



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2022; SP-11(6): 924-925
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www.thepharmajournal.com

Received: 13-04-2022

Accepted: 22-05-2022

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Cervical esophageal diverticulum in a Labrador retriever dog and its management

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Abstract

A one and half year old male Labrador retriever was presented to Veterinary Clinical Complex with a history of post-prandial regurgitation for past 6 months. Clinical examination revealed dyspnoea, odynophagia and retching. Hemato-biochemical analysis revealed leucocytosis, neutrophilia, high blood urea nitrogen, hypernatremia and hyperchloremia. Thoracic radiography revealed esophageal diverticulum. The case was treated with fluids, prokinetics and antibiotics. The case showed improvement with feed intake by upright feeding method.

Keywords: Esophageal diverticulum, dog, upright feeding

Introduction

Pets with esophageal disease are presented with complaint of regurgitation of food immediately after eating or shortly thereafter. Post-prandial regurgitation is common in patients with esophageal diverticula. Esophageal diverticulum is a pouch like dilatation of esophageal wall. Diverticula may be congenital or acquired and are of two types; pulsion and traction diverticula. Pulsion diverticula represent an outpouching of esophageal mucosa through a defect in muscular and adventitial layer of esophagus. Traction diverticula are generally acquired as a result of inflammation in thoracic cavity in close proximity to esophagus. This leads to formation of fibrous tissue, which then contracts pulling the esophageal wall outwards [1].

Case history and Observations

A one and half year old canine male Labrador retriever dog was presented to Small Animal Medicine Unit of Veterinary Clinical Complex, Tirunelveli with history of post-prandial regurgitation repeated at each meal for the past 6 months. Clinical examination revealed emaciated bodily condition (Fig 1) with congested mucous membrane. The animal had severe respiratory distress. Auscultation revealed inspiratory dyspnoea. Hemato-biochemical findings revealed elevated WBC count (24800/cu mm) and elevated mature Neutrophil count (86%). Serum biochemistry revealed elevated Blood Urea Nitrogen (53.98 mg/dL), elevated Triglycerides (175.0 mg/dL), other parameters were in normal range. Plain radiography of thorax revealed dilatation in the thoracic oesophageal region. Confirmatory diagnosis with contrast radiography with Iohexol (8%) revealed pouch-like structure in thoracic oesophageal region (Fig.2). Hence the case was diagnosed as oesophageal diverticulum.

Treatment and Discussion

The case was treated with polyionic fluids Inj. Dextrose normal saline @10ml/kg. B.wt I.V, Inj. Ringer's lactate @10ml/kg B.wt I.V, Prokinetic Inj. Metaclopramide @0.2mg/kg B.wt I.M, Inj. Ceftriaxone Tazobactam @15mg/kg B.wt and Inj. Chlorpheniramine maleate @0.2mg/kg IM for 3 consecutive days. The owner was advised to feed the pet by upright feeding method with gruel food in consistency for the next 15 days and reviewed after a month. The clinical condition was managed by reducing the frequent episodes of regurgitation by upright feeding technique.

Esophageal diverticulum is a pouch like dilatation of oesophageal wall ^[1]. In this case, the diverticulum was diagnosed from contrast radiography with iohexol (8%) medium to confirm the pouch like structure which confirmed the diagnosis of cranial thoracic esophageal diverticulum which was in accordance with Oliveira *et al.* who reported that contrast radiography is helpful in differentiating esophageal diverticulum from other soft tissue structures in thorax ^[2, 3]. The present case from the (fig.2) which is smaller in size. Hence the case was treated conservatively by feeding a liquid or semi-solid diet with the animal in an upright position ^[4]. In the present case, the nutritional management and feeding technique resolved the clinical condition which could be due to nerve mutation of esophageal formation which could be in concurrence with esophageal diverticulum ^[3].

In conclusion, the esophageal diverticulum rarely affects dogs of different ages and may occur in conjunction with megaesophagus. The conditions can be diagnosed readily using contrast radiography and the management can be tailored either by conservatory method or surgical exploration based on the size, severity and location of esophageal diverticulum.



Fig 1: Emaciated bodily condition



Fig 2: Contrast x-ray showing pouch like dilatation (Red arrow)

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