



ISSN: 2456-2912

VET 2024; SP-9(4): 85-87

© 2024 VET

[www.veterinarypaper.com](http://www.veterinarypaper.com)

Received: 16-05-2024

Accepted: 25-06-2024

**KK Ponnuswamy**

Department of Veterinary  
Clinical Medicine, Veterinary  
College and Research Institute,  
Tamil Nadu Veterinary and  
Animal Sciences University,  
Chennai, Tamil Nadu, India

**Atmakur Venkatesh**

Department of Veterinary  
Clinical Medicine, Veterinary  
College and Research Institute,  
Tamil Nadu Veterinary and  
Animal Sciences University,  
Chennai, Tamil Nadu, India

**K Sasikala**

Department of Veterinary  
Clinical Medicine, Veterinary  
College and Research Institute,  
Tamil Nadu Veterinary and  
Animal Sciences University,  
Chennai, Tamil Nadu, India

**K Mohanambal**

Department of Veterinary  
Clinical Medicine, Veterinary  
College and Research Institute,  
Tamil Nadu Veterinary and  
Animal Sciences University,  
Chennai, Tamil Nadu, India

**R Ravi**

Department of Veterinary  
Clinical Medicine, Veterinary  
College and Research Institute,  
Tamil Nadu Veterinary and  
Animal Sciences University,  
Chennai, Tamil Nadu, India

**D Sumathi**

Department of Veterinary  
Clinical Medicine, Veterinary  
College and Research Institute,  
Tamil Nadu Veterinary and  
Animal Sciences University,  
Chennai, Tamil Nadu, India

**Corresponding Author:**

**Atmakur Venkatesh**

Department of Veterinary  
Clinical Medicine, Veterinary  
College and Research Institute,  
Tamil Nadu Veterinary and  
Animal Sciences University,  
Chennai, Tamil Nadu, India

## Endoscopic diagnosis of congenital idiopathic megaesophagus in the Labrador retriever puppy: Case report

**KK Ponnuswamy, Atmakur Venkatesh, K Sasikala, K Mohanambal, R Ravi and D Sumathi**

### Abstract

A three month old Labrador Retriever pup was presented to the Small Animal Medicine unit, Veterinary Clinical Complex, Veterinary College and Research Institute Namakkal with a history of vomiting, hyporexia and lethargy. Haematobiochemical parameters were in normal range. Plain radiography and contrast radiographic examination on esophagus was performed using barium sulfate suspension, Esophagoscopy revealed uniform dilatation of the esophagus which was pronounced in caudal esophagus along with stagnation of food material. And the case was diagnosed as Congenital Idiopathic Megaesophagus. The dog was managed with feeding elevated in position, and maintained in the position for 20-30 min after feeding. The clinical signs were completely resolved within one month. In follow up examination, there was no evidence of the dilatation of the esophagus.

**Keywords:** Endoscopic diagnosis congenital idiopathic megaesophagus, labrador retriever puppy

### Introduction

Megaesophagus is defined as the dilation of the esophagus (Tams, 2003) [6], characterized by reduced or absence of esophageal motility, obstructing the normal passage of food. In young dogs, congenital megaesophagus can be inherited or result from developmental issues affecting the nerves that control the esophagus. Symptoms usually become noticeable when the affected puppy begins eating solid food (Saravanan *et al.*, 2010) [4]. Secondary megaesophagus, which is associated with other conditions such as myasthenia gravis, hypoadrenocorticism, dysautonomia, polyradiculoneuritis, hypothyroidism, polymyopathies, and esophageal cancer (Amell *et al.* 2013; Johnson *et al.* 2007) [1, 5]. Megaesophagus can occur in both dogs and cats, but it is more commonly found in dogs. Breeds that are genetically predisposed to this condition include Great Danes, Irish Setters, Newfoundlands, German Shepherds, Shar Peis, and Labrador Retrievers (Etienne, 2014) [3]. The most common sign of megaesophagus is the regurgitation of food and water (Manning *et al.*, 2016) [7]. Other clinical signs include weight loss, excessive salivation and gagging. If a neuromuscular disease is present the affected animal exhibits weakness, unsteadiness, difficulty in swallowing and breathing, and coughing spells. Aspiration of regurgitated material can lead to aspiration pneumonia, a common complication of megaesophagus (Tams, 2003) [6]. The most reported method of diagnosis of megaesophagus is the association of the complete history with the proper contrast thoracic radiographic and endoscopic examination in which the esophageal dilation can be better visualized. The objective of this study is the diagnosis, management of idiopathic megaesophagus and monitoring the outcome of treatment.

### Case history and clinical examination

A three month old Labrador Retriever pup was presented to the Small Animal Medicine unit, Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal with a history of vomiting, hyporexia and lethargy for the past one week. On physical examination the puppy had a normal temperature, heartbeat and respiration without any appreciable dehydration.

## Materials and Methods

Haematobiochemical values were normal. Plain thoracic radiography showed soft tissue opacity dorsal to the trachea and a contrast radiographic examination of esophagus was performed after administration 80ml of barium sulfate suspension orally in small amounts over a period 15 minutes. Uniform esophageal dilatation with retention of barium was observed in Contrast Radiography (Fig.1 and 2). The animal was anesthetized with Diazepam @ 0.5mg/kg – I/V, and Propofol @ 4mg/kg -I/V and esophagoscopy was performed. Esophagoscopy revealed a uniform dilatation of esophagus which was more pronounced in the caudal esophagus, pale pink mucous membrane, retention of food materials and intact lower esophageal sphincter (Fig.3). Based on these findings case was diagnosed as Congenital Idiopathic Megaesophagus.



**Fig 4:** Successful recovery of the animal



**Fig 1:** Right lateral view reveals the dilatation of the caudal esophagus



**Fig 2:** Left lateral view reveals the dilatation of the caudal esophagus



**Fig 3:** Esophagoscopy reveals dilatation of the distal esophagus along with distension of food material

## Treatment and Discussion

Megaesophagus is a functional disorder characterized by reduced peristalsis and widespread dilatation of the esophagus (Manning *et al.*, 2016) [7]. Treatment typically focuses on supportive care unless the esophageal dysfunction resolves or an underlying cause can be addressed. In the present study, the dog had congenital idiopathic megaesophagus. The treatment protocol for congenital idiopathic megaesophagus is primarily supportive, including providing food and water in elevated position to use gravity to aid swallowing. Conservative treatment instructions aim to reduce the chances of content impaction, sepsis, and/or disruption of the diverticulum (Oliveira *et al.*, 2004) [2]. Megaesophagus is generally considered a disease with a poor prognosis, particularly when complicated by aspiration pneumonia (Manning *et al.*, 2016) [7]. However, in our study, there were no complications of aspiration pneumonia. The dog was treated with Tab -prazosin 1mg/kg p/o SID before every meal. Owner was advised to follow the elevated feeding programme where the animal's body was elevated about 45 to 90 degree during feeding and maintained in the same position for about 15 minutes after feeding. The animal had no signs of aspiration pneumonia and the animal showed uneventful recovery after the one month of the treatment (Fig.4). Contrast radiography and Esophagoscopy are modern diagnostic tools helped for the early diagnosis and treatment of the megaesophagus in the puppy. Advised owner to feed the animal in the upright position for 15min.

## References

1. Arnell K, Hill S, Hart J, Richter K. Persistent regurgitation in four dogs with caudal esophageal neoplasia. *J Am Anim Hosp Assoc.* 2013;49(1):58-63.
2. Oliveira EC, Gaiga LH, Colomé LM, Stedile R, da Silva Mello FP, de Mesquita Martins J, Freire CD. Persistência Do Arcoaórticodireito Em Um Cão - Relato De Caso. *Rev FZVA.* 2004;11(1):174-180.
3. Ettinger SJ, Feldman EC. *Textbook of veterinary internal medicine: diseases of dogs and cats.* 6th ed. Philadelphia: WB Saunders Company; c2014. p. 1298-307.
4. Saravanan M, Sasikala V, Murugan M. Megaesophagus in dogs. *Indian Pet J Online J Canine Feline Exot Pets;* c2010;8-9.
5. Johnson BM, Mears EA, DeNovo RC. *Kirk's current veterinary therapy: canine megaesophagus.* 14<sup>th</sup> ed. St. Louis: Saunders Elsevier; c2009. p. 486-492.

6. Tams TR, editor. Diseases of the esophagus. In: Handbook of small animal gastroenterology. Philadelphia: WB Saunders; c2003.
7. Manning K, Birkenheuer AJ, Briley J, Montgomery SA, Harris J, Vanone SL, *et al.* Intermittent at-home suctioning of esophageal content for prevention of recurrent aspiration pneumonia in 4 dogs with megaesophagus. J Vet Intern Med. 2016;30(5):1715-1719.

**How to Cite This Article**

Ponnuswamy KK, Venkatesh A, Sasikala K, Mohanambal K, Ravi R, Sumathi D. Endoscopic diagnosis of congenital idiopathic megaesophagus in the Labrador retriever puppy: Case report. International Journal of Veterinary Sciences and Animal Husbandry. 2024;SP-9(4):85-87.

**Creative Commons (CC) License**

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.