AN UNUSUAL CASE OF ULCERATED CUTANEOUS ACTINOBACILLOSIS IN A GRADED MURRAH BUFFALO – A CASE REPORT

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ABSTRACT

Glossal presentation of actinobacillosis is more common in ruminants and causes starvation due to difficulty for prehension and mastication. But this communication reports an atypical form of cutaneous actinobacillosis in a graded Murrah buffalo.

Keywords: Murrah buffaloes, *Bubalus bubalis*, ulcerative cutaneous, actinobacillosis

INTRODUCTION

Infection with *Actinobacillosis lignieresii* is responsible for the wooden tongue disease characterized by the presence of granulomas with pus containing small, hard yellow-to-white granules (Radostits et al., 2007). In cattle, actinobacillosis mainly affects the tongue and the lymph nodes of the head and neck. The disease can occasionally be found even farther afield and lesions occur in the soft tissues of the neck, in the wall of the fore stomachs and lung (Doxey, 1983). The present paper puts on record a case of ulcerative cutaneous actinobacillosis in a graded Murrah buffalo.

Case history and clinical observations

A 5-year-old graded Murrah buffalo was brought to the Teaching Veterinary Clinical Complex, NTR College of Veterinary Science, Gannavaram with complaint of an abnormal ulcerated growth on the left side of the neck region. History revealed that the animal was vaccinated against FMD 4 months back at the same site. On clinical examination, a firm round ulcerated mass with the longest diameter of 8-9 cm with thick yellow pus oozing from the lesion was found (Figure 1). It was decided to perform surgical resection of the growth.

TREATMENT AND DISCUSSION

The animal was prepared for aseptic surgery as per the routine procedure and surgical excision of the lesion was performed under premedication using triflupromazine hydrochloride 0.01 mg/kg bwt, IM and local infiltration with 2% lignocaine around the lesion. Grossly, the cut section was characterized by multiple lobules filled with yellowish inspissiated pus (Figure 2). Excisional biopsy was collected in 10% formalin and processed according to routine procedure and stained with haematoxyllin and eosin (H&E). Histopathology revealed multiple pyogranulomas (Figure 3) with...
Figure 1. Photograph showing firm, round ulcerated mass on the left side of the neck.

Figure 2. Cut section of the mass revealed multiple lobules filled with inspissiated pus.
Figure 3. Multiple granulomas with splendor hoepli material in the centres of the granulomas.

Figure 4. Photograph showing a club-like rosette with a central mass of bacteria (Splendore hoepli) surrounded by neutrophils, macrophages and epithelioid cells. HE,(400X).
splendorhoeppli reaction characterized by club-like rosettes with a central mass of bacteria surrounded by neutrophils, macrophages, epithelioid cells and fibrous tissue, suggestive of actinobacillosis infection (Margineda et al., 2013). In the present case KI was administered 6 g/day orally until symptoms of iodism-like lacrimation, anorexia, coughing and appearance of dandruff were observed. On the 12th post operative day, sutures were removed, and the animal made an uneventful recovery.

Infection with A. lignieresii appears to be a commensal of the oral cavity and pharynx of ruminants, particularly cattle and sheep usually after direct inoculation into the submucosal tissue through a wound or abrasion by rough feed or sharp object (Rycroft and Garside, 2000). However, one report challenging this assumption is an account of infection of several animals with A. lignieresii following caesarian section produced granulomatous lesions in cattle (deKruif et al., 1992). Atypical presentation of actinobacillosis have been described in the muzzle, nasal cavity, cervical area, lungs, skin and subcutaneous tissue of the eyelids and neck (Campbell et al., 1975, Rebhun et al., 1988, Radostits et al., 2007).

Histopathological changes observed in the present case were similar to the previous reports and consisted of neutrophils and club-like rosettes with a central mass of gram negative bacilli (splendore hoepli) colonies were observed (Taghipour Bazargani et al., 2010). In the present case, the granuloma was found on the lateral side of the neck reportedly after vaccination at the site. A. lignieresii inhabits the upper digestive tract of ruminants as a commensal and can establish infection when there is alteration in the mucosal or skin barrier integrity (Radostits et al., 2007). The integrity of the skin may have been damaged due to the vaccination on the neck which would have been eventually infected by the bacteria through the saliva of other animals or the same animal during licking as observed in the present case.

Very few reports are available regarding atypical form of actinobacillosis in buffaloes. The present report puts on record the diagnosis, surgical resection and management of an atypical actinobacillosis in a buffalo.

REFERENCES


