

Clinical Management of Multiple drug toxicity in Hallikar Bullocks

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Introduction

Most of the drugs are safe in recommended doses if they have used judiciously. But due to their easy availability over the counter, they are often misused by the animal owners without knowing their harmful effects. This paper puts on the record of such case of toxicity of multiple drug therapy and its successful clinical management.

Case History and Clinical Examinations

Three Hallikar bullocks (aged about 6-7 years and weighing about 300-350) were presented with the history of diarrhoea and excitement. Anamnesis revealed that the owner had drenched them with albendazole suspension (250 ml; 25 mg/ml), tetramisole powder (25 g; 300 mg/g), enrofloxacin suspension(40ml; 100 mg/ml) and calcium syrup (50 ml) to each bullock. The clinical signs developed after 3hours of administration of the drug mixture and the animals revealed the clinical signs of diarrhoea, tremors, salivation, excitement and anorexia.

Treatment and Discussion

High doses of benzamidazoles increase the permeability of cell membrane to the protons, which intern leads to diarrhea (Brander and Pugh, 1991). Tetramisole is a cholinomimetic drug and has very narrow margin of safety. Most frequent side effects of fluoroquinolones are gastrointestinal disturbances and CNS excitement in large animals (Vancutsem *et al.*,1990; Norrby,1991).

One bullock was died immediately after drenching the solution and this might be due to aspiratory pneumonia.

Two bullocks with convulsions and excitement were administered with trifluopromazine hydrochloride (Siquil®, Sarabhai Zydus,Ahmedabad) @0.25mg/kg IM immediately to control the excitement and convulsions as it is an antipsychotic drug belonging to the phenothiazine group. It acts by

potent dopaminergic D₂ receptor blocking action and cause psychomotor slowing and calming of the animals (Nicholas Booth *et al.*,2001).

Both the bullocks were maintained on intravenous fluid therapy (Ringers lactate (5ml/kg) and dextrose 5%(2.5 ml/kg) for first two days and subsequently put on oral rehydration therapy. As the fluid helps in instant replenishment of electrolyte and energy in conditions associated with fluid and electrolyte imbalance.

Vitamin B₁,B₆ and B₁₂ (10 ml/bullock, Tribivet®, Intas Pharmaceuticals, Ahmedabad) was administered intravenously twice daily for three consecutive days as a supportive therapy for optimizing the metabolic process (Chakrabarti,2002).

Both the animals recovered uneventfully after three days of the therapy and resumed to normal status.

Summary

Three bullocks suffered from toxicity of multiple drug therapy with albendazole, tetramisole, enrofloxacin and calcium syrup which were exhibiting the clinical signs of excitement, convulsions, diarrhoea and surviving two bullocks were treated with trifluopromazine hydrochloride, fluid therapy and B-complex vitamins and were recovered uneventfully.

References

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