

RETRIEVAL OF BINDING WIRE FROM THE PHARYNGEAL REGION IN A BUFFALO HEIFER

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ABSTRACT

A 3 years old buffalo heifer was presented to the Animal Rahat Solapur emergency response team with the symptoms of moderate salivation, scratching of neck against the tree, slight difficulty while eating and drinking water, suspended rumination, animal was dull and depressed for the last three days following ingestion of a metallic sharp foreign body. On clinical examination of the neck region revealed a penetrating metallic linear foreign body like object lodged in the pharyngeal region pointing outside. This foreign body (binding wire) was retrieved surgically under the Ketamine stun (combination of Inj. Xylazine Hydrochloride 0.020 mg/kg, Ketamine Hydrochloride 0.05 mg/kg and Butorphanol Tartrate 0.02 mg/kg) with local nerve block. Animal recovered uneventfully within five days.

Keywords: *Bubalus bubalis*, buffaloes, linear foreign body, pharyngeal region, ketamine stun

INTRODUCTION

Bovine's indiscriminate feeding habits is hazardous for them as ingestion and lodging of foreign bodies with in body tissue is common in bovines. Further buffaloes are

close to human habitat often swallow metallic objects such as nails and pieces of wires that have been carelessly left in their feeding areas by their owners. These metallic foreign bodies may lodge anywhere in the body and lead to various complications that differ according to the nature of the foreign body and its migration route. (Satbir *et al.*, 2014). Accidental ingestion of foreign body in bovines may prove to be of great economic loss due to its associated morbidity leading to loss of production and in some cases mortality as well. (Mekuanint *et al.*, 2017) Nutritional deficiencies and feeding management plays major role for predisposing of animals to suffer with metabolic disease conditions and foreign body syndrome which may sometimes be life threatening (Bhikane, 2013).

CASE HISTORY, DIAGNOSIS AND TREATMENT

A 3 years old buffalo heifer was presented to Animal Rahat Solapur emergency response team with the history of moderate salivation, scratching of neck against the tree, slight difficulty while eating and drinking water, suspended rumination, animal was dull and depressed for the last three days. The animal was making efforts, but finding

it difficult to swallow the feed and water properly. On clinical examination, it was observed that animal was feeling pain on application of pressure on pharyngeal region and extended the head and neck while deglutition. On close examination it revealed that a penetrating metallic linear foreign body like object was lodged in the pharyngeal region protruding outside beneath the skin which was visible (Figure 1 and 2). Vital parameters were within normal range.

The buffalo was restrained in humane way by using face halter and applying a long rope around the body to administer intravenous ketamine stun (combination of Xylazine Hydrochloride 0.02 mg/kg, Ketamine Hydrochloride 0.05 mg/kg and Butorphanol Tartrate 0.02 mg/kg) as per body weight of animal (Abrahamsen, 2008). Two minutes after the administration of ketamine stun, animal was calmed down completely and the jaw muscles were relaxed, area around the swelling was prepared aseptically by shaving, scrubbing by using povidone iodine and 2% Lignocaine Hydrochloride was injected locally in linear manner. Injection Phenylbutazone and Sodium salicylate 4.4 mg/kg and Injection Strepto-penicillin 10 mg/kg were administered prior to surgical intervention. Then a two-inch incision (Figure 3) was made on the protruding portion of foreign body through skin and extended, skin and musculature around the area was separated by blunt dissection. During separation of muscles a sharp binding wire was appeared. This wire was pulled out from the incision, but as it was embedded deeply in the muscles, so with a deep blunt dissection a 6 inches long (Figure 4) binding wire was removed. The region where the foreign body was lodged, was explored further with fingers which revealed no rupture or any other associated injury to the underlying structures. After removal of foreign

body, incision site was flushed with normal saline and the muscles and skin incision were sutured by using chromic catgut No.2 and silk suture material respectively. Post operatively animal was treated with nonsteroidal anti-inflammatory drugs (NSAIDs) and antibiotic for consecutive five days along with probiotics. After one week, skin sutures were removed and animal recovered uneventfully.

DISCUSSION

Satbir *et al.* (2020) reported presence of linear foreign body in the pharyngeal region of buffalo with comparable findings like salivation, dull, depressed and difficulty in ingesting the food was noted in present study. While retrieving of foreign body, deep sedation achieved with accurate dose of intravenous ketamine stun administration which made the restraining and the surgical procedure easier as compared to use of Xylazine Hydrochloride alone. Mann *et al.* (2013) informed clinical and radiographic diagnosis of two days old balling gun induced traumatic pharyngitis in cattle with equivalent findings like drooling of saliva which is also noted in present case. Shivaprakash (2011) has noticed pharyngo-oesophageal obstruction in a buffalo leading to severe respiratory distress. The foreign body was a hard and big rexin firmly stuck between pharynx and oesophagus just behind the inter-mandibular space and was not palpable through clinical examination. An emergency surgery was performed just behind the mandible in the midline and the foreign body was removed. Immediate relief from respiratory distress was seen. Though metallic foreign bodies lodged in upper gastrointestinal tract of bovine can be readily diagnosed through radiographs (Spouge *et al.*, 1990; Hunt *et al.*, 2004) but their retrieval



Figure 1. Foreign body visible from outside at Pharyngeal region.

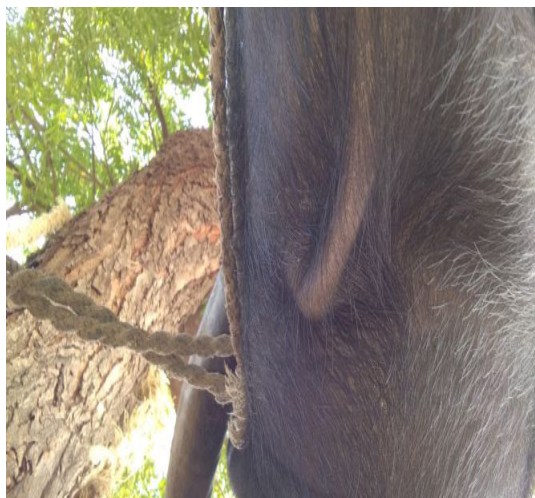


Figure 2. Foreign body visible from outside at Pharyngeal region.



Figure 3. While retrieving foreign body surgically.



Figure 4. Binding wire of 6 inches long was retrieved.

may sometimes be quite challenging. However, great care is required while retrieving foreign body from such area as the oesophagus can-not be brought or pulled to the surgical site as larynx and trachea lie ventrally and obstruct the surgical manipulation. In the present case, no invasive surgery was performed, only superficial incision was made went bluntly deep up to musculature and removed binding wire and animal recovered uneventfully within five days.

CONCLUSION

Successful removal of unusual penetrating metallic foreign body (binding wire) from pharyngeal region in a buffalo heifer surgically under ketamine stun is reported.

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