OMICS International
conferenceseries.com

Rehab F Abdel-Rahman et al., J Pharma Care Health Sys 2015, 2:4
http://dx.doi.org/10.4172/2376-0419.S1.006

European Pharma Congress

August 25-27, 2015 Valencia, Spain

The potential hepatoprotective activity of *Allium paniculatum* and *Capparis spinosa* on Thioacetamide induced hepatotoxicity in rats

Rehab F Abdel-Rahman[1], Hasan Yusufoglu[2], Gamal A Soliman[2], Irem Tatli-Cankaya[3], Saleh I Alqasoumi[4], Serap Arabci Anul[4] and **Galip Akaydin[3]**

[1]National Research Centre, Egypt
[2]Salman bin Abdulaziz University, KSA
[3]Hacettepe University, Turkey
[4]King Saud University, KSA

Thioacetamide (TAA) administration is an established technique for generating rat model of liver damage. The aim of this study was to investigate the potential hepatoprotective effect of the ethanol extracts of the aerial parts of *Allium paniculatum* L. (A. *paniculatum*) and *Capparis spinosa L.* (*C. spinosa*) in experimental liver damage induced by TAA in rats. Forty two adult male Wistar rats were divided into seven groups. Rats of the 1st (normal control) and 2nd (TAA-intoxicated control) groups received the vehicle (1 mL/kg). Animals of the 3rd group (reference) received silymarin (50 mg/kg). The 4th to the 7th groups were treated with *A. paniculatum* and *C. spinosa* extracts (200 and 400 mg/kg, respectively). Rats were administered the vehicle, silymarin or extracts orally for 21 days and simultaneously administered TAA (except the 1st group) at subcutaneous dose of 50 mg/kg, 1 h after the respective assigned treatments every 72 h. At the end of the experimental period, animals were sacrificed by cervical decapitation, blood samples were collected for biochemical assessment. Livers were dissected out for determination of their antioxidant status and for histopathological examination. Injection of TAA significantly elevated serum levels of ALT, AST, ALP and γ-GT and total bilirubin in hepatotoxic group compared to normal controls. In the liver, significantly elevated level of malondialdehyde (MDA), lowered levels of reduced glutathione (GSH), catalase (CAT), glutathione peroxidase (GPx) and superoxide dismutase (SOD) were observed in TAA-hepatotoxic group. Treatment of rats with *A. paniculatum* or *C. spinosa* displayed hepatoprotective effect in a dose dependent manner as evident by reduced levels of serum ALT, AST, ALP, γ-GT, BRN and hepatic MDA concentration, as well as higher CAT, GPx, SOD activities and GSH concentration compared to TAA-hepatotoxic controls. In conclusion, *A. paniculatum* and *C. spinosa* extracts attenuate hepatotoxicity induced by TAA.

rehabs2001@yahoo.com

Notes: