



Tropentag, October 11-13, 2006, Bonn

“Prosperity and Poverty in a Globalised World—
Challenges for Agricultural Research”

An Assay of Some Biochemical Parameters in Donkeys (*Equus asinus*) Medicated at Therapeutic Level with Doramectin Injectable Formulation

HISHAM SERI¹, TIGANI HASSAN², MOHAMED SALIH³, ADAM ABAKAR⁴

¹University of Nyala, Clinical Studies, Sudan

²University of Khartoum, Medicine, Pharmacology and Toxicology,

³Central Veterinary Research Laboratory, Mycoplasma,

⁴University of Nyala, Parasitology, Sudan

Abstract

Purpose: this study was designed to evaluate the effect of medication, if any, with the anthelmintic Doramectin Injectable formulation through two routes of injection in donkeys naturally infected with gastrointestinal nematodes.

Method: this study involved twenty (10 male and 10 female) donkeys proved to be naturally infected with gastrointestinal nematodes; they were divided into two treatment groups each of five male and five female animals. The animals in treatment group 1 received single injection of Doramectin intramuscularly and the animals in treatment group 2 also received single injection of Doramectin subcutaneously at the neck region, at the manufacturer recommended dose i. e. 200 mcg/kg body weight. Before treatment (at day zero) and then every four days post treatment for 28 days, blood samples were collected from the animals and the serum was subjected to serum-biochemical analysis.

Results: animals treated with doramectin subcutaneously showed significant increase ($p < 0.05$) in total protein concentration 16 days post treatment. Serum urea concentration showed significant increase in both treatment groups 20 days post treatment, also sodium and potassium level increased after treatment in both treatment groups. Results obtained although showed some significant changes in some parameters but they were within the normal range suggested by other researchers. At the end of the experiment all the parameters measured were at the normal level. No adverse reactions were observed during the experiment period.

Conclusion: results obtained in this study indicated that doramectin Injectable is safe to be used in donkeys at the manufacturer recommended dose, but further studies are encouraged to be conducted to ascertain safety.

Keywords: Doramectin, blood biochemical constituents, donkeys