RADIOGRAPHIC AND ENDOSCOPIC EVALUATION OF ALIMENTARY TRACT FOREIGN BODIES AND THEIR SURGICAL CORRECTIONS IN SMALL ANIMALS

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ABSTRACT

Twelve cases of alimentary tract obstructions were diagnosed either by survey radiography or endoscopy in small animals. Different surgeries viz., cervical oesophagotomy, thoracic oesophagotomy, gastrotomy and enterotomy were performed. Out of the 12 animals ten recovered uneventfully.Whereas, two animals died which were subjected to thoracotomy due to oesophageal leakage and pleurisy . Different foreign bodies causing alimentary tract obstructions were bone pieces, stones, nipple of feeding bottle, sewing needle, safety pin and cork of a bottle.

KEY WORDS: Foreign body, Alimentary tract , Endoscopy, Radiography,

INTRODUCTION

The gastrointestinal foreign bodies are the common causes of obstructions in canines (Pierson *et al.,* 1966; Rendano *et al.,* 1988 and Janardanan, 1991). The foreign body in the form of bone piece has been reported by several workers (Houltan *et.al.,* 1985; Sullivan and Millller, 1985; Mantri *et al*., 1992; Ashok kumar and Rishi Tayal, 1994). The present article reports various types of unusual foreign bodies in the alimentary tract of canines and felines.

MATERIALS AND METHODS

Twelve clinical cases (eleven dogs and one cat) with foreign body obstructions at various levels of alimentary tract were recorded with the help of survey radiography and endoscopy.In the present study, survey radiography and endoscopy were used for the diagnosis of foreign bodies and appropriate surgical corrections were undertaken as per the locations of foreign bodies. The cases presented to TVC Complex,Bidar and Madras Veterinary College are included in the study. The details are summarized in the Table.

RESULTS AND DISCUSSION

The present study revealed that bone pieces were the common cause of oesophageal obstruction (6 cases). Stones and glazed tiles were the causes of gastric foreign bodies, however, intestine had varying types of foreign bodies. The causes of intestinal obstruction due to nipple of feeding bottle, safety pin, sewing needle and cork of a bottle were noticed .

The oesophageal foreign bodies were diagnosed by both survey radiography and endoscopy. However, for intestinal foreign body diagnosis only survey radiography was useful. Although endoscopy is useful for gastric foreign bodies it was not used in present study as the foreign bodies were radio-opaque and cases were long standing with the history of chronic vomition .Tweleve cases of alimentary tract obstructions were treated by different surgeries as follows.

Cervical oesophagotomy (1 case), thoracic oesophagotomy (5 cases), gastrotomy (2 cases) and enterotomy (4 cases). Out of total 12 cases 10 cases recovered successfully.

Two animals died after thoracotomy,where oesophageal rupture and obstructions were located near to the base of the heart. These animals developed intra-operative cardiac arrhythmias and had pleurisy along with oesophageal leakage.

Menon (1953) reported very high success rate in canine thoracotomy , however ,our results differed from that observation due to leakage in the oesophagus and pleurisy resulting in mortality .

Table : Radiography and Endoscopy of experimental dogs

S. No.	Breed	Age	Location of foreign body	Type of foreign body	Diagnostic method used	Surgical treatment
1.	Dobermann	4 yrs	Cervical oesophagus	Triangular bone piece	Survey radiography	Cervical oesophagotomy
2.	Pomeranian	3 yrs	Thoracic oesophagus	Irregular shaped bone piece	Endoscopy	Thoracic oesophagotomy
3.	Labrador	2½ yrs.	Thoracic oesophagus	Approximately spherical bone piece	Endoscopy	Thoracic oesophagotomy
4.	Dobermann	3 yrs.	Thoracic oesophagus	Approximately quadrilateral chicken sternum bone piece	Survey radiography	Thoracic oesophagotomy
5.	Pomeranian	7 months	Base of the heart	Rectangular bone piece	Survey radiography	Thoracic oesophagotomy
6.	Labrador	1½ year	Caudal to base of heart	Approximately hexagonal bone piece	Survey radiography	Thoracic oesophagotomy
7.	Non Descript Dog	2 years	Stomach	16 small black stones	Survey radiography	Gastrotomy
8.	Dobermann	1½ years	Stomach	3 pieces of glazed tiles	Survey radiography	Gastrotomy
9.	Dobermann	3 years	Intestine	Nipple of feeding bottle	Survey radiography	Enterotomy
10.	Dobermann	4 years	Intestine	Sewing needle	Survey radiography	Enterotmy
11.	Non Descript (dog)	3 years	Intestine	Safety pin	Survey radiography	Enterotomy
12.	Non Descript (cat)	1½ years	Intestine	Cork of a bottle	Survey radiography	Enterotomy

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