Scholars Journal of Agriculture and Veterinary Sciences **e-ISSN 2348–1854**
Sch J Agric Vet Sci 2015; 2(4A):285-286 **p-ISSN 2348–8883**

(An International Publisher for Academic and Scientific Resources) DOI: 10.36347/sjavs.2015.v02i04.003

A Unique case of Honey Bee Sting in Gir cow and its Therapeutic management

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Abstract: A case of Honey bee sting in Gir cow was reported with history of reddish swelling on vulvar region. The stingers were removed by scrapping using knife from the site. The cow was treated with Atropin sulphate, Dexamethasone, Neuroxine-B, Multivita and electrolyte infusion. The animal was successfully recovered after 8 hours of initial therapy with decreased body temperature and complete cessation of muscular tremors. The animal showed uneventful recovery after 7 days of therapeutic management.
Keywords: Honey bee sting, Gir cow, therapeutic management

INTRODUCTION:

Honeybees are herbivores that feed on nectar and pollen, which belongs to the family Apoidea, class Insecta and order Hymenoptera. Honey bee venom is a transparent acidic substance composed of different enzymes, proteins and amines that has the ability to produce toxic and allergic reactions in the body of affected individuals [7]. Bee venoms may be used as an antibiotic agent and to immunize individuals against certain infectious diseases [5]. Although honey bees usually do not sting until they are provoked, their stings possess a significant life threatening risk to human and animals [5, 3]. In USA, Hymenoptera (bees, wasps and hornets) are responsible for more human deaths than any other venomous animal [6]. Attacks by honey bees are particularly a problem in wooded hilly areas, groves and park etc., where swarms of bees are found hanging from the boughs of trees, in caves and on the walls of abandoned houses. Cattle, buffaloes, equines, dogs, etc., tethered under the shady trees harbouring honey bees hives may receive a fatal assault by these flies. Attack may be provoked by children hurling stones at the hives or when noisy equipments such as tractors, thrashers, lawn movers etc., are operated in areas too close to honey bee hives. In addition, bees when en-route to new colonies may invade stables or yards where in horses, cattle, buffaloes or other animals are housed. The present case report describes a case of honeybee stings in a Gir cow.

CASH HISTORY AND CLINICAL OBSERVATION:

A pluriparous Gir cow aged 10 years in its fourth parity was presented at the Cattle Breeding Farm, J.A.U., Junagadh, Gujarat (India) with the history of reddish swelling on vulvar region with multiple bee sting (Fig.1). On clinical examination, the cow revealed massive swelling on vulvar region with generalized redness on vulvar skin and muscular tremors. The animal was shown restlessness, excitement, increased rectal temperature, respiration and pulse rate. Clinical examination revealed numerous bee stingers in the vulvar swelling. Based on the history of honey bee sting, stringers in the vulvar region and clinical symptoms, this case was diagnosed as honey bee sting.

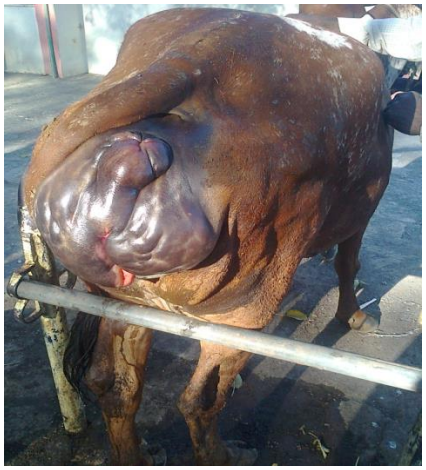

Fig-1: Reddish swelling with stingers in the vulvar region

TREATMENT AND DISCUSSION:

The first step in treatment following a bee sting is removal of stinger itself, stingers were removed by scraping using forcep from the vulval swelling. The cow was treated with Atropine Sulphate and Meloxicame @ 0.5mg/kg body wt., Dexamethasone @ 44mg, Frusemide @ 1mg/kg body wt., Neuroxine-12-v as well as Chlorpheniramine Meleate @ 10ml intramuscularly was repeated for three consecutive days. The cow was also treated with electrolyte therapy viz. Inf. Intalyte @ 1000 ml i/v once and antiseptic dressing with topicure spray locally.

Bee stings can commonly reveal variety of symptoms associated with local reactions, pain, swellings, cellulitis to systemic allergic reactions ranging from mild local urticarial rash, moderate angiooedema, asthama etc. or sever anaphylactic shock. The clinical signs associated with their sting may vary from mild to severe depending upon some factors including type and quantity of venom, stinging site and number of stings along with sensitivity of the victim [1]. In present study the clinical symptoms and gross features of lesions recorded were in close conformity with the findings of earlier workers [4]. The condition of the cow started stabilizing after 8 hours of initial therapy with decreased body temperature and complete cessation of muscular tremors. The stinger should be removed quickly and even a delay of a few seconds leads to more venom being injected [8]. Atropine sulphate was used to reduce excessive salivation and bronchial secretions. Whereas, Dexamethasone and Meloxicame were used to treat inflammatory conditions and bronchospasm [2] and electrolyte infusion was given to recover the animal from shock. The animal showed uneventful recovery after 7 days of treatment.

REFERENCES:

1. Almeida RA, Olivo TE, Mendes RP, Barraviera SR, Souza LR, Martins JG, Hashimoto M, Fabris VE, Ferreira JRS, Barraviera B; Africanized honeybee stings: how to treat them. Rev. Soc. Bras. Med. Trop., 2011; 44(6):755–761.
2. Cowell AK, Cowell RL, Tyler RD, Nieves, MA; Severe systemic reactions to Hymenoptera stings in three dogs. J. Am. Vet. Assoc., 1991; 198: 1014-1016.
3. Ferreira JRS, Almeida RA, Barraviera SR, Barraviera B; Historical perspective and human consequences of Africanized bee stings in the Americas. J. Toxicol. Environ. Health B. Crit. Rev., 2012; 15(2): 97–108.
4. Kumar V, Parthiban P; Honey bee sting in a cow and its therapeutic management. Indian Vet. J., 2014; 91(6): 83-84.
5. Muhammad G, Saqib M, Mallick SH; Honey-bee stinging (apisination): what the medical and veterinary professionals ought to know? Pakistan Vet. J., 2000; 20: 209–211.
6. Parrish HM; Analysis of 460 fatalities from venomous animals in the United States. Am. J. Med. Sci., 1965; 245: 129-241.
7. Schmidt JO; Toxinology of venoms from the honeybee genus Apis. Toxicon.1995; 33(7): 917–927.
8. Visscher P, Vetter R, Camazine S; Removing bee stings. Lancet., 1996; 348(9023): 301-302.