Medani A B et al., Pharmacoeconomics 2017, 2:1(Suppl)
http://dx.doi.org/10.4172/2472-1042.C1.002

Biochemical and pathological low doses profile in Nubian goats treated with PolyDADMAC in drinking water

Medani A B[1], **El Badwi S M A**[2], **Bakhiet A O**[3] and **Amin A E**[2]
[1]Nile College, Sudan
[2]University of Khartoum, Sudan
[3]Sudan University of Science and Technology, Sudan

The effects of oral doses of PolyDADMAC were daily examined on Nubian goats at two different dose-rates, namely 0.5 mg/kg/day and 2.5 mg/kg/day to group (2) and (3) goats, respectively compared to untreated Nile water given to a group (1) of control goats under experimental conditions. It was observed that death occurred due to variable levels. In polyDADMAC dosed animals, clinical signs included dullness, loss of weight, loss of appetite, diarrhea, difficulty in respiration and recumbence. Postmortem changes included hemorrhagic and congested lungs, congested livers, inflamed intestines in addition to bloated rumens and their kidneys showed fatty changes Oral dosing with PolyDADMAC caused lung emphysema, lymphocyte infiltration and edema. Intestines showed congestion and sloughing of intestinal epithelium, their livers manifested generalized fatty change and lymphocyte infiltration and spleens suffered from hemosiderosis, while the control goats showed normal clinical, postmortem and histopathological picture. The serum concentrations of GPT, LDH, CK and GOT showed variable changes ($P<0.01$-$P<0.001$). Serum metabolites significantly increased ($P<0.01$-$P<0.01$) in urea and creatinine values compared to the control group. Deviated values of electrolytes in serum ($P<0.01$-$P<0.001$) from the control values namely, magnesium, iron, sodium, potassium, calcium and phosphorus. Other hematological disorders were manifested mostly by the group of goats received the highest dose. Hepatic and renal dysfunctions, as a sequel to treatment with the under-test polymer, were observed forming a co-related picture which expresses its toxic and sometimes lethal effects.

Biography

Medani A B has completed her PhD from University of Khartoum. She is the Founder of Toxline.org, a new approach to connect professionals around chemical safety for the human, animal and environment safety. She has published more than 35 papers in reputed journals and conferences.

amna_medani@yahoo.com

Notes: