

Successful management of rectal prolapse in a mule (*Equus mulus*)

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Abstract

Rectal prolapse is defined as protrusion of one or more layers of the rectum through the anus. Type I or incomplete prolapse involves the rectal mucosa and sub mucosa only, appearing as a large 'doughnut' shaped soft tissue swelling at the rectum. A 3.5 years old mule (*Equus mulus*) was presented to the veterinary hospital Raipur Karchuliyan, Rewa M.P. with a prolapsed mass of rectum characterized by a doughnut-shaped prolapsed mucosa and sub mucosa after complaint of intermittent colic sign since previous two days. Hyosine @ 0.5 mg /kg b.wt I/V, flunixin meglumine @ of 1.1 mg/kg b.wt I/V and Ringer Lactate fluid 3 lit. I/V was administered. Before reducing the prolapsed mass the mule was adequately restrained by giving lower dose of xylazine hydrochloride @ 0.5 mg/kg I/V and 5 ml, 2% lignocaine hydrochloride solution in the first intercoccygeal space was administered. The rectal prolapse manually replaced after application of 50 gm sugar granules and 2% lignocaine jelly on the prolapsed mass. There was no need of purse-string suture because colic sign and tenesmus were reduced. There was no reoccurrence of the prolapse reported later and complete successful management of rectal prolapse was done.

Keywords: Rectal prolapse; type I prolapse; colic, Mule; *Equus mulus*

Introduction

Rectal prolapse is defined as protrusion of one or more layers of the rectum through the anus (Ettinger and Feldman, 1995). Incarceration, strangulation, ulceration and hemorrhage may occur rarely in rectal prolapsed (Gordon, 1999). Rectal prolapse is subdivided into either complete or incomplete rectal prolapse, depending on whether it involves all layers of the rectum or just the rectal mucosa (Anderson and Miesner, 2008). Type I or 'incomplete' prolapse involves the rectal mucosa and sub mucosa only, appearing as a large 'doughnut' shaped soft tissue swelling at the rectum (Reed *et al.*, 2004). Rectal prolapse may occur following any disease that causes tenesmus, including diarrhea, rectal neoplasia, severe enteritis and parasitism (Turner and Fessler, 1980) or prolapsed occur following elevations in intra-abdominal pressure during parturition or episodes of coughing (Snyder *et al.*, 1985). Excessive peristalsis due to periodic increase in muscular tone brings about pain of spasmodic nature (Chakrabarti, 2006). If the prolapse cannot be manually reduced because of inflammation, ulceration and necrosis then surgical amputation or resection of exposed tissue may be required. In this case due to increased peristalsis there may be interruption of normal innervations of the external anal sphincter which resulted in to prolapse.

Case History and Observation

A 3.5 years old mule (*Equus mulus*) was presented to the veterinary hospital Raipur Karchuliyan, Rewa Madhya Pradesh (M.P.) with a prolapsed mass of rectum characterized by a doughnut-shaped prolapsed mucosa and sub mucosa after complaint of intermittent colic sign since previous two days. Colic was intermittent and animal was showing tenesmus. Owner reported that whenever there was a colic episode mass was protruding outside, now it has become stiff and not retracting inside. On clinical examination it was found that there was congested mucous membrane, increased intestinal motility, elevation of rectal temperature 102.5 °F, pulse rate 55/minute and respiration rate 28/minute, frequent passing scanty amount of faeces and animal was looking towards flank showing signs of abdominal pain. An elongated, cylindrical mass protruding through the anal orifice was found diagnostic feature of rectal prolapse and after thorough examination it was found that it was Type I rectal prolapsed with spasmodic colic and tenesmus (Fig 1).



Fig 1. Type I rectal prolapse in mule before treatment



Fig 1. Type I rectal prolapse in mule after treatment.

Treatment and Discussion

Treatment was aimed to reduce the prolapsed mass as well as correcting the spasmodic colic and tenesmus. To reduce the intestinal motility Hyosine was administered at the dose rate of 0.5 mg /kg b.wt I/V, to reduce the colic flunixin meglumine was administered at the dose rate of 1.1 mg/kg b.wt I/V and to reduce the dehydration Ringer Lactate fluid 3 lit. I/V was administered. Before reducing the prolapsed mass the mule was adequately restrained by giving lower dose of xylazine hydrochloride at the dose rate 0.5 mg/kg I/V for sedation and 5 ml, 2% lignocaine hydrochloride solution in the first intercoccygeal space was administered. Prolapsed mass washed with diluted solution of luke warm 2% potassium permanganate solution and liberal lubrication, with acriflavine and glycerine jelly. The effect of analgesia on the perineum was verified by pricking the area with a sterile needle and

the rectal prolapse was manually replaced after application of 50 gm sugar granules (Myer *et al.* 1991 and Demirel *et al.* 2007) and 2% lignocaine jelly on the prolapsed mass. There was no need of purse-string suture because colic sign and tenesmus were reduced. Feeding was withdrawn for 24 h in order to reduce possible irritation of the rectal mucosa during defecation. There was no reoccurrence of the prolapse reported later and complete successful management of rectal prolapse was done (Figure 2). If successful symptomatic treatment is done for removing the etiologic agent the reoccurrence of Type I rectal prolapse can be reduced to minimal level.

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