

8th Annual Pharma Middle East Congress

October 10-12, 2016 Dubai, UAE

Evaluation of the toxic effect of cinnamaldehyde food flavor on the liver and kidneys of rats

Amna Bashir Medani Ahmed¹ and Mazin Ahmed Eltahir Mohammed²

¹Nile College of Pharmacy, Sudan

²University of Medical Sciences and Technology, Sudan

Cinnamaldehyde a food flavor has a high human consumption. In this study, we evaluated toxic effect of cinnamaldehyde on rats liver and kidneys. Rats were separated into 4 groups, each group containing 5 rats. The first group is control which did not receive doses of cinnamaldehyde. Second group received 500mg/kg/day (ED50), third group received 1200 mg/kg/day (TD50) and last group received 1900mg/kg/day (LD50) of cinnamaldehyde in food for period of 2 weeks. Then, sufficient amount of blood samples were collected in tube (containing lithium heparin anticoagulant), plasma was separated by centrifugation 300RBM for 3 times. Then, GOT, ALP, urea and creatinine tests were performed using Mindary BS-200 instrument. The data was collected and analyzed by variance statistical methods using SAS statistical package version (9.1) which showed a significant increase in ALP enzyme level and urea that indicated abnormalities in liver and kidney function but did not show a significant change in GOT level and creatinine. Thus the study showed that cinnamaldehyde can cause liver and kidney abnormalities and this effect is dose related, so there must be awareness and rational use of cinnamaldehyde within margin of safety and lethality as shown in the study.

Biography

Amna Beshir Medani Ahmed has completed her PhD from University of Khartoum and Postdoctoral studies from University of Khartoum, School of Veterinary Medicine. She is an Associate Professor of Pharmacology and Toxicology at Nile College of Pharmacy, Sudan and is a premier Founder of Toxline.org and a Member of many international organizations and bodies. She has published more than 27 papers in reputed journals and conferences and has been serving as an Editorial Board Member of repute.

amna_medani@yahoo.com

Notes: