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Esophageal foreign body obstruction in a 2 year old Caucasian bitch

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Abstract

Lodgment of foreign bodies in the esophagus of dogs has been on the increase in recent times with bones accounting for majority of the cases due to their nutritional habit of being canivores. Affected dogs often show various signs of discomfort culminating to anorexia and going off fed due to difficulty in swallowing. Early diagnosis and removal of foreign body is key to survival of the affected dogs, given that a delay in removal could result in complications that could ultimately result in the death of the dogs. Ensuring that the surroundings of dogs are clear of objects that are likely to cause esophageal foreign body obstruction, and crushing all bones and fish spine before adding them to dog feed, will reduce incidences of obstruction of the esophagus by foreign bodies in dogs.

Keywords: Bones, dogs, foreign bodies, esophageal obstruction

Introduction

Obstruction of the esophagus in dogs by foreign bodies is a common condition ^[1, 2, 3] which is on the increase in makurdi. Although death is uncommon in canine esophageal foreign body obstruction, there is great discomfort to the dog and the treatment outcome is influenced by the type of treatment employed in the removal of the foreign body ^[4]. Lodgment of foreign materials within the esophageal lumen can result in complications such as ulceration and esophagitis ^[5], esophageal perforation, pneumothorax, pneumomediastinum and aortic perforation ^[6].

Commonly ingested foreign bodies in dogs include bones, raw hide, toys and balls, greenies, fish hooks, coins, towels, socks, underwear, plastic and nylon ^[7, 8, 9]. Bones are the most common esophageal foreign bodies that have been reported in dogs probably because of their feeding habit and nutritional behavior as canivores ^[10].

Common clinical signs associated with esophageal foreign body obstruction include retching, regurgitation of feed and water, ptyalism, anorexia, restlessness and cervical pain ^[4, 9].

Case Report

A 2 year old gray Caucasian bitch was presented to the Small Animal Clinic of the Veterinary Teaching Hospital (VTH), Federal University of Agriculture Makurdi, on the 3rd of November, 2017 with the chief complaint of anorexia, general weakness, sporadic cough and request for deworming (Fig. 1). History revealed that the dog was used for security and has whelped twice. All the vaccinations were up to date.

The results of the physical examinations are presented in table 1. The following abnormal findings were observed; bilateral serous ocular discharges, mild tick infestation, rough hair coat, coughing and weight loss. A tentative diagnosis of helminthosis and piroplasmosis was drawn out. Blood and fecal samples were collected and sent to the clinical pathology and parasitology laboratory for haematology and fecal analysis respectively. The dog was treated with Ivermectin 0.2 mg/kg body weight, prazisasam® 1 tab/ 10 kg body weight which comprises of (febendazole 500 mg, praziquantel 500 mg, Pyrantel 144 mg) orally and vitamin B complex injection at 1 mL/10 kg body weight intramuscularly. The client was asked to represent the dog the following day, pending the outcome of the laboratory test and to employ the services of the VTH to spray the compound against ticks.

Haematology results are shown in table 2. Haemoparasite screening revealed Babesia spp.

(+) in > 100 fields viewed. Fecal analysis revealed ova of *Ancylostoma caninum* (+++). Thus the confirmatory diagnosis was Babesiosis and Ancylostomiasis.

On day 2 of the representation, the physical examination observations are presented in table 1. Clinical observations include the followings; hypersalivation, wheezing, gagging of mouth, foul smelling odour from the mouth, panting, abdominal breathing, restlessness, reaction to pain at the point of the neck during restraint. Attempt to open the mouth of the bitch revealed a whitish solid mass below the base of the tongue. Further cross examination of the client revealed that the bitch was fed with feed containing bones two days prior to manifestation of the clinical signs. Based on physical examination, a diagnosis of foreign body lodgment in the oropharynx was made (Fig. 2)

Table 1: Clinical observation of dog

Parameters	Observation				Normal range
	Day 1	Day 2	Day 3	Day 4	
Weight (Kg)	17	17	17	17	-
Temperature (°C)	39.4	39.9	37.6	39.4	38.5-39.5
Pulse rate (beats/min)	86	150	92	100	90 - 120
Heart rate (beats/min)	88	152	94	104	90 - 120
Resp. rate (cycle/min)	38	50	32	30	15 - 30
Mucous membrane	pink	pink	pink	pink	pink

Table 2: Haematology results

Parameters	Patients value	Normal range ^[11]
Haemoglobin (g/dL)	15.6	12-19
Haematocrit (PCV) (%)	47	35-57
RBC (X10 ¹² /L)	7.8	5-7.9
MCV (fL)	60	66-77
MCH (pg)	20	21-26.6
MCHC (g/dL)	33.1	32-36.3
RDW (%)	-	11.5-14.5
Thrombocytes (X10 ² /L)	-	211-621
WBC (X10 ⁹ /L)	23.2	5-14.1
Neutrophils (mature) (X10 ⁹ /L)	53	2.9-12 (58-85%)
Lymphocytes (X10 ⁹ /L)	46	0.4-2.9 (8-21%)
Monocytes (X10 ⁹ /L)	-	0.1-1.4 (2-10%)
Eosinophils (X10 ⁹ /L)	1	0 - 1.3 (0-9%)



Fig 1: dog on presentation



Fig 2: dog on sedation



Fig 3: length of bone



Fig 4: width of bone

The treatment plan were as follows; surgical removal of foreign body, treatment of haemoparasite and prevention of secondary bacterial infection. The bitch was premedicated with atropine sulphate (0.05 mg/kg i.v) and sedated with xylazine (0.5 mg/kg i.v). Following sedation, the bitch was placed on sternal Recumbency and restrained properly. The mouth was opened using gauze and a drip line to suspend the

upper and lower jaw (Fig. 2). The foreign body was pulled out after displacement using a forceps The foreign body was a triangular shaped bone weighing 11.34 g, 5.4 cm wide at the base and 5.8 cm in length (Fig. 3 and 4). Excessive saliva and blood was cleaned from the oral cavity of the dog using sterile gauze sponges. The dog was treated with Oxytetracycline 10 mg/kg body weight i.m sid x 3/7, diclofenac sodium 0.5

mg/kg body weight im sid x 3/7 and 5% dextrose saline at 5% dehydration (350 mL).

The owner was asked to present the dog for follow up treatment. He was advised to feed the bitch on bland diet and to monitor the bitch for any sign of respiratory distress, swelling of the throat and dysphagia. He was also advised to crush bones before feeding them to the bitch. The result of physical examination on presentation on day 3 and 4 is shown in table 1. The respiratory rate decreased, less pain was elicited on palpation of the oropharynx and the dog resumed barking and was reported to have started eating well. The client was advised to report any other abnormal findings, ensure regular ectoparasite treatment of the dog and ensure routine deworming.

Discussions

Most domestic animals select their food carefully except in diseases such as rabies and other nutritional deficiencies that can result to pica (The habit of ingesting materials other than normal feed) which is a common cause of foreign body obstruction in other domestic animal [12]. In dogs, bones are an integral part of their food because they are carnivores.

It has been reported that bones are the most common cause of esophageal foreign body obstruction in dogs [10]. This is in agreement with our present report whereby the bone was lodged in the oropharynx. Dogs are carnivores, therefore they eat flesh and like breaking bones. These bones when they are not properly crushed either by the owner when processing, or the dog itself predisposes them to obstruction and or other injuries. Almost all dog owners feed their dogs with bones without crushing them, thereby resulting in esophageal foreign body obstruction.

Clinical signs associated with esophageal foreign body obstruction includes retching, regurgitation of feed and water, ptialism, anorexia, restlessness and pain at the cervical region during physical examination [9]. The above clinical signs are in agreement with the findings we observed following the presentation of the dog to our clinic.

Diagnosis of esophageal foreign body obstruction can be made via physical examination, radiography and ultrasonography. Objects can be removed endoscopically or surgically [13, 14]. In the present report, the diagnosis was made via physical examination and the object removed using forceps. The diagnosis was made on the second of day of representation of the bitch because the clinical signs on the first day of presentation did not point to esophageal foreign body obstruction.

Lodgment of objects in the esophagus can result in complications such as ulceration and esophagitis, desophageal perforation, pneumothorax, Pneumomediastinum and aortic perforation [6, 15]. All esophageal foreign bodies are to be treated as emergency cases, especially foreign bodies that have sharp point, since delay can result in increased risk of esophageal perforation [2]. The bone that was removed from the mouth of the bitch in the present case was almost triangular in shape with sharp points and relatively large in size. Although there was no complication recorded as the dog resumed eating and barking on day 4 of presentation. This was probably due to early presentation.

Conclusions

We find dogs eating things they should not eat even with the best effort as dog owners. We however recommend that our surroundings should be kept free from objects that are likely causes of esophageal foreign body obstruction. In the area of

feeding, we recommend that bones and fish spine should be crushed before adding them to dog feed.

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