

GASTROINTESTINAL OBSTRUCTION IN DOGS AT THE VETERINARY CLINIC, KABETE.

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Summary

A study of postmortem examination reports of dog conditions diagnosed at the faculty of Veterinary Medicine, University of Nairobi, covering 16 years (1976-1991) revealed that intussusception was the most important cause of gastrointestinal (GI) obstruction in dogs.

Out of 580 dog carcasses examined during this period, GI obstructive conditions contributed to 63 (10.9%) of the cases and of these, 32 cases (50.8%) had intussusception. Other causes of GI obstruction were; gastric-dilatation volvulus - 16 cases (25.4%), torsion or volvulus of small intestines - 7 cases (11.1%), Diaphragmatic hernia 3 cases (4.8%), Pyloric stenosis, congenital obstruction at the ceco-colic junction and intestinal strangulation contributed one case (1.6%) each. Two cases could not be identified and these presumably did not originate from the clinic. The German Shepherd dog (GSD) breed and its crosses was affected by most GI obstructive conditions diagnosed. Intussusception was more common in young dogs than in adults but gastric-dilatation-volvulus was diagnosed only in dogs older than two and a half years. The history of the cases was mainly that of vomiting, inappetance and depression.

Introduction

Intussusception is an invagination or telescoping of a contracted segment of bowel into a dilated retrograde segment of the same (Kipnis, 1977; Bojrab, 1983). The condition occurs in both domestic animals and man and is more common in young animals than in adults (Rowland, *et al.* 1978; Ettinger, 1983; Bojrab, 1983; Runyon, 1984; Ford *et al.*, 1990). Among dogs, large breeds especially the GSD are the most susceptible (Kipnis, 1977; Rowland *et al.* 1978). Intussusception is a common clinical entity and although most portions of the intestinal tract can be affected, ileo-cecal and ileo-colic intussusceptions are considered to be the most common forms in dogs and cats (Kipnis, 1977; Runyon, 1984). Most of these conditions occur at a single site but occasionally an intussusception occurs at multiple sites (Bojrab, 1983; Okewole *et al.*, 1989).

In dogs and young children, many cases of intestinal intussusception appear to be idiopathic (Kipnis, 1977). However, abnormal peristalsis due to foreign bodies, parasitism, severe enteritis, neoplasia, certain drugs and previous intestinal surgery have been implicated as predisposing factors (Bojrab, 1983; Okewole *et al.*, 1989).

Vomiting, anorexia and depression are the most consistent clinical signs accompanying intussusception. Other signs may be dehydration, abdominal pain and diarrhoea. A "sausage-like" mass in ventral abdomen is usually palpable.

Despite the fact that intussusception is a life threatening condition to dogs and other animals, its proportion in relation to other GI obstructive conditions in this country have not been studied. This retrospective study was carried out to identify the incidence of intussusception as a cause of gastrointestinal obstruction in dogs.

Materials and methods

Postmortem examination recorded of all dog conditions diagnosed at the Faculty of Veterinary Medicine, University of Nairobi, at Kabete during the period 1976-1991 were used. In addition, small animal clinic case records were used to facilitate proper identification of the cases. Eight cases did not originate from the clinic.

Results

The results of the study are summarized in Table 1. Out of 580 cases examined, GI obstructions were found in 63 (10.9%) carcasses. Intussusceptions of different forms were diagnosed in 32 of these carcasses representing 50.8% of all GI obstructive conditions. Other forms of GI obstruction were: gastric dilatation-volvulus - 16 cases (24.4%), torsion or volvulus of small intestines - 7 cases (11.1%), diaphragmatic hernia - 3 cases (4.8%) and foreign bodies - 2 cases (3.2%). Pyloric stenosis, congenital obstruction at the ceco-colic junction and intestinal strangulation contributed 1 case (1.6%) each.

Discussion

The study revealed that intussusception is more common in young dogs than in old dogs. This has already been reported by several workers (Rowland *et al.*, 1978; Bojrab, 1983; Tunyon, 1984; Ford *et al.*, 1990). Furthermore, it has been found that the German Shepherd and its crosses is the most commonly affected breed. This supports earlier reports by Kipnis (1977) and Rowland (1978).

In this study, ileo-cecal intussusception was the most common (9 cases), this supports the observations of Kipnis, 1977 and Runyon, 1984. This was followed by ileo-ileal (8 cases), ileo-colic (7 cases) and other forms (8 cases).

Double intussusception was reported for the first time by Okewole *et al.* (1990). A single case of double intussusception (Jejuno-ileal and ileo-colic) was found in one adult German Shepherd cross male dog in this study. Almost all the intussusception cases recorded had history of vomiting, anorexia and depression and those that did not die suddenly had dehydration and bloody diarrhoea. Three cases had prolapsed through the rectum. Three other cases were associated with parvo virus infection, two with severe parasitism while two others had foreign bodies. These findings confirmed the observation of other workers that abnormal peristalsis and or tenesmus due to foreign bodies, parasitism, severe enteritis among other agents predispose dogs to intussusception (Bojrab, 1984; Okewole *et al.*, 1989).

In the light of this study, it can be concluded that intussusception is the most common cause of GI obstruction in dogs. Consequently it is suggested that dog patients with history of vomiting, inappetance and depression should be thoroughly examined for this condition.

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Table 1: Conditions causing gastrointestinal obstruction in dogs over the period 1976-1991

Condition	Associated Ages		Associated breeds		
	Total cases	Young <1yr.	Adult > 1yr	CSD and Crosses	Other Breed
1. Intussusception	32	25	7	21	6
2. Gastric-dilatation-volvulus	16	0	16	10	5
3. Torsion or volvulus (small intestine)	7	2	5	4	1
4. Diaphragmatic hernia	3	2	1	1	0
5. Foreign bodies	2	1	1	2	0
6. Other causes	3	1	2	2	1
Total	63	31	32	40	13

10 dogs could not be identified.