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Acute toxicity of alum to New Zealand rabbits

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New Zealand rabbits were purchased, weighed and divided into 3 groups, each of three. Group 1 animals were the undosed controls. Test groups were given alum at dose rates of 1% and 20% for groups 2 and 3, respectively for acute toxicity under ideal experimental conditions. Clinical signs, post-mortem and histo-pathological changes were observed. Serum investigations included enzymatic concentrations, metabolic changes, fluctuations in electrolyte levels and hematological changes. Mortalities occurred to variable degrees irrespective of the dose level. The tested rabbits showed uncontrolled diarrhoea, uncontrolled salivation, dullness, shivering, inappetance and finally recumbency depending in severity on the dose. On atomic absorption, only the lungs kept residual alum, while the livers washed it out. Oral dosing with alum caused congestion of livers with white spots, stiff-greenish lungs and inflamed empty intestines. The un-dosed group 1 rabbits showed a normal picture. On histopathology, alum-dosed group of rabbits showed nephro-necrosis in the cortex and medulla, emphysema in the lungs and congestion and necrosis of the hepatocytes. Alum was considered toxic to New Zealand rabbits at all dose rates tried.

Biography

Medani A B has completed her PhD from University of Khartoum and Postdoctoral studies from University of Medical Sciences & Technology. She is an Assistant Professor of Pharmacology & Toxicology, Faculty of Pharmacy, UMST. She has published more than 5 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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