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*Original Citation:*

*Availability:*

This version is available <http://hdl.handle.net/2318/1570348> since 2016-06-22T12:19:31Z

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## **Laparoscopic nephrosplenic space ablation with a barbed suture in 8 horses**

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Left dorsal displacement of the large colon is common condition in horses, with reported recurrence rates ranging from 3.2% to 21% [1]. A number of techniques for laparoscopic ablation of the nephrosplenic space have been described [2], with the most common being ablation with laparoscopic suturing [3]. Specifically, a new type of suture material has been evaluated in both human and veterinary surgery. The use of barbed sutures in horses has been described in both open and laparoscopic procedures [4].

Eight horses (5 geldings and 3 females) were evaluated for laparoscopic closure of the nephrosplenic space following a history of recurrent left dorsal displacement of the large colon (LDDLC). All animals underwent clinical examination and complete blood profile characterization. Transrectal palpation and transabdominal ultrasonography were performed to exclude the presence of organs in the left paralumbar region.

A left flank laparoscopic approach in the standing horse was used. A continuous suture was placed in the cranio-caudal direction between the renal and the splenic capsule using unidirectional barbed suture material. This allowed obliteration of the nephrosplenic space without the need for knots to secure the leading and terminal ends of the suture line. In all horses, two months postoperatively, transrectal palpation was performed; at this time, closure of the caudal part of the nephrosplenic space was evident. In two cases, laparoscopic follow-up was performed, and confirmation of

complete closure of the nephrosplenic space obtained. Telephone follow-up revealed that symptom recurrence was not noted in any horse.

Among the various preventative measures available for LDDLC, laparoscopic nephrosplenic space closure with unidirectional barbed suture material should be considered an option. The current study describes a change in portal sites, which, compared to the standard technique, yielded—in the authors' opinion—optimal results in terms of the field view and instrument handling. Barbed suture material allowed a secure closure of the nephrosplenic space and eliminated the need for intracorporeal knot tying.

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