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Surgical management of Abomasal fistula due to gore injury in a male calf

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Abstract

A 4 months old CBJ male calf was presented with a history of gore injury in the umbilicus. On clinical examination, fistulous tract with straw coloured fluid was noticed from the umbilicus. Surgical intervention of the fistula was carried out and on 10th postoperative day sutures were removed and animal made an uneventful recovery.

Keywords: Abomasal fistula, calf

Introduction

Abomasal fistula is the continuous loss of digesta along with digestive secretions from an unusual site which may further alter the electrolyte and acid base status of animal (Fubini and Ducharme, 2004) [3]. The abomasal fistulation has been reported in calves due to necrosis of the organ following its entrapment in the ring however, trauma due to gore injury in a calf is uncommon. The present case report describes about the surgical management of abomasal fistula due to gore injury in a four month old calf.

A 4 months old CBJ male calf was presented to the Department of Veterinary Surgery and Radiology, VCC, RIVER, Puducherry with a history of gore injury in the umbilicus. On clinical examination, fistulous tract with straw coloured fluid was noticed from the umbilicus and the pH of the fluid was acidic in nature which confirmed it as abomasal fistula (Fig 1). The animal was sedated with inj. Xylazine @ 0.1mg/kg b.wt I/V and aseptic preparation of the surgical site was made. An elliptical skin incision was made to resect the infected tissue and adhesions were separated between hernial sac and abomasum. The abomasal edges were debrided and sutured by cushioning followed by Lambert suture pattern using chromic catgut size 1 (Fig 2). The abdominal cavity was lavaged with metronidazole solution. The hernial ring was closed using polyamide size 0 in overlapping suture pattern. Subcutaneous tissue was sutured using catgut size 1 in walking suture pattern. Skin was opposed using polyamide size 0 in horizontal mattress suture pattern (Fig 3). Suture site was protected using benzoin seal and stent gauze applied. Postoperatively inj. Streptopenicillin @ 10mg/kg, inj. Chlorpheniramine maleate @ 0.2mg/kg, inj. Meloxicam @ 0.2mg/kg for 5 days and 3 days, respectively. On 10th postoperative day sutures were removed and animal made an uneventful recovery (Fig 4).

Abomasal fistula is the tract communicates from the lumen of abomasum to the skin surface or occasionally to the lumen of other viscera (Fubini and Ducharme, 2004) [3]. The incidence of abomasal fistula is rare in calves and usually occurs in association with umbilical hernia and omphalophlebitis (Alves *et al.*, 2013; Fubini and Ducharme, 2004) [1, 3] however in our study it occurred due to gore injury without any herniation. Several authors have reported the incidence of abomasal fistula in association with umbilical hernia or trauma in cattle and buffalo (Rijkenhuizen and Sickmann, 1994; Balagopalan *et al.*, 1993; Sobti *et al.*, 1998) [6, 2, 5]. Abomasal fistula was noticed at the region of pylorus confirming the findings of Fubini and Ducharme (2004) [3] and Sangwan *et al.* 2011 [4]. In the present case, pH of the content was acidic in nature and ruled out the possibility of other viscera involved which highlights the need for proper diagnosis followed by careful surgical intervention for treating the abomasal fistula.



Fig 1: Fistulous tract with straw coloured fluid and pH (4-5)

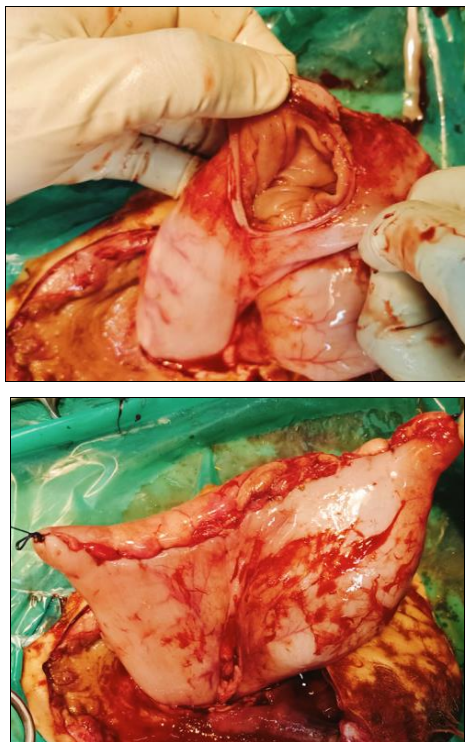


Fig 2: Adhesions were separated and sutured by double inversion suture pattern



Fig 3: Skin apposition using polyamide size 0



Fig 4: Complete recovery – Day 10

Conclusion

Oropharynx plays a critical role in the pharyngeal phases of swallowing and a polypropylene mesh facilitate the reconstruction of ventral wall of the oropharynx which works as a scaffold along with autologous platelet-rich plasma was found to be effective without much complication.

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