

An Acquired Idiopathic Megaesophagus in Lioness

Sujatha K* and Srilatha Ch

Department of Veterinary Pathology, College of Veterinary Science, Sri Venkateswara Veterinary University, India

Abstract

A seventeen years old lioness with history of emaciation, anorexia and respiratory distress since several days, finally the animal was died suddenly. On postmortem examination the carcass was very poor in appearance and slight swelling was noticed at neck region. The cervical part of esophagus was enlarged nearly 3-4 times than normal. Histopathologically, esophagus revealed pink stained edema fluid, neutrophils and mononuclear cells infiltration and fibroblast proliferation was noticed in mucosa and sub mucosa. The tunica muscularis was hypertrophied. The present case etiology was unknown. Hence this case was confirmed as an idiopathic megaesophagus in lioness.

Keywords: Lioness; Megaesophagus; Pathology; Idiopathic origin

Introduction

Megaesophagus or esophageal ectasia is dilation of the esophagus because of insufficient or uncoordinated peristalsis in the mid and cervical esophagus and it has been described in dogs, cats, cows [1]. This syndrome might occur as a congenital idiopathic disorder (Uncommon) or it might manifested in adult animals as in idiopathic (Common) or acquired lesion. The pathogenesis of acquired is the result of failure of relaxation of the distal esophageal cardiac sphincter of the stomach or idiopathic in origin [1,2]. The literature regarding megaesophagus in wild carnivores are lacking. Hence present case describes an acquired idiopathic megaesophagus in lioness.

Materials and Methods

A seventeen years lioness was died in SV Zoo Park, Tirupati and was submitted to the Department of Veterinary Pathology, College of Veterinary Science, Tirupati for post mortem examination. A detailed postmortem examination was carried out and representative tissue pieces from esophagus were collected in 10% formalin for histopathology examination and were processed routinely and stained with Hematoxyline and Eosin.

Result and Discussion

Clinically, the lioness was emaciated, anorectic with respiratory distress since several days. Finally the animal was died suddenly. On necropsy examination the carcass was very poor and slight swelling at neck region (Figure 1). The cervical part of esophagus was enlarged nearly 3-4 times than normal. Thoracic and abdominal cavity contains



Figure 1: Note emaciated carcass with slight enlargement of neck region.



Figure 2: Note wide, flaccid and thickened esophagus with focal purulent lesion in esophagus.

clear fluid (approximately 3 Liters). The lungs were collapsed. On cutsection of the cervical esophagus revealed wide, flaccid and thickened with edematous and a focal purulent lesion was also noticed in the mucosa (Figure 2). The liver and kidneys were congested. The stomach was congested, thickened and empty intestines. The brain was congested. The similar gross observations were made by Braun et al. [3] and Hoenig et al. [4].

Microscopically esophagus revealed pink stained edema fluid, neutrophils and mononuclear infiltration and fibroblast proliferation in mucosal and submucosal layers. Dilated lymphatics in submucosa were also noticed. The tunica muscularis was hypertrophied. These findings were gain the support from the Sons et al. [5], Braun et al. [3] and Purulent esophagitis was reported by Hoenig et al. [4] due to consistent with secondary reaction with static ingesta. In the present case purulent lesion was noticed because of local reaction.

***Corresponding author:** Sujatha K, Department of Veterinary Pathology, College of Veterinary Science, Sri Venkateswara Veterinary University, India, Tel: 9440-973-609; E-mail: karamalasujatha@gmail.com

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Megaesophagus occurs sporadically in animals and has been reported in goat, cattle, horse, cat and dog and has been reported in association with pharyngeal trauma and resultant involvement of the vagus, as well as hiatal hernia [6]. The underlying pathophysiological mechanism for acquired idiopathic megaesophagus is unknown. The idiopathic disorder is more frequently recognized in cats and is attributed to degenerative lesions involving autonomic ganglia that affect esophageal function [6]. The present case etiology was unknown; hence this case was idiopathic origin.

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