

Closure of the nephrosplenic space for treatment of recurring left dorsal displacement of the large colon in standing horses

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Dorsal displacement of the large colon and its subsequent incarceration in the nephrosplenic space is not uncommon in horses and was described by Marek. Recurrence of the incarceration of the large colon in the nephrosplenic space varies from 3.2 to 7.5%. Surgical closure of this space is indicated for the treatment of such recurring affections. Three male female horses were used in this study. The animals were 12-16 years old and weighed between 450 and 600 kg. One of the mares displayed recurrence of the large colon incarceration in the nephrosplenic space, while the surgical closure of this space was a preventive measure in the other animals. Standing flank laparotomy was performed. Sedation and analgesia were accomplished by romifidine (0.1 mg/kg) intravenously (i.v.) and butorphanol tartarate (0.05 mg/kg) intramuscularly (i.m.). Local anesthetic blockade, as well as of the lateral thoracic nerve, were induced with lidocaine 2%. In both situations (reverting the incarceration and preventing its future recurrence) the surgical approach allowed a good visualization of the left kidney, of the dorsal spleen capsule, and of the nephrosplenic ligament (*lig. lienorenale*). A segment of approximately 10 cm in length on the dorsal spleen capsule was submitted to digital pressure allowing the individualization of the spleen capsule by sliding away the parenchyma, which was subsequently sutured to the mid-third nephrosplenic ligament using polyglactin 910 #2 with plain, interrupted stitches, in the cranio-caudal axis. An average of five sutures was enough for the procedure described above. Every animal was given an association of penicillin (10.000.000 IU) i.m. twice a day and gentamicin (6.6 mg/kg once a day) i.v. for five consecutive days, in addition to flunixin meglumine (1.1 mg/kg). Animals were observed during 20 days and did not present any noticeable change. The abdomen of the mare that had presented clinical incarceration was evaluated 18 days after the surgical procedure by laparoscopy. The nephrosplenic space was completely closed, and a clear differentiation between the spleen capsule and the nephrosplenic ligament was not possible, ten months after the surgery, the female had no signs of abdominal pain and was in good health. Surgical correction of the left dorsal displacement of the large colon by standing flank laparotomy had been previously reported by Huskamp & Kopf and Foz Filho et al. Huskamp & Kopf submitted eight animals in standing position, followed by surgical removal of the last rib, and attachment of the renosplenic ligament to the fascia over the dorsomedial surface of the spleen with interrupted absorbable sutures. Zekas et al. treated a case of recurring incarceration of the large colon in the nephrosplenic space by laparotomy in an animal under deep anesthesia, in right lateral recumbency, followed by closure of the space with 12 plain, interrupted stitches, using polypropylene #2. More recently, closure of the renosplenic space was accomplished by apposing the dorsomedial splenic capsule to the dorsal portion of the renosplenic ligament with polyglactin 910 in a continuous pattern in 5 animals without prior occurrence of dorsal displacement of the left colon, through laparoscopy, with the animal sedated and in standing position by Mariën et al. This approach, with the animal standing in upright position, allows a better visualization of the nephrosplenic space, when compared to lateral recumbency, since, due to gravity, the spleen forces the ligament and holds the large colon apposed to the ventral abdominal wall. These results, taken altogether, suggest that the access through the flank, with a standing animal, is indicated for the correction of cases with recurrence of left dorsal displacement of large colon, being successfully followed by closure of the nephrosplenic space.