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Clinical Article

NON-SURGICAL RETRIEVAL OF METALLIC WIRE FROM THE CRANIAL OESOPHAGEAL REGION IN A BULLOCK

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SUMMARY

A four and half years old bullock was brought to the deparment with the history of swelling in the pharyngeal area, drooling of saliva and inability in swallowing feed since last three days. Lateral radiograph of neck region revealed presence of linear metalic wire like radiopagenicity caudal to larynx. The metallic wire was successfully retrieved in standing position under xylazine sedation and with the application of modified Haussmann mouth gag.

Keywords: Bullock, Metallic wire, Pharyngeal, Retrieval

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Traumatic pharyngitis due to lodgement of metallic foreign bodies like nails and wire pieces in pharynx occurs commonly in bovines, possibly due to their indiscriminate feeding habits (Singh and Nigam, 1981). 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 (Sharma *et al.*, 2014). Thus, early removal of these foreign bodies must be considered to reduce the serious complications (Adhikari *et al.*, 2007). The clinical signs are often not confirmatory for the diagnosis and should be differentiated from other surgical affections of the upper gastrointestinal tract of bovines (Singh *et al.*, 2020). The present paper reports the diagnosis and successful manual retrieval of metallic foreign body from cranial oesophageal region in a bullock.

A 4.5 years old bullock weighing 520 kg was brought to the Veterinary Clinical Complex, College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, Haryana with a history of swelling on the ventral aspect of pharyngeal area, drooling of saliva, suspended rumination and difficulty in swallowing feed and water since last three days. On physical palpation, the bullock felt pain in the ventral neck region caudal to the mandibular ramus with extension of head and neck. The physiological parameters were within the normal limits. Lateral radiograph of the neck region revealed approximately 8.0 cm long linear radio-opacity at the level of 3rd cervical vertebrae in the region of trachea and partially in the oesophagus. Mild gas was seen in the cervical oesophageal region close to the foreign body (Fig 1).

A trial for the manual retrieval of the foreign body was decided under sedation. The bullock was restrained in standing position in a travis. The bullock was sedated with inj. xylazine hydrochloride @ 0.03 mg/kg b.wt. and inj. butorphanol tartrate @ 0.02 mg/kg b.wt. intramuscularly. After 10 minutes of injection, modified Haussmann mouth gag was applied and bare hand of the surgeon was inserted into the oral cavity for exploration. The foreign body was found entangled in the rings of trachea through the oesophagus (Fig. 2). The retrieved foreign body measured approximately 8.0 cm in length. Post operatively, the bullock was treated with inj. Ceftriaxone Sodium 4g, inj.Meloxicam 15 ml, inj. Ascorvet 20 ml, once daily, intramuscularly for five days. The animal started normal feeding and showed uneventfully recovery by 5th day.

The clinical signs of excessive salivation, dullness, depression and difficulty in ingestion of food (Sharma *et al.*, 2020) and pain and discomfort in the neck region have been reported if linear foreign body is present in the pharyngeal region in buffalo (Jadhav *et al.*, 2021). Big and thick foreign bodies struck in this region, may also lead to respiratory distress (Shivaprakash, 2011), which was not observed in the present case. The metallic foreign bodies lodged in the neck or laryngeal region of bovine can be readily diagnosed with plain radiography (Hunt *et al.*, 2004). However, their retrieval is mostly challenging, due to the two dimensional view on radiograph and body of the animal being three dimensional. Also the ventrodorsal or dorsoventral radiograph is not very diagnostic in bovines, thus making it difficult to precise the exact location and side of foreign body. In the present case, manually retrieval of the metallic foreign body was performed through oral cavity and the bullock recovered uneventfully.

In conclusion, the radiographically visible metallic foreign body (wire) in the region of trachea, larynx or

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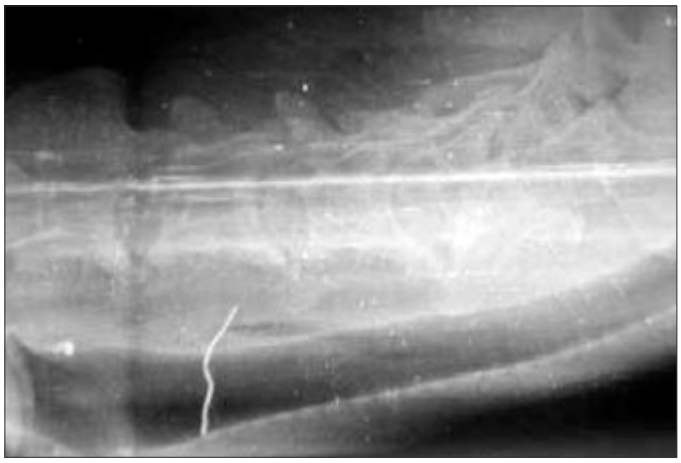

Fig. 1. Lateral radiograph showing metallic wire in trachea and oesophageal region at the level of C3 vertebrae.

Fig. 2. Photograph showing the retrieved metallic wire from the oesophageal region in a bullock

cranial oesophagus may be successfully removed under sedation in bullock.

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