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Surgical and therapeutic management of yoke gall in buffalo bulls

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Abstract

Drought purpose bulls and bullocks are more prone to have an abscess termed as yoke gall. In the age group of 8-9 years, 5 buffalo bulls were brought for treatment of the yoke gall. They all were showing inflammation on the dorsal side of the neck for last 2.5 to 3 months. The clinical examination of the affected animals revealed that small sized, circular swelling about 5-7 cm in diameter present on the dorsal side of the neck in all the animals. Diagnosis was based on the co-relation of history and clinical examination the cases were diagnosed as yoke gall. In the affected animals the inflamed part was excised surgically taking precautions to prevent any type of contamination. Post-operative care comprised administration of broad-spectrum antibiotic, analgesic, anti-inflammatory, antihistaminic with multivitamins. Antiseptic dressing of suture line was performed with Povidone iodine solution (0.1%) was used for regular dressing of suture line and removal of skin sutures was done 13th day post-surgery. The treated animals showed complete clinical recovery with improved working capacity on surgical excision of the Yoke gall.

Keywords: Buffalo bull, surgical treatment, yoke gall

Introduction

In the buffalo bulls and bullocks used for drought purpose, an equipment yoke is carried on the dorsal side of neck. These bulls are used for carting on rough roads sometimes with extra heavy loads which causes persistent friction on upper side of neck. Due to friction the dorsal area of neck gets inflamed. This condition is termed as yoke gall, affecting skin and subcutaneous tissue of the neck (Venugopalan, 2002; Tyagi and Singh, 2006) [6, 5]. As per Majunath *et al.* (2011) [8] 6 classical forms of yoke gall have been reported viz., acute, subacute, chronic fibrosed, chronic suppurative (abscess), chronic ulcerative and mixed (miscellaneous). Major occurrence of yoke gall is reported in the age group of 9-12 years. The animals of lower and higher age group showed nearly half prevalence of yoke gall (Kale, 1997) [1]. Despite being commonest surgical affections in a bullock, yoke gall is the quite curable disease. Though yoke gall is a very common condition, few reports are regarding its treatment. Therefore, the present study was conducted with integrated medical and surgical treatment for management of yoke gall in buffalo bulls.

History and Clinical Observations

This study is regarding 5 buffalo bulls in the age group of 8-9 years were brought to Government Veterinary Hospital, Deoranian, Bareilly showing persistent swelling in dorsal area of neck for last 2.5 to 3 months. The swelled area was found hard on touching and it was non-fluctuating and immovable in the affected animals. The swelling was painful in all the animals (Fig. 1). All the affected animals showed loss of body condition with gradually reduced feed intake and could not work properly. Even after treatment with antibiotics, analgesic, anti-inflammatory and antihistaminic, the swelling could not be subsided. The clinical examination of the affected animals revealed that a small swelling, circular in shape of approximately 5-7 cm in diameter was observed on the dorsal side of the neck during clinical examination of all the animals (Fig. 2). The physiological parameters in all 5 bulls were present in normal range.

Diagnosis and Treatment

On the basis of history and its co-relation with clinical examination the presented cases were diagnosed as yoke gall. In affected animals, the inflamed part was excised surgically in standing position with taking all necessary precautions. The operative sites in all the animals were cleaned, shaved and disinfected with tincture iodine. All the surgical procedures were performed after achieving local anaesthesia with local infiltration of 2% lignocaine hydrochloride. An initial round incision was done approximately at 1.5-2 cm distance from the base for exposure of growth in all 5 buffalo bulls. After that the growth was completely incised up to the base of the root. After excision of the growth the wound was ligated with absorbable chromic catgut no. 2. During the complete removal of the growth, ligation of blood vessels was done at each and every step. The skin suture were applied in simple interrupted patterns with nylon followed by application of tincture benzoin,

Post-Operative Management

Post operative care was done in all the 5 animals with injection Chlorpheniramine maleate (Anistamin, Intas Pharmaceutical Ltd.) @ 0.5 mg/ Kg body weight, intramuscular, injection ceftriaxone (Intacef, Intas Pharmaceutical Ltd.) @ 10 mg / Kg body weight, Intramuscular, injection meloxicam (Melonex, Intas Pharmaceutical Ltd.) @ 0.5 mg / Kg body weight, intramuscular, injection B₁, B₆ and B₁₂ (Tribivet, Intas Pharmaceutical Ltd.) @ 10 ml, intramuscular for 5 days and injection Revici administer @ 10 ml, intramuscular only on

first day. Antiseptic dressing of suture line was performed with Povidone iodine solution (0.1%) was used for regular dressing of suture line and removal of skin sutures was done 13th day post-surgery (Fig. 3).

Results and Discussion

In this study, the recovery rate from yoke gall was 100 % (5/5) after surgical and medical therapy in buffalo bulls (Figure 4). The working capacity of all the 5 (100 %) buffalo bulls were improved post-surgery of the yoke gall. The incision line over the neck, without disturbing the capsule proved very beneficial. In order to restore the normal gait and early healing of the surgical wound it was advised to not to disturb the capsule during incision. However, to avoid the reoccurrence of growth it is better to remove the complete growth along with covering the capsule. All 5 (100%) buffalo bulls showed easy and painless movement along with improvement in health status. The present study showed close resemblance with the finding of Khodwe (2010) [7]. As per Majunath *et al.* (2011) [8] a stab incision was applied for surgical drainage in large and extensive acute yoke gall is more effective method of treatment as comparison to solely medical treatment. However, surgical excision was the best and 100% effective for chronic fibrosed, chronic ulcerative and chronic suppurative type.

From the finding of current study, we can come to the conclusion that integrated surgical and medical treatment was highly effective (100 %) for management of yoke gall in buffalo bulls.



Fig 1: Yoke gall in a buffalo bull



Fig 2: Ruptured yoke Gall in a Buffalo Bull



Fig 3: After surgical excision of yoke gall

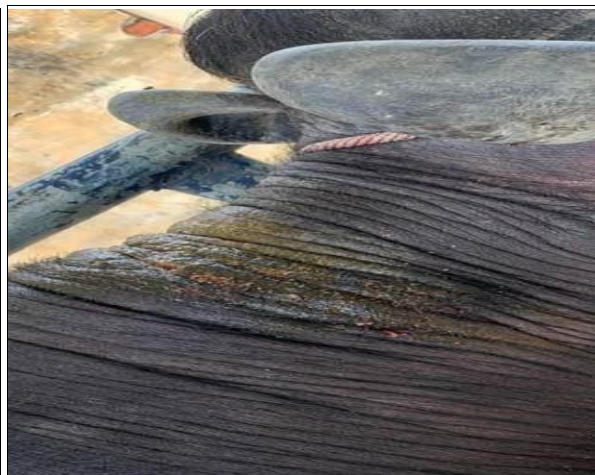


Fig 4: After surgical excision of the yoke gall (Recovered stage)

Conclusion

From the finding of current study, we can come to the conclusion that integrated surgical and medical treatment was highly effective (100%) for management of yoke gall in buffalo bulls.

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