Equine rectal tears and current methods of treatment

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Introduction

Rectal tears occur most often iatrogenic and occur during rectal palpation for colic examination and reproductive purposes. Dystocia, enema admiration, fractured vertebrae, breeding injuries or spontaneous rupture due to ischemic necrosis are other less common causes of rectal injury described in horses. Rectal tears are a life-threatening problem. It is critical that the veterinarian recognize the problem as soon as possible and provides the first aids and treatment necessary. If rectal tears are not treated promptly, this could have a negative impact on the prognosis and could be used against the veterinarian during a malpractices claim. Breeds as Arabians, Miniature breeds, and older horses present a higher predilection to suffer rectal tears.

Prevention

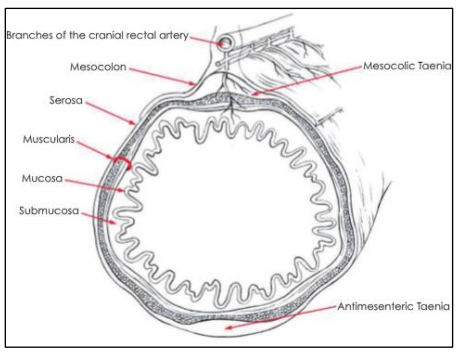
It is imperative to achieve a good rectal relaxation to avoid accidents. Horses that are not accustomed to palpation will require proper restraining techniques (application of the twitch or lip-chain) or the use of sedatives (detomidine 0.01-0.02 mg/kg and butorphanol 0.001 mg/kg). Abundant lubrications should be used during the rectal examination, and all the feces need to be evacuated before attempting to palpate the abdominal organs transrectally. If relaxation of the wall of the rectum it is not accomplished N-butylscopolammonium bromide (buscopan 0.3 mg/kg IV), or a lidocaine enema can be administered.

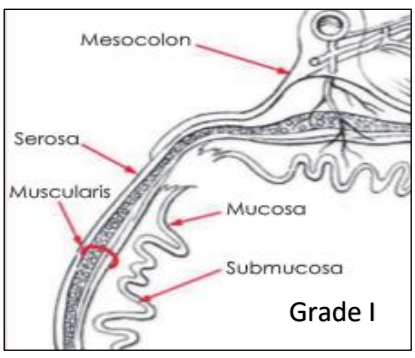
Classification

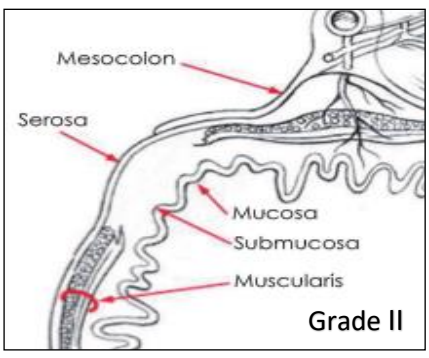
Rectal tears are classified in function of the layers of the rectum that are affected.

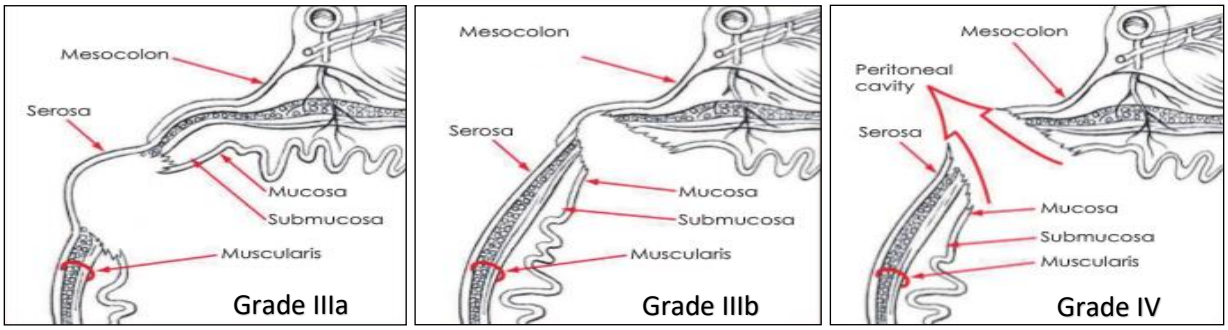
- Grade 1- Mucosa and submucosa
- Grade 2- Muscular layer disrupted
- Grade 3a- All three layers except the serosa

  3b- All three layers except for mesorectum & retroperitoneal tissues
- Grade 4- All four layers









Images obtained from (McMaster and others 2015, EVE)

Clinical signs

Blood on the glove and a sudden decrease in resistance on rectal palpation will be noticed. These horses will present tenesmus, and if the tear progresses to a 4 grade, they could show signs of endotoxic shock and peritonitis after some hours post injury.

First Aid

The veterinarian should aim for a reduction of activity of the rectum to prevent the enlargement of the tear and development of a grade 4. Tranquilization and sedation plus caudal epidural anesthesia (xylazine hydrochloride, 0.1 mg/kg bwt, 2% mepivacaine, 0.2 mg/kg bwt, diluted to 10 ml with 0.9% sodium chloride) will be administered during the first evaluation, and the veterinarian should consider its continuation during the future treatment. Occasionally, an epidural catheter will be placed to facilitate repeated epidural administrations. Gentle removal of feces from tear and rectum will be performed, and the tear will be pack with rolled cotton covered by stockinette. However, this needs to be used carefully since a no proper pack could extend the tear instead of helping. Horses will be started in broad-spectrum antibiotics (penicillin, gentamicin, and metronidazole) and NSAIDS (flunixin meglumine). Depends on the grade of the rectal tear, the treatment will be required to be more or less aggressive.

Treatment of Grade I and II rectal tears

- Medical treatment alone or consider epidural anesthesia, with or without direct suturing in standing animal:
  - Broad-spectrum antibiotics and NSAIDs.
- Feed laxative diet:
  - Eg. water-soaked alfalfa pellets.
  - Regular administration of mineral oil by nasogastric tube.
- Oral or intravenous fluid replacement.

Treatment of Grade III and IV rectal tears

- Prompt and aggressive medical and surgical intervention it is necessary:
  - Broad-spectrum antibiotics and NSAIDs.
  - Feed laxative diet.
  - Large colon evacuation through a pelvic flexure enterotomy.
- Surgical repair:
  - Repair blindly with sewing hand inserted into rectum.
  - Use of long-handled instruments.
  - Surgical stapling equipment- TA 90 premium.
- Bypass treatment:
  - Temporary liner.
  - Loop colostomy/ end colostomy

Prognosis and possible complications

The prognosis of the rectal tears will depend on the size, grade, location of the tear. Also, early recognition of the tear and initial treatment started will affect to the future prognosis and possible recovery. Most of the low-grade tears will heal without residual damage. However, some will form strictures, diverticuli or perirectal abscesses. Grade 4 tears are grave due to the septic peritonitis caused by the fecal contamination. A retrospective study published in 2008 found that rectal tears grade II and II had a 100% of survival versus grade III and IV that had lower survival rates being 38% and 2% respectively.

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