EPIDEMIOLOGICAL STATUS OF SURGICAL AFFECTIONS OF THE BUFFALO HORN AT HOSPITAL POPULATION AND AMBULATORY VILLAGES

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ABSTRACT

To know the epidemiological status of surgical affections of the horn in buffaloes, last six years' retrospective information on surgical conditions of horn were retrieved by scrutinizing the data bank of the College Hospital as well as three villages viz., Chikhodra, Bedva and Sarsa covered under Ambulatory Clinical Services of the college. Amongst various horn pathologies recorded, the overgrown horns / misshapen horns were observed to be the highest (49.6 per cent) followed by avulsion of the horn (29.3 per cent), horn injury (9.5 per cent), septic horn / maggotted wound (6.6 per cent), fracture of horn (3.7 per cent) and broken horn (1.2 per cent). The prevalence rate of the surgical affections of horn was higher in the buffaloes ageing more than five years. The avulsion of the horn was the major affection amongst the total observed horn pathologies in Surti buffaloes. The septic horn and/or maggotted wound of the horn was more prevalent in Mehsani buffaloes.

KEY WORDS: Buffaloes, Horn, Epidemiology

INTRODUCTION

The horns continued to remain as one of the important part of the body, which is prone to various affections like avulsion of horn, fracture of horn, overgrown horn, septic horn, fissures in horn and horn cancer (Sreenu and Kumar, 2006). Epidemiology helps in knowing the pattern of diseases in a given population and its effect on the overall health of the animals. Relevant data facilitates crucial decision-making with regards to planning effective treatment and disease control programmes.

MATERIALS AND METHODS

To know the epidemiological status of surgical affections of the horn in buffaloes, the information on breed (Surti / Mehsani / Jaffarabadi), sex (male / female), age (young < 5 years, adult > 5 years), Side (right / left), type and nature of pathology (avulsion / fracture / septic or maggotted wound / broken horn / horn injury / overgrown or misshapen horns / horn fissures / horn cancer) etc. pertaining to the cases presented at College Hospital as well as Ambulatory Clinics were collected and analyzed. In context to above, last six years' retrospective information as mentioned above were retrieved by scrutinizing the data bank of the College Hospital as well as three villages viz., Chikhodra, Bedva and Sarsa covered under Ambulatory Clinical Services of the college. Additionally, a controlled perspective survey study using owners' door-step approach was carried out in these three villages. These data were suitably analyzed and appropriately inferred to establish the clinical as well as epidemiological status of the surgical affections of horns in the buffaloes.

RESULTS AND DISCUSSION

A total of 43,294 new cases were registered during 2003 -2008 at the College Hospital and at the Ambulatory Clinic Centers out of these, 6,632 (15.3 per cent) cases were of buffaloes. Amongst the cases of the buffaloes registered, 1,535 (23.1 per cent) cases were of surgical in nature which included 77 (5 per cent) buffaloes having horn affections. Out of the 77 cases, 67 cases (87 per cent) were found in the buffaloes having more than 5 years of age whereas only 10 buffaloes (12.9 per cent) had the age less than 5 years. The incidence of the septic horn and/or maggotted wound of the horn remained highest (27.2 per cent) followed by the avulsion of horn with the prevalence of 25.9 per cent. Upon studying the data for breed wise prevalence, it was observed that the avulsion **o**f the horn was the major affection found in Surti buffaloes. In Mehsani buffaloes, the septic horn and/or maggotted wound horn was more prevalent with 33.3 per cent of **t**he

incidence. The incidence of right side, left side and both the sides of horn was 40.3 per cent, 53.3 per cent and 6.4 per cent, respectively. Amongst the buffaloes reported with the septic horn and/or the maggotted wound of the horn, 9 (42.8 per cent) were noticed at right side and remaining 12 (57.1 per cent) at the left horn .

During the perspective survey study carried out in the three ambulatory villages , the overgrown horns / misshapen horns were observed to be the highest (49.6 per cent) followed by avulsion of the horn (29.3 per cent). The avulsion of the horn was noticed to be the major affection of the horn in Surti buffaloes whereas; the Mehsani buffaloes had more incidence of the overgrown horns / misshapen horns. Amongst the three ambulatory villages, 106 (43.8 per cent) cases of the horn pathology were noticed in Chikhodra followed by Bedva and Sarsa with 31.8 and 24.4 per cent, respectively. Distinctly, no evidence of horn cancer could be noticed during either retrospective data analysis or while surveying the existing buffaloes population in the three selected villages).The incidence of right side, left side and both the sides of horn was 64 per cent, 90 per cent and 58 per cent, respectively. Amongst 120 cases of the overgrown horn / misshapen horn, 30 (25 per cent) were with right horn, 22 (18.3 per cent) were with left side horn and remaining 68 (56.7 per cent) animals showed bilateral involvement of the horns which imposed either compression on the dependent body parts precipitating undue pathological problems or caused managemental inconveniencies.

All the cases studied during the survey at the three ambulatory villages were only the female buffaloes and again the horns were found to be affected only in the animals aging more than five years. The observation is suggestive of a very distinct animal husbandry practices followed in the area wherein the livestock owners are not interested in rearing the male calves mainly due to the availability of the prompt artificial insemination services. None of the buffaloes, especially, the heifers as well as the younger buffaloes aging less than five years showed the horn pathology.

According to Kaul and Kalra (1973), the incidence of horn cancer per thousand animals was 1.58 in buffalo bullocks and 0.73 in buffaloes. Further, they stated that more than 90 per cent horn cancer was found to be in the age group of 5 to 10 years. Naik *et al*. in 1969 and Somvanshi in 1991 stated that the incidence of horn cancer was rare in buffaloes, however in the year 2000, Kumar and Thilagar had reported bilateral squamous cell carcinoma and so also in the very recent past i.e. in the year 2008, Salgar reported four Mehsani buffaloes suffered from horn cancer. No such evidence could be noticed during either retrospective data analysis or while surveying the existing buffalo population in the three selected villages. Sreenu and Kumar (2006) found that avulsion of the horn was seen more followed by fracture of the horn. Contrary to these observations, Salgar in 2008 found that fracture of the horn was seen more followed by avulsion and overgrown horn.

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