

PORCUPINE QUILLS INJURY IN DOG – TWO CASE REPORTS

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Two dogs were presented to Teaching Veterinary Clinical Complex (City Hospital), APMC yard, Gandhi Gunj, Bidar with porcupine quills one near the brisket region and another near the lateral aspect of left stifle. Since in both the cases quills could not be retrieved manually, both the animals were sedated with inj. xylazine at the dose rate of 1.0 mg/kg body weight, intramuscularly and quills were taken out. Successful recovery without any complication was noticed in both the cases.

Introduction

The porcupine (*Erethizon dorsatum*) is a nocturnal quill-bearing rodent often found in forests and shrubby ravines. Quills cover the entire body of the porcupine. When threatened a porcupine will face away from its aggressor with erect quills and slash at the attacker with its tail. The loosely rooted quills detach from the porcupine on contact. A quill embedded in tissue will migrate into deeper tissues rather than back out (Mathew *et al.*, 2006). Encounters between dogs and porcupines, resulting in quill injury, reported problems include pain, local tissue irritation/trauma and infection of tissues deep to the skin, quill migration into joints or vital organs and complications associated with penetration of thorax or abdomen (Mirakhur and Khanna, 1983; Grahn *et al.*, 1995 and Magee *et al.*, 1997). The present paper reports two cases of porcupine quill injury and its successful management in two dogs.

Case History and Observations

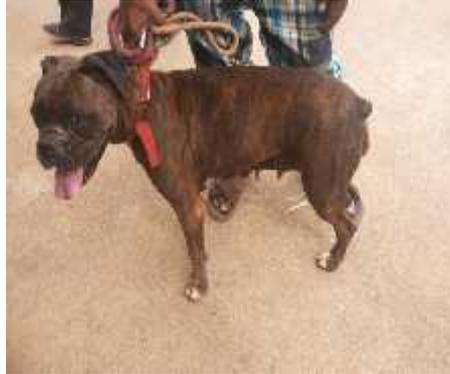
Case 1: A three year old, male, Doberman presented to Teaching Veterinary Clinical Complex (City Hospital), APMC yard, Gandhi Gunj, Bidar with a single porcupine quill near the brisket region. Pet was showing discomfort and panting. On clinical examination single porcupine quill in the brisket region noticed without any bleeding and discharge. An attempt was made to remove the quill manually without success, as it penetrated deeply inside the pectoral musculature (Fig-1).

Case 2: A two year old, female, boxer presented to Teaching Veterinary Clinical Complex (City Hospital), APMC yard, Gandhi Gunj, Bidar with two porcupine quills near the left stifle joint. On clinical examination both the quills penetrated on to the lateral aspect of stifle joint in the thigh musculature (Fig-2) and unable to retrieve manually.

Fig-1: Doberman dog showing penetrated porcupine quill into pectoral muscle.



Fig-2: Boxer dog showing penetrated porcupine quill on lateral aspect of left stifle.



Treatment and Discussion

Since in both the above cases we could not retrieve the quills manually, both the animals were sedated with inj. xylazine at the dose rate of 1.0 mg/kg body weight, intramuscularly and quills were taken out gently (Fig-3). Penetrated wound was flushed

with Betadine[®] solution and same ointment was applied externally. Ceftriaxone @ dose rate of 25 mg/kg body weight, intramuscularly for 3 days and meloxicam @ dose rate of 0.3mg/kg body weight, intramuscularly for 2 days were administered. The wound was dressed daily for 5 days. Both the pets recovered uneventfully.



Fig-3: porcupine quills after removal

Matthew *et al.*, (2006) reported high incidence of porcupine encounter in Siberian huskies, Rottweiler and German shepherd crosses might be attributed to high prey drive in these large breeds than small breeds of dogs. Additionally, the study population

tended to be younger than the overall hospital population, which may reflect increased activity or decreased obedience among these dogs, increasing the likelihood of a porcupine encounter, where as in present case Boxer and Doberman were affected.

Untreated or incompletely removed quills may migrate into deeper tissue. Grahn *et al.*, (1995) reported ocular complications included intraocular and periorbital quill migration. In this present paper quill migration was observed at stifle joint and brisket region.

The increased occurrence of quill injuries at certain times of the year is likely due to aspects of dog or owner or porcupine behavior. Porcupines are active year round with peak daily activity occurring in the dusk and dawn hours. Porcupines are more active during the warmer summer months because of foraging or mating behavior, dog owners are more likely to be active outdoors and to visit off-leash areas with their dogs during the warmer months rather than in winter (Matthew *et al.*, 2006), in this paper both the two cases also reported during summer season.

Summary

Successful management of Porcupine Quills Injury in two dogs was reported.

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