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S Vigneshwara
Fourth Professional Year,
B.V.Sc & AH, Student VCRI,
Namakkal, TANUVAS, Chennai,
Tamil Nadu, India

R Nithyashree
Fourth Professional Year,
B.V.Sc & AH, Student VCRI,
Namakkal, TANUVAS, Chennai,
Tamil Nadu, India

P Sankar
Assistant Professor, Veterinary
Clinical Complex, VCRI,
Namakkal, TANUVAS, Chennai,
Tamil Nadu, India

A Kumaresan
Associate Professor, Department
of Veterinary Surgery and
Radiology, VCRI, Namakkal,
TANUVAS, Chennai, Tamil
Nadu, India

S Dharmaceelan
Professor and Head, Veterinary
Clinical Complex, VCRI,
Namakkal, TANUVAS, Chennai,
Tamil Nadu, India

Corresponding Author:
S Vigneshwara
Fourth Professional Year,
B.V.Sc & AH, Student VCRI,
Namakkal, TANUVAS, Chennai,
Tamil Nadu, India

Oesophagotomy in a jersey cross bred calf

S Vigneshwara, R Nithyashree, P Sankar, A Kumaresan and S Dharmaceelan

Abstract

A seven months old Jersey cross bred calf was presented to Veterinary Clinical Complex, Large animal Surgery unit, VC&RI, Namakkal, with the history of not taking feed and water for two days and swelling in the neck region. Based on the history, clinical signs, palpation, stomach tube passage, and Contrast Radiographic examination the condition was diagnosed as choke (intraluminal Oesophageal obstruction). Oesophagotomy was performed and dried coconut kernel was retrieved from the lumen and the animal was post operatively treated with intravenous fluid and antibiotic therapy and made an uneventful recovery within 15 days without any complications.

Keywords: Calf, choke, dried coconut kernel

Introduction

Oesophageal affections are more common in large animals (Jackie Haas, 2010). Obstruction in the lumen of the oesophagus commonly occurs in ruminants. The obstruction may be due to foreign objects such as vegetables, pieces of leather or rubber (Salunke *et al.*, 2003) [6], large feed stuffs, bolus, trichobezoars (Sankar *et al.* 2023) [5], phytobezoars (Tyagi and Singh, 1999) [8], coconut kernel (Madhava Rao *et al.*, 2009) [3] and palm kernel (Hari Krishna, 2011) [1]. Obstruction can be seen at the level of cranial aspect of cervical oesophagus or at the level of thoracic inlet or at the base of heart (Salunke *et al.*, 2003) [6]. Complete obstruction of oesophagus or choke is an emergency surgical condition of alimentary tract in ruminants (Smith, 2008). This case deals with an unusual occurrence of oesophageal obstruction in a Jersey cross bred calf by a piece of coconut kernel. It was diagnosed by contrast radiography and successfully retrieved through Oesophagotomy.

Case history and diagnosis

A seven months old Jersey cross bred calf was presented to Veterinary Clinical Complex, Large animal surgery unit with a history of not taking feed and water for two days and had a swelling in the cervical region of neck. The animal not able to take the feed and water but, tried to take the feed. On general examination the animal looked woody, dull and depressed, and emaciated and the temperature and pulse rate were normal. On clinical examination, swelling was noticed at the cervical part of neck region, pain evinced on palpation, hard and non fluctuating mass noticed on palpation, hypersalivation seen but no tympany noticed. To check the patency of oesophagus stomach tube was passed, but it was not passed beyond the cervical part of oesophagus which indicated there was an obstruction in the oesophagus. Diagnosis of this condition was based on the history, clinical signs, stomach tube intubation, and it was confirmed by radiographic examination. Plain radiography did not show any abnormality, whereas Barium contrast radiography revealed the exact location of the obstruction.

Treatment and discussion

As oesophageal obstruction is a serious condition, attempt was made to retrieve with the hand through oral cavity was unsuccessful. Animal was sedated with xylazine @ 0.05mg/kg and placed on right lateral recumbency (Fig-1). The surgical site was prepared aseptically. Lignocaine hydrochloride (2%) was infiltrated linearly around the surgical site. Longitudinal skin incision was made and oesophagus was identified between sternocephalicus muscle and trachea (Fig.2). After exposing the oesophagus stay sutures were applied and the operative field was packed with sterile gauze pieces to avoid contamination.

An incision was made on the oesophagus directly over the foreign body (Fig.3) and a dried coconut kernel of size 5 x 3 cm (Fig-4) was retrieved from the oesophagus and the site was flushed with normal saline. The cervical choke in ruminant has been reported on account of either leather or rubber piece (Patil *et al.*, 2014) [4] and trichobezoar in a calf (Sankar *et al.*, 2023) [5]. Oesophagus was closed by the knot-in-the-lumen technique (in-out out-in pattern) by using synthetic absorbable suture material (Vicryl) of size 2-0. Muscles and subcutaneous tissues were closed by simple continuous suture pattern using chromic catgut size no.1 and the skin was closed with horizontal mattress suture pattern by using sterile cotton thread. The calf was post operatively treated with Ceftriaxone @ 20 mg/kg, Tramadol @ 2mg/kg, and fluid therapy and fed with liquid diet from 4th day and semisolid diet from 6th day. The calf started to take normal feed from 10th day, made an uneventful recovery without any post-operative complications.



Fig 4: Dried coconut kernel of size 5 x 3 cm



Fig 1: Cervical oesophageal swelling- Calf



Fig 2: Oesophagotomy - Sternocleidomastoid muscle separation



Fig 3: Retrieved foreign body

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