

Successful Management of Snake Envenomation in a Hallikar Bull

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Snake envenomation in man and animals is an emergency that requires immediate examination and medical attention. The severity of the snake bite in animals depends upon the type of the snake, size of the animal, the number of bites and the quantity of the venom injected during the time of bite (Palanivel, *et al.*, 2007). The clinical signs are more severe in small animals as compared to the large animals. Snake bite generally occurs during the time of grazing, ploughing etc. Reports on the management of snakebite have been recorded in dogs (Vijayakumar, *et al.*, 2001) and cats (Hungerford, 1990) but the information available on envenomation in bull is scanty. This paper records a viper snake bite in a Hallikar bull and its successful management.

HISTORY AND CLINICAL OBSERVATION

A Hallikar bull aged about three years old was presented to the Teaching Veterinary Clinical Complex (TVCC), Veterinary College and Research Institute, Namakkal, Tamil Nadu with the history of sudden swelling in the forelimb region following snake bite while grazing. Clinical examination revealed pale mucous membrane, ataxia, salivation, unilateral epistaxis, tympany and excitement. The fang mark was present in the distal part of the forelimb. Temperature, pulse rate and respiration rate were within normal range. Whole blood was collected and tested for twenty minutes clotting time. The blood did not clot after 20 minutes period. Based on the history, clinical signs and clotting time this case was confirmed as snake

envenomation and was treated with intravenous administration of 40 ml of Polyvalent Snake Venom Antiserum mixed in normal saline. In addition, antibiotic Amoxycillin was given intramuscularly @ 20mg/kg body weight. Epistaxis stopped following the administration of antivenom. The antibiotic therapy was continued for three days.

DISCUSSION

An uneventful recovery was recorded following treatment with Polyvalent Snake Venom Antiserum along with antibiotics and fluids. Polyvalent Snake Venom Antiserum had been tried earlier successfully for the treatment of snake bite envenomation in dogs, cats and other animals (Bailey, 1992, Nichol, 1995 and Jain, 1986). The toxicity of snake venom is attributed to proteolytic enzymes like phosphatidase, cholinesterase and neurotoxin. The clinical picture of snake bite exhibited a great deal of variation depending upon the chemical composition of venom, type of animal affected, site of bite and the amount of venom injected. The fang of a snake is invariably contaminated with various types of bacteria which warrants the use of broad spectrum antibiotics in the affected animals. Polyvalent Snake Venom Antiserum may sometimes cause anaphylactic reactions as it is derived from hyper immunized horse serum with concentrated and purified immunoglobulin which may lead to immediate or delayed immune reactions in certain cases (Jain,

1986). Also the twenty minute clotting time of whole blood plays an important role in determining the administration of Polyvalent Snake Venom Antiserum. If failure to clot by 20 minutes indicated that case requires repeated administration of Polyvalent Snake Venom Antiserum. But in this case since the blood clotted within 5 minutes after the administration of first dose and the epistaxis got arrested, no second dose was needed.

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