UPDATE ON SURGICAL MANAGEMENT OF RIGHT DORSAL COLITIS
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Key Points
- Bypass alone of the affected colon is generally unsuccessful long-term.
- Resection and bypass of the right dorsal colon should be performed at the first surgery to avoid complications associated with repeat laparotomy in a debilitated patient.
- Resection and bypass can be performed through a ventral midline laparotomy to avoid complications with the previously described lateral approach through a rib resection.

Right dorsal (RD) colitis is one manifestation of non-steroidal antiinflammatory drug (NSAID) toxicity. Horses do not necessarily have a history of high doses or prolonged use of NSAIDs. Horses present with signs of colic or diarrhea with or without weight loss and inappetence. Hypoproteinemia is a consistent clinical feature. RD colitis can be confirmed using abdominal ultrasonographic examination to identify a thick right dorsal colon (RDC)(Figure 1).¹ RD colitis is most commonly managed medically: discontinuing NSAID use; low-roughage pelleted feed or parenteral nutrition; corn or safflower oil; psyllium mucilloid; and Misoprostol®. Analgesia should be provided in the form of a constant rate infusion lidocaine or butorphanol.

Surgical treatment is necessary in some horses that are persistently painful.³,⁴ While the diagnosis of RD colitis can be confirmed with exploratory celiotomy (Figure 2) and any colonic impaction or displacement corrected, it is also recommended to address the RDC at the first surgery because these horses are often debilitated as a result of the chronic disease and can develop complications associated with a second surgery. RDC bypass may be successful in some cases; however, horses often have persistent colic and hypoproteinemia. RDC resection and anastomosis has been described using a right 16th rib resection approach. This procedure is challenging and often results in incomplete resection. RDC resection and bypass is an alternative procedure that can be used to manage RD colitis.⁴

RDC resection and bypass can be performed with the horse under general anesthesia in lateral recumbency through a 16th rib resection or with the horse in dorsal recumbency through a ventral midline celiotomy. The thoracic cavity is often entered using the former

Figure 1. Ultrasonographic image of thickened right dorsal colon

Figure 2. Thickened and inflamed right dorsal colon identified during exploratory celiotomy. Note that the other areas of the colon are within normal limits.
approach. If this occurs, the diaphragm should be attached to the body wall to close the thorax at the beginning of surgery to minimize the risk of deep surgical site infection within the thoracic cavity. The ventral midline approach is preferred. The vessels associated with the affected RDC are ligated and transected either individually or the adjacent right colic artery ligated and resected en bloc. The RDC is resected at the level of the transverse colon using an ILA-100 stapling devise. Oversewing of the transverse colon appears to be unnecessary. At this point the colon can be transected at the diaphragmatic flexure and an anastomosis between the diaphragmatic flexure and small colon performed with the two blind ends of the dorsal and transverse colon tacked together. Alternatively, the remaining left dorsal and ventral colons can be resected and an anastomosis between the right ventral and small colon performed.4-6 Surgical complications included superficial and deep surgical site infection and salmonellosis. These complications are likely to be best avoided by performing the procedure relatively early in the course of the disease and avoiding repeat laparotomy.

References