Comparison of Exercise Versus a New Rolling Procedure Under General Anesthesia After the Administration of Intravenous Phenylephrine for the Correction of Nephrosplenic Entrapment of the Large Colon in Horses: 97 Cases (2004 to 2010)

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A new rolling procedure using general anesthesia and phenylephrine can be used for the correction of colic caused by nephrosplenic entrapment, with an increased success rate compared with intravenous phenylephrine and jogging. Authors’ addresses: Equine Medical Center of Ocala, 7107 W Hwy 326, Ocala, FL 34482 (Peloso, Adams); College of Veterinary Medicine, University of Georgia, 501 D.W. Brooks Drive, Athens, GA 30602 (Giguère, Fultz); e-mail: jpeloso@emoccala.com. *Corresponding author; **Presenting author. © 2011 AAEP.

1. Introduction
Nephrosplenic entrapment of the large colon (NSELC) refers to an entrapment of the ascending colon over the nephrosplenic ligament. Medical therapy options include administration of phenylephrine alone or combined with exercise or rolling under general anesthesia. Comparison of the various medical methods involving the consistent use of intravenous phenylephrine has not been previously reported.

2. Materials and Methods
The medical records of 97 cases that met the criteria for diagnosis of NSELC were reviewed. Each case was treated with phenylephrine and then exercised (jogged) or rolled under general anesthesia, based on the discretion of the clinician.

3. Results
Significant differences in admission variables, survival, length of hospitalization, and cost were not detected between horses that were jogged or rolled. The success rate of rolling under general anesthesia after the administration of intravenous phenylephrine (87.3%; 48/55) was significantly (p = 0.002) higher than the success rate of jogging after intravenous phenylephrine (59.5%; 25/42). The success rate of rolling the failed jogging attempts was 70.5% (12/17).

4. Discussion
Rolling under general anesthesia may be a superior medical therapy for NSELC. After splenic contraction, the direct application of force to the left paralumbar space may encourage dislodgment of the colon from the nephrosplenic space.