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Evaluation of ED50, TD50 and LD50 of *Acacia senegal* (Hashab) bark on rats as antidiarrheal agent

Eiman Ahmed Mohamed Zain Adam and Medani A B University of Medical Science and Technology, Sudan

A cacia senegal (Hashab Tree) bark is traditionally used as antidiarrheal agent after immersing it in water. In this study, I evaluate the antidiarrheal effect of *Acacia senegal* on albino rats (after inducing diarrhea by administering *Cassia senna* leaves orally), toxic effect, margin of safety, and lethality of using *Acacia senegal* bark. 20 albino rats were segmented into 4 groups each group consisted of 5 rats; first group is control group which did not receive any amount of *Acacia senegal* bark, second group is effective dose (ED50) group which received 0.18g/100g of body weight daily for 3 weeks, third group is toxic dose (TD50) group which received 0.99g/g of body weight daily for 3 weeks, fourth group is lethal dose (LD50) group which received 1.8g/g daily for 3 weeks. Blood samples were taken from all the rats (containing lithium heparin anticoagulant), the blood and plasma was separated by centrifugation 300RBM for 2-3 minutes. Then Alkaline Phosphatase Enzyme (ALP), Glutamic Oxaloacetic Transaminase (GOT), urea, and creatinine were tested to know the significance change in each parameter; to know if there is a hepatotoxicity or kidney toxicity side effects; this was done by using Mindray BS-200 instrument, then result data was collected and analyzed using variance statistical methods using SAS statistical package version (9.1). The results showed significance increase in urea but not in creatinine, which may indicate kidney abnormalities, but no significance change in ALP and GOT enzymes were observed; which indicate safety to liver.

Biography

Eiman Ahmed Mohamed Zain Adam is currently a graduate student at University of Medical Science and Technology, Faculty of Pharmacy.

eimy246@hotmail.com

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