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## Management of delayed case of snake bite envenomation in a bullock

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**Abstract**

The four year bullock was presented with the history of swelling in forelimb region and blood oozing out on the brisket region. On clinical examination the fang mark below the swelling, haematuria, melena, pain and oedema at the swelling site was noticed. The whole blood clotting time test was positive and treated for snake bite envenomation with snake venom antiserum, fluids, antibiotics for three consecutive days and the animal was recovered uneventfully.

**Keywords:** swelling, snake bite, hemotoxic, whole blood clotting time test

**Introduction**

There are nearly 216 species of snakes in India in which 60 are considered poisonous (Gupta *et al.*, 2014) [1]. The most poisonous, medically important species of India distributed widely throughout the country, nearly one lakh animals in the world fall prey to venomous snake bite every year. In India, snake bite is a common and important cause of accidental death in livestock. Exact data on snake bite in livestock is not available in the country. However, this is very common death cause in animals especially in rural areas of India. Snake bite is common in animals such as cattle, sheep, goat and dogs. Snake venom is a mixture of toxins. Depending on the type of snake the venom constituents vary. The animals exhibit various symptoms like cardio pulmonary dysfunction, local tissue damage, blood coagulation defects, ataxia etc, depending on type of snake bite. Poisoning from snake venom in animals is an emergency which requires immediate attention or otherwise delayed and inadequate treatment may lead to untoward consequences so snake bite with Envenomation requires immediate attention and treatment is must.

**Materials and Methods**

The bullock of four years old presented with history of swelling in forelimb region and blood oozing out on the brisket region from the previous day. On clinical examination, the animal was dull and depressed, congested mucous membrane. Temp: 37.2 °C, H/R: 56/min, R/R: 23/min. The fang mark was noticed below the swelling. Haematuria and melena also noticed. It also evinced pain and oedema at the swelling site. The two millilitres (2 mL) of blood was collected from the animal and it was observed for its whole blood clotting time (WBCT). It was not clotted for more than six hours. Finally, the case was confirmed as snake bite envenomation of hemotoxic type.

**Results and Discussion**

On first day, the animal was treated with snake venom antiserum 2 vials, Inj. Cefoperazone sulbactam sodium @ the dose rate of 10 mg/ Kg body weight, Inj. Normal saline (1500 mL), Inj. Flunixin meglumine @ the dose rate of 2.2mg/ Kg body weight, Inj. Ethamsylate 10mL and Inj. Lasix 10mL and the animal responded well to the treatment. On 2<sup>nd</sup> day the blood was clotted after two hours from the time of collection, the same treatment was followed along with tetanus toxoid, on 3<sup>rd</sup> day, the collected blood clotted within 20 minutes, the same treatment was followed. On fourth day all the symptoms such as haematuria, oedema, swelling and pain got disappeared and the animal was recovered uneventfully.

Snake venoms are complex mixture of proteins and peptides, consisting of both enzymatic and non-enzymatic compounds. Snake venoms also contain inorganic cat ions such as sodium, calcium, potassium, magnesium, and small amounts of zinc, iron, cobalt, manganese, and

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nickel. The other components of snake venoms are glycoproteins, lipids and biogenic amines, such as histamine, serotonin and neurotransmitters (Catecholamines and acetylcholine) (Klaassen, 2008)<sup>[3]</sup>. The clinical symptoms of pale conjunctival mucous membrane, incoordination, frothy salivation, dullness, tympany with low pH were in line with the reports (Kachhawa *et al.*, 2016)<sup>[2]</sup>. An uneventful recovery was recorded following the treatment with antiserum along with antibiotics, dexamethasone and tetanus toxoid. Broad-spectrum antibiotics, tetanus toxoid and polyvalent snake venom antiserum have earlier been tried successfully for the treatment of snakebite envenomation in dogs, cats and other animals (Kachhawa *et al.* 2016)<sup>[2]</sup>.

#### References

1. Gupta YK, Peshin SS. Snake Bite in India: Current Scenario of an Old Problem. *Journal of Clinical Toxicology*. 2014; 4:182.
2. Kachhawa J, Sharma P, Tanuj A, Tanwar K, Singh AP. Therapeutic management of snake bite in buffalo A Case Report. *Indian Journal of veterinary medicine*. 2016; 36(2):134-135.
3. Klaassen CD. Properties and Toxicities of animal Venoms. In: *Toxicology*. 7th Edn, McGraw-Hill, New Delhi, 2008, pp.1093-1098.
4. Vijaykumar G, Kavitha S, Krishnakumar K, Thirunavukkarasu PS, Subramanian M. Snake envenomation in dog- A case report. *Indian Veterinary Journal*. 2001; 78:1146-1149.