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Short Communication

PROLAPSE OF INTUSSUSCEPTION IN A PUP —A CASE REPORT

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Three months old crossbred German shepherd female pup was presented with the chief complaint of repeated rectal prolapse. The animal was treated twice by local veterinarian but with no success, the animal was examined. A probe was passed between rectal mass and anus. It passed thoroughly and it was diagnosed as an intussusception which was prolapsed through the rectum. Animal was stabilized with dextrose normal saline solution. Animal was given antibiotic ceftriaxone and meloxicam preoperatively. Atropine was given preoperatively subcutaneously. Animal was operated after giving general anesthesia induced with diazepam and ketamine combination and maintained by ketamine, and the intussusception of intestines were corrected after resection of devitalized part and anastomosis was done using cushing pattern with polyglycolic acid 2-0 suture material. After 10th day skin sutures were removed and animal recovered uneventfully.

Key words : Intussusception, General anesthesia, Anastomosis, Diazepam, Ketamine.

The intussusception is an invagination of a portion of the gastrointestinal tract (intussusceptum) into the lumen of an adjoining segment (intussuscepiens) (Lewis and Ellison, 1987). Intestinal telescoping and intestinal invagination are synonymous with intussusception (Fossum *et al*., 2002). Excessive peristaltic motility forces a segment of the bowel inside the segment just below it, as the smaller tube of telescope slides into the slightly larger tube just ahead of it (Byrne *et. al.,* 2005). Intussusception is classified according to the location like enterocolic (ileocolic), caecocolic, enteroenteric, duodenogastric and gastroesophageal. It is also classified as high (proximal to the jejunum) and low (distal to the duodenum) intussusception (Dixon, 2004). The most common type of intussusception in dogs was found to be the jejunojejnal and ileocolic (Fossum *et al*., 2002). The present case presents the prolapsed intussusception through the rectum in a pup and its management.

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A three month's old cross breed German shepherd female pup 3.8 kg body weight was presented with the history of prolapse of the mass through the rectum. As per the owner, the animal had severe diarrhea few days before. A mass from anus came out a day before yesterday and since then animal didn't defecated. The animal was treated twice by the local veterinarian by inserting the mass back into the rectum and applied purse string sutures around anal opening. On clinical examination of pup, the animal was moderately dehydrated, weak with subnormal temperature; respiratory rate and pulse were moderately elevated. The mass was washed with normal saline and abdominal palpation was done. On abdominal palpation nothing abnormal was found. The mass was about 4 inch long and was black colored and was traumatized (Fig. No. 1). A forcep was inserted between the prolapsed mass and anus and it passed easily more than 8 cm. It was diagnosed as intussusception of intestines and the animal was prepared for surgical repair. DNS @ 40 ml/kg b wt per hour was infused before surgery and during surgery Ringers lactate @ 20 ml/kg b wt. per hour was administered. Antibiotic Ceftriaxone 100 mg IV and meloxicam 0.2 mL IV was also administered. Surgical site was prepared at mid ventral. Pre-anesthetics, atropine @ 0.2 mg/kg b wt. subcutaneously was given and after 15 minutes general anesthesia was given with combination of diazepam @ 0.25 mg /kg b wt with ketamine @ 5 mg/kg b wt as a bolus intravenously was administered. It was maintained with intermittent dose of the same combination @ 1/3rd. Surgical incision was done mid ventral incision on linea alba. The mass was pushed through the rectum by an assistant and surgeon pulled the mass through the abdominal cavity (Fig. 2). The intussusception mass was located at ileocolic part of intestine. Gentle traction was applied on both sides of intussusception so to reduce the mass and intussusception was corrected. But the part which was prolapsed was very much lacerated and it was decided to resect it (Fig. 3). Anastomosis was done end to end pattern (Fig. 4). Two layer suturing was done, first modified continuous suturing pattern was done and then continuous cushing pattern was used with 3-0 polyglycolic acid material. Luminal disparity was corrected by cutting smaller end at an angle thus creating the lumen of large diameter. Abdominal cavity was sutured with standard pattern by interrupted horizontal pattern with polyglycolic acid number one. Post- operatively antibiotics ceftraixone 100 mg for five day was injected intravenously BID and meloxicam @0.2 mg/kg b wt intramuscular OD for three days. Owner was advised to give only fluid diet for first few days and then soft diet for next week. Animal defecated normally after 24 hours of surgery. Skin sutures were removed after 10 days and animal recovered uneventfully.

Intussusception is the invagination of one portion of the gastrointestinal tract (the intussusceptum) into the lumen of an adjoining segment (the intussuscipiens). Affected

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Prolapse of intussusception in a pup

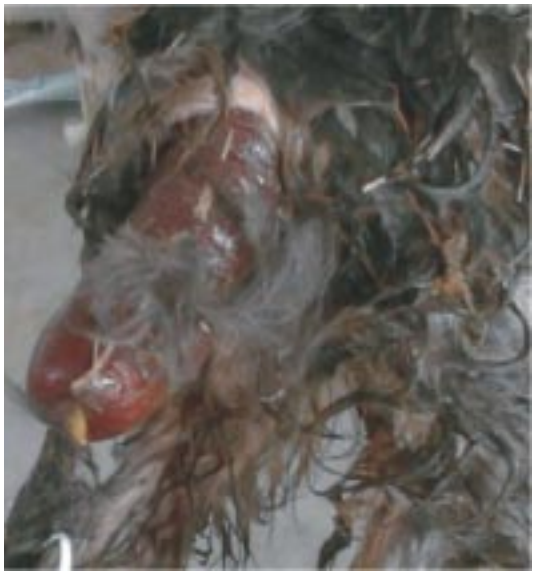

Fig.1. Rectal Prolapse of Intussusception part

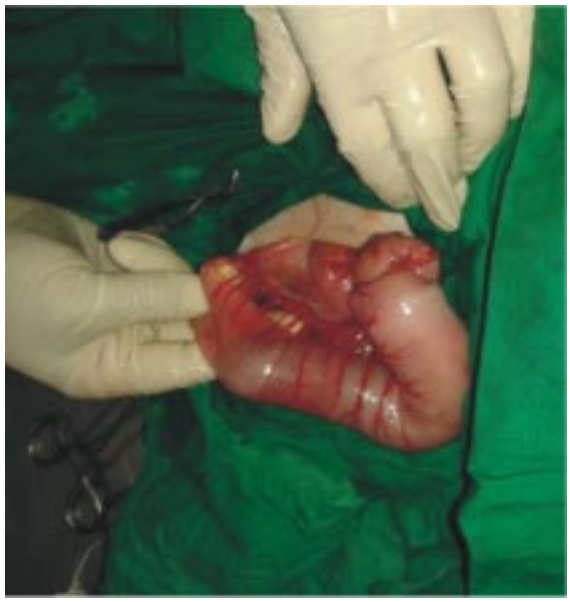

Fig. 2. Intussusception part through abdominal cavity

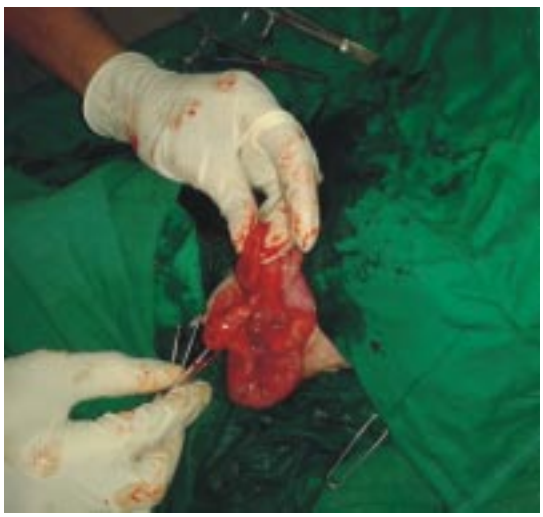

Fig. 3. Two ends of intestines

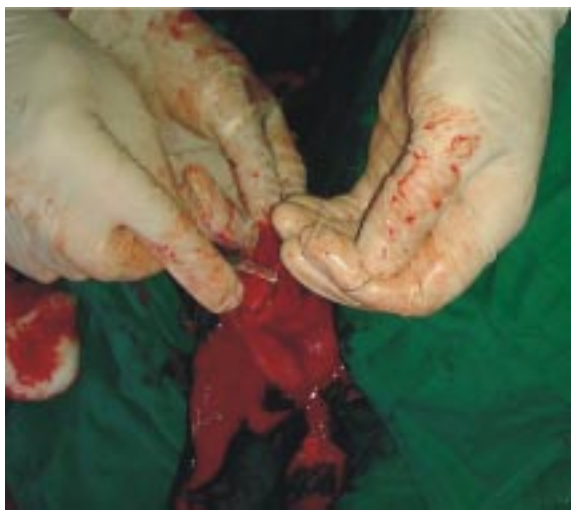

Fig. 4 . End to end anastomosis of intestinal ends

animals are often younger than 1 year of age. Gastrointestinal intussusception is more prevalent in German shepherd dogs (Oakes *et al*., 1994; Lewis and Ellison, 1987 and Dixon, 2004). 80 percent cases of intestinal intussusception have been reported in pups under one year of age as this pup was three months old (Dixon, 2004).

The condition may be associated with enteritis secondary to parasites, viruses, linear foreign bodies, intestinal masses, or previous abdominal surgery; in older animals, it is often associated with neoplasia (Kipis, 1977 and Lewis and Ellison, 1987). The case under discussion showed a complaint of diarrhoea without vomition that is typical signs of ileocolic intussusception (Lewis and Ellison, 1987). Intestinal intussusception is mostly found to be associated with enteritis (Wilson and Burt, 1974 and Ellison, 1986). Intussusception can progress to a point at which the small intestine protrudes from the anus. This is differentiated from rectal prolapse by easy passage of a probe between the prolapsed segment and the rectum which was done in the present case and diagnosed the intussusception (Orshner and Rosin, 1993). Further radiographic detail supports the diagnosis (Lewis and Ellison, 1987 and Oakes *et al*., 1994). The intestinal end to end anastomosis with modified continuous suture pattern was done as per Brown (2003) and Weisman *et al*. (1999).

The present study is unique as the animal was present with recurrent prolapse which actually was an intussusception. Its diagnosis and management discusses the present report.

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