ENTEROCUTANEOUS FISTULA SECONDARY TO INTESTINAL FOREIGN BODY OBSTRUCTION IN A DOG

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A 05 months old, male non-descript pup was presented with a non-healing wound draining foul smelling discharge in the right inguinal region for the last 18 days. The wound failed to respond to conventional treatment. Clinical examination revealed discharge of foul smelling semi digested food like material from the wound which led to tentative diagnosis of enterocutaneous fistula. Surgical resection of the fistula involving the affected bowel loop followed by side to side anastomosis was performed which led to uneventful recovery.

Key words: Anastomosis, Chronic wound, Enterocutaneous fistula.

Enterocutaneous fistula has been reported to occur occasionally in humans as complication after intestinal surgery or secondary to inflammatory bowel disease, neoplasia or diverticular disease (Latifi and Turegano, 2011). However, these have most commonly been reported in large animals resulting from complications of umbilical hernia (Bristol, 1994; Freeman et al., 1988; Rijkenhuizen and Sickmann, 1995). The present case report describes the surgical management of enterocutaneous fistula developed secondary to intestinal foreign body obstruction in a dog.

Case History and Observations

A 05 months old, non-descript, male pup weighing 5.4 kg was presented to Teaching Veterinary Clinical Complex, Veterinary College, Anjora, Durg with a non-healing wound over the right caudal abdominal region for the last 18 days. However, after initial treatment, the wound did not heal completely and occasional discharge resembling semi digested food was being observed.

The animal exhibited signs of pain. The clinical examination of the patient revealed normal rectal temperature (101.8°F), tachycardia (130 beats per minute) and tachypnea (30 breaths per minute). The hematological profile revealed an increased hemoglobin (16g/dl) and packed cell volume (44%) indicating dehydration. Based on clinical signs, enterocutaneous fistula was diagnosed and surgery was planned for its correction.

Surgical Treatment and Discussion

The animal was administered with 200 ml of 5% DNS I/V, ceftriaxone and tazobactum combination @ 25 mg/ kg I/V and pentazocine@ 1 mg/ kg I/V. Right abdominal region was prepared for exploratory laparotomy. The animal was premedicated with atropine sulphate @ 0.04 mg/kg body wt. S/C and anaesthetized with xylazine @ 1 mg/ kg body wt. I/M followed 10 minutes later by ketamine @ 10 mg/kg body wt. I/M. With the animal restrained in left recumbency, an incision was made over anterior and posterior aspect of the fistulous area to enter the abdominal cavity.

Exploratory laparotomy revealed that loop of colon penetrated the abdominal muscles and was adherent to the peritoneum. The affected colon was carefully exteriorised through the incision which revealed lodgement of numerous sharp foreign bodies. The intestinal segments were packed with moistened cotton gauze and an incision was made over the fistulous tract to expose the foreign bodies for their removal (Fig.1). Care was exercised to avoid spillage of intestinal contents into the peritoneal cavity. The herniated colon segment was resected including the fistulous tract and intestinal continuity was reestablished by side to side anastomosis using PGA no. 3-0 (Fig.2). The
closure of laparotomy and skin incision was carried out in a routine manner.

Ceftriaxone and tazobactum was continued for 5 days while 5% DNS (500ml daily in divided doses) along with pentazocine@ 1mg/kg body wt. was administered for 3 days. The suture line was dressed twice daily with 5 % povidone iodine solution for 7 days. Strict dietary regimen was advised for 5 days and feeding of bland diet was started from 6th day onwards followed by gradual shift to solid food. No recurrence of the fistula was reported over 06 months after the surgery.

![Image 1: Removal of intestinal foreign bodies](image1)

![Image 2: Side to side anastomosis of intestinal segment](image2)

The enterocutaneous fistula developed spontaneously without any history of trauma or surgery. It is speculated that the cause of the enterocutaneous fistula was intestinal obstruction at ileocaecocolic junction with foreign bodies which pierced the abdominal wall. Enterocutaneous fistulas caused by pelvic trauma, surgery for anal sacculitis, dog bite and intraperitoneal foreign body have been reported in small animals by Frank and Stanley (2009) and Wunderlin et al. (2012) also.

Various treatments for enterocutaneous fistula have been documented. Conservative treatment using octreotide has been considered to provide a good outcome for fistula treatment in humans as it has been shown to convert high output fistulas to low output fistulas. However, long-term hospitalization is generally required and even surgical intervention may be required in the end as also reorted by Karabulatet al. (2008).

References
Frank, J.D. and Stanley, B.J. (2009).