

## Intermittent gastric dilatation after gastropexy in a dog

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A 3-year-old 28-kg male Belgian Malinois dog was admitted to the veterinary hospital for evaluation of acute abdominal distension. On examination, the dog's abdomen was palpably taut and, although he was alert, signs of discomfort were evident. With the dog lightly sedated, a tube was passed into the stomach with some difficulty, and a large amount of fluid and gas was removed. Survey radiography revealed a gas-filled stomach and a dorsally positioned pyloric shadow. At laparotomy, the stomach was decompressed, positioned properly, and a tube gastrostomy was performed. The pyloric antrum was fixed to the right abdominal wall, using 6 interrupted sutures of No. 0 polyglactin 910. Eight days after surgery, the dog removed the Foley catheter<sup>a</sup> that was used for the tube gastrostomy. The catheter exit wound healed rapidly, and the dog was released 16 days after admission.

After 27 months, the dog was readmitted because of abdominal distension. Stomach tube passage allowed removal of copious amounts of greenish fluid and some food. Radiography revealed a large spleen, gastric dilatation, but no volvulus. Ten days later, abdominal distension was again evident. A stomach tube could not be passed, and trocarization via the right paralumbar fossa was necessary to release gas. A dorsally positioned pyloric shadow was observed on a lateral radiographic view. Laparotomy was performed. The stomach was rotated 270° counterclockwise, and no evidence of the prior surgery or of the gastropexy site was found. Splenectomy of a distended and congested spleen and tube gastrostomy were performed. Because of the apparent failure of the prior gastropexy, the pyloric antrum was attached to the peritoneal wall by use of 6 interrupted sutures of No. 0 polydioxanone. The Foley catheter remained in place 11 days, and the dog was discharged 14 days after surgery.

During the next 5 months, the dog had 2 ep-

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<sup>a</sup>Akron Catheter Inc, Akron, Ohio.

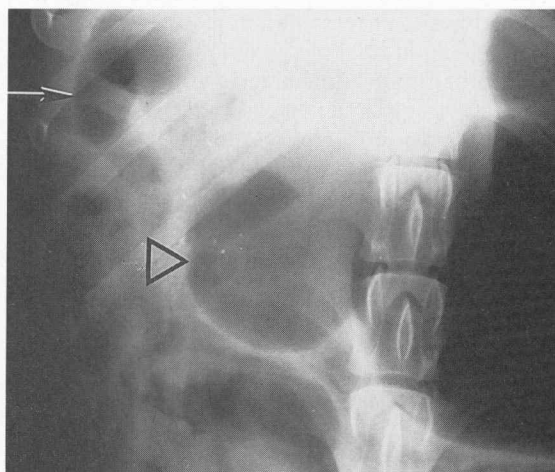


Figure 1—Ventrordorsal radiographic view of a portion of the abdomen of a dog with intermittent gastric dilatation after tube gastropexy. Notice the dilated stomach, pyloric antrum (open arrow) and duodenum (closed arrow).

isodes of gastric dilatation. Radiography revealed gaseous distension of the stomach and proximal portion of the duodenum (Fig 1). Obstruction was suspected and, on laparotomy, the pyloric antrum was found to be strongly adhered to the right abdominal wall; however, the angle between the stomach and proximal portion of the duodenum was approximately 45°, in the configuration of an inverted L. The pyloric antrum and the proximal portion of the duodenum were dilated with gas. Hypertrophy of the pyloric sphincter was not detected via digital examination.

To straighten out the L configuration, the proximal (ventral) row of gastropexy adhesions were severed via electrocautery. The fibrous tract that had been induced by the Foley catheter from the prior surgery and the dorsal adhesions were left to maintain antral position. To enlarge the outflow tract, a Heineke-Mikulicz pyloroplasty was performed.<sup>1</sup> Prior to discharge, contrast radiography, using barium sulfate suspension, revealed normal gastric emptying time with no evidence of duodenal distension. The dog has done well for the past year, with no return of the dilatation.

Treatment of gastric dilatation/volvulus syndrome in dogs is multifaceted, and includes gastric

decompression, treatment of shock, recognition and treatment of cardiac arrhythmias, and prevention by fixation of the pyloric antrum to the right abdominal wall.<sup>2-6</sup> Tube gastrostomy is a widely used procedure, which creates an adhesion to the body wall, and allows for continued gastric decompression. Few complications are associated with this technique, but possible problems include premature tube removal and delayed gastric emptying.<sup>7</sup>

In the dog of this report, use of absorbable sutures for the gastropexy procedure and the dog's early removal of the gastrostomy tube at 8 days may explain the failure of the first surgery to induce adequate attachment. For the second gastrostomy, the Foley catheter remained in place 11 days after surgery. In addition, polydioxanone sutures, which are absorbed more slowly and retain their tensile strength longer than polyglactin 910, were used for the gastropexy procedure.<sup>8</sup> After the second gastropexy procedure, the position of the antral attachment and the intermittent nature of the gastric dilatation episodes indicated that the L configuration acted as an intermittent valve to trap gas. The pylorus was flaccid, with no evidence of

hypertrophy that would trap food, liquid, or gas. In addition, barium sulfate suspension had flowed through the tract with no obstruction prior to surgery. Pyloroplasty was performed at the time the L configuration was straightened to enhance gastric outflow, not because there was evidence of pyloric thickening.

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### **Duration of pituitary and adrenocortical suppression after long-term administration of anti-inflammatory doses of prednisone in dogs**

Duration and magnitude of hypothalamic-pituitary-adrenal axis suppression caused by daily oral administration of a glucocorticoid was investigated, using an anti-inflammatory dose of prednisone. Twelve healthy adult male dogs were given prednisone orally for 35 days (0.55 mg/kg of body weight, q 12 h), and a control group of 6 dogs was given gelatin capsule vehicle. Plasma cortisol (baseline and 2-hour post-ACTH administration) and plasma ACTH and cortisol (baseline and 30-minutes post corticotropin-releasing hormone [CRH] administration) concentrations were monitored biweekly during and after the 35-day treatment period.

Baseline plasma ACTH and baseline and post-ACTH plasma cortisol concentrations were significantly ( $P < 0.05$ ) lower in treated vs control dogs after 14 days of oral prednisone administration. By day 28, baseline ACTH and cortisol concentrations remained significantly ( $P \leq 0.05$ ) lower and reserve function was markedly ( $P \leq 0.0001$ ) lower, as evidenced by mean post-CRH ACTH, post-CRH cortisol, and post-ACTH cortisol concentrations, in treated vs control dogs. Two weeks after termination of daily prednisone administration, significant difference between group means was not evident in baseline ACTH or cortisol values, post-CRH ACTH or cortisol values, or post-ACTH cortisol values, compared with values in controls. Results indicated complete hypothalamic-pituitary-adrenal axis recovery 2 weeks after oral administration of an anti-inflammatory regimen of prednisone given daily for 5 weeks.—G. E. Moore and M. Hoening in *Am J Vet Res* 53 (May 1992).