

## Clinical Management of Snake bite in a dog

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Snake bites and insect stings are most commonly encountered biotoxins (Mount, 1989). Snakes do not attack/ prefer not to bite animals unless they are disturbed / cornered. Among the domestic animals, dogs are most frequently attacked and killed by the snakes (Osweiler, 1996). Cattle and horses are also attacked while grazing. Sheep, goat and pigs are occasionally struck, while cat is not often attacked because of its greater caution and superior agility when hunting (Shukla, 2009). Snake bite with envenomation is an emergency and rapid examination and initiation of proper treatment is essential (Vijaykumar, et al., 2001).

### Case history and clinical examination

A two-year mongrel male dog weighing about 9 kg was presented to the veterinary dispensary Hanabe, with a history of fighting between the pet and snake two hours before and swelling on the ventral buccal region after that. Animal was refusing food & water, and attained sternal recumbency. Upon clinical examination, there was swelling at the left ventral aspect of the floor of the buccal cavity.

Animal showed depression, hypersalivation and evinced the pain upon palpation of the swollen area. The temperature was 99° F, respiratory rate was 17/min, pulse rate was 54/min and the blood pressure was 88/75mm.Hg. Blood examination revealed increased hematocrit (52%) and leukocytosis (18×10<sup>3</sup>/μl). Based on the clinical symptoms, clinical findings and history of the owner it was diagnosed as case of snakebite and therapeutic measures were undertaken immediately.

### Treatment and Discussion

The animal was kept calm and it was made to lie on lateral recumbency with its head little below the level of the rest of the body so as to minimize the circulatory spread of the venom. The fang mark area of the skin was thoroughly washed with 5% potassium permanganate solution. Then the animal was given with betamethasone (2mg) intramuscularly prior to the

administration of anti-snake venom. Then 10 ml of polyvalent anti-snake venom (Bharat Serums and vaccines limited, Mumbai) was administered along with 5% dextrose intravenously over a period of two and half hours. Beside this broad spectrum antibiotic (Intacef) 250mg administered intravenously. Atropine sulphate 0.02mg/kg body weight and tetanus toxoid (0.5ml) were administered subcutaneously. The owner of the animal was advised not to give any food and fluid to the animal. Second day onwards the animal was given only with antibiotics and intravenous fluids. This treatment was continued for five days. Animal recovered and started taking liquid and solid diet subsequently.

Species of the snake was not identified by the owner. Polyvalent snake anti-venom was preferred in the present case as it provides protection against the venom of big four (common cobra, common krait, saw scaled viper and russell's viper) species of the snakes. The use of steroids in snake bites is still debated; while some say they have no specific role, their administration does provide some help to the patient. The sequence that occurs in any introduction of foreign material into the human body is inflammation that is, the release of cytokines. Steroids reduce this inflammatory process (Swaminathan, 2005). The use of the corticosteroid prior to the polyvalent snake anti-venom also inhibits serum sickness (Shukla, 2009). The use of tetanus toxoid provides protection against the tetanus spore that might have entered animal body from contaminated snake mouth (Shukla, 2009).

### References

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