamic-Oxaloacetic Transaminase (GOT) and creatinine were significantly higher in the treated male rats than the control group histological examination of liver showed no histopathological changes.

Keywords: datura stramonium, rat, liver, kidney, alkaloids, toxicity

Conference Title: ICPPNP 2014: International Conference on Pharmacognosy, Phytochemistry and Natural Products

Conference Location: Istanbul, Türkiye Conference Dates: November 28-29, 2014