Intussusception resemble to rectal prolapse and its surgical management in cats: Report of two cases

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Abstract

Two cats were presented to Teaching Veterinary Clinical Complex, Mannuthy with complaint of rectal prolapse from past two days. Presented animals were weak and emaciated. On abdominal palpation a small sausage shaped structure could be palpated and the animal exhibited pain on palpation. Due to the oedema of the prolapsed mass it could not be reduced into normal position. The ultrasonographic examination of the abdomen produced a target sign suggestive that the condition was intussusception. Decided to correct the condition surgically. Opened the abdominal cavity through the *Linea alba* and exteriorized the affected portion from remaining segments. Manually reduced the affected portion under general anaesthesia. Closed the abdominal cavity and skin incision as per the standard manner. Animals were exhibited successful recovery.

Keywords: Cat, ileo-caeco-colic intussusception, target sign, ultrasonography

Introduction

Intussusception is the invagination of a portion of the intestine called intussusceptum into the lumen of an adjacent segment called intussuscipiens (Lewis and Ellison, 1987) [5]. Classification of intussusception based on the location include entero-colic (ileocolic), caeco-colic, entero-enteric, duodenogastric and gastroesophageal. Also classified as high (proximal to the jejunum) and low (distal to the duodenum) intussusception (Dixon, 2004) [3]. Diagnosis of the intussusception can be done by using abdominal palpation, radiography, ultrasonography and computed tomography (Patsikas et al., 2019) [7]. In this case report abdominal palpation and ultrasonography were used to made the confirmatory diagnosis. Free passage of the probe through the protruded mass and the rectum was help to differentiate the condition from rectal prolapse.

Materials and Methods

Two cats were presented to Teaching Veterinary Clinical Complex, Mannuthy with complaint of a prolapsed mass through the anus and diarrhoea from past two days. In Case I the cat was one -month old female weighing 0.7 kg and in Case II the animal was 21 days old female weighing 0.2 kg. Both animals were weak and emaciated. Stabilized the animal with subcutaneous fluids and antibiotics. Peripheral veins were not get for haematologic analysis. Physiologic temperature was subnormal in both animals and showed rapid shallow respiration with weak pulse. The protruded mass undergoes some colour change and totally contaminated. For differentiating the rectal prolapse and intussusception, passed a thermometer between the prolapsed mass and anus. The free passage of the thermometer suggested that the condition was not a rectal prolapse. On abdominal palpation felt a small tubular structure in the abdominal cavity. After thorough cleaning with normal saline, the mass was tried to reduced manually. Due to severe oedema the manual reduction was failed. Ultrasoundography of the lateral abdomen revealed a target sign and confirmed the condition was intussusception. The faecal sample analysis of both animals was negative for any parasitic ova of clinical importance. For the reduction of the oedema of prolapsed mass applied the solution of magnesium sulphate into the mass through a wet gauze pad for fifteen minutes. Due to consider the emergency of the condition decided to managed surgically.
Treatment and Discussion
Prepared the ventral abdomen from umbilicus to pubis for aseptic surgery. Thoroughly cleaned the prolapsed mass using sterile normal saline. Anesthetised the animal with inj. ketamine 20 mg/kg body weight and inj. midazolam at the rate of 0.1 mg/kg body weight in intramuscular route. Maintained the anaesthesia with isoflurane 0.5% – 1% using face mask. Positioned the animal in dorsal recumbency and made a linear incision through the linea alba. Opened the abdominal cavity and isolated the intussuscepted portion of the intestine. Gently applied traction from the inner segment to repositioned the prolapsed mass. Gently milked out the intussusceptum from the intussucipiens. The region of intussusceptum was the ileo-caeco-colic junction in both cases. The affected portions were not necrosed and mesenteric blood vessels appeared as normal. So only manual reduction was required for reducing the condition. Lavaged the abdominal cavity with sterile normal saline. Returned the intestinal loops into the abdominal cavity. Closed the abdominal cavity by simple continuous suture pattern using polyglactin 910 size 2-0. Apposed the skin incision by horizontal mattress suture pattern using fine nylon.

Postoperatively the animal was treated with intravenous fluid therapy, inj. ceftriaxone at the rate of 20 mg/kg body weight through intramuscular route for seven days, inj. meloxicam at the rate of 0.2 mg/kg body weight intramuscular route for three days and with B complex vitamins. Gradually introduced semisolid and easily digestible food materials into the diet of the animal. Animal recovered successfully after tenth postoperative day.

Clinical signs exhibited by the affected animals include vomiting, anorexia, tenesmus, bloody mucoid diarrhoea with palpable abdominal mass (Cina et al., 2009) [1]. The most common site for the occurrence of this condition in cats is the
ileocolic junction (Levitt and Bauer, 1992) [4]. In severe cases the intussusception can progress and the small intestine protrudes through the anus. In this point we can able to differentiate the condition from rectal prolapse by the easy passage of a blunt probe between the prolapsed segment and the rectum (Orshner and Rosin, 1993) [6]. In this present case report this method was used to differentiate the condition. Among the diagnostic methods ultrasonography is the most popular diagnostic tool in veterinary field with more accuracy and in ultrasonography the intussusception in transverse plane will appear as a series of concentric rings giving a characteristic Target like or Bull’s eye appearance (Lamb and Mantis, 1998) [3]. The invagination of the intestinal segment commonly occur in normograde direction and rarely in retrograde manner (Rallis et al., 2000) [8].

**Summary**

In summary the present case report give an idea for the differential diagnosis of rectal prolapse and intussusception. The correct diagnosis of the patient condition is very much important for the proper treatment.

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**References**


