

What's Your Radiographic Diagnosis?

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History

A 2-year-old Vizsla vomiting for 2 days. Vomitus contains partially-digested food or bile-stained phlegm. Vomition occurs independent of feeding time, 4-6 times per day. Appetite and general attitude remain good.

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Physical Examination

All parameters are unremarkable except abdominal palpation, which is mildly painful to the dog. Fluctuant gas-containing bowel loops can be palpated in the mid-abdomen.

Following survey radiographs, a barium upper GI study was performed using 4 ml/lb liquid barium suspension (Novopaque, Picker Int.). Figures 1 and 2 were made 4 hours after oral barium administration.

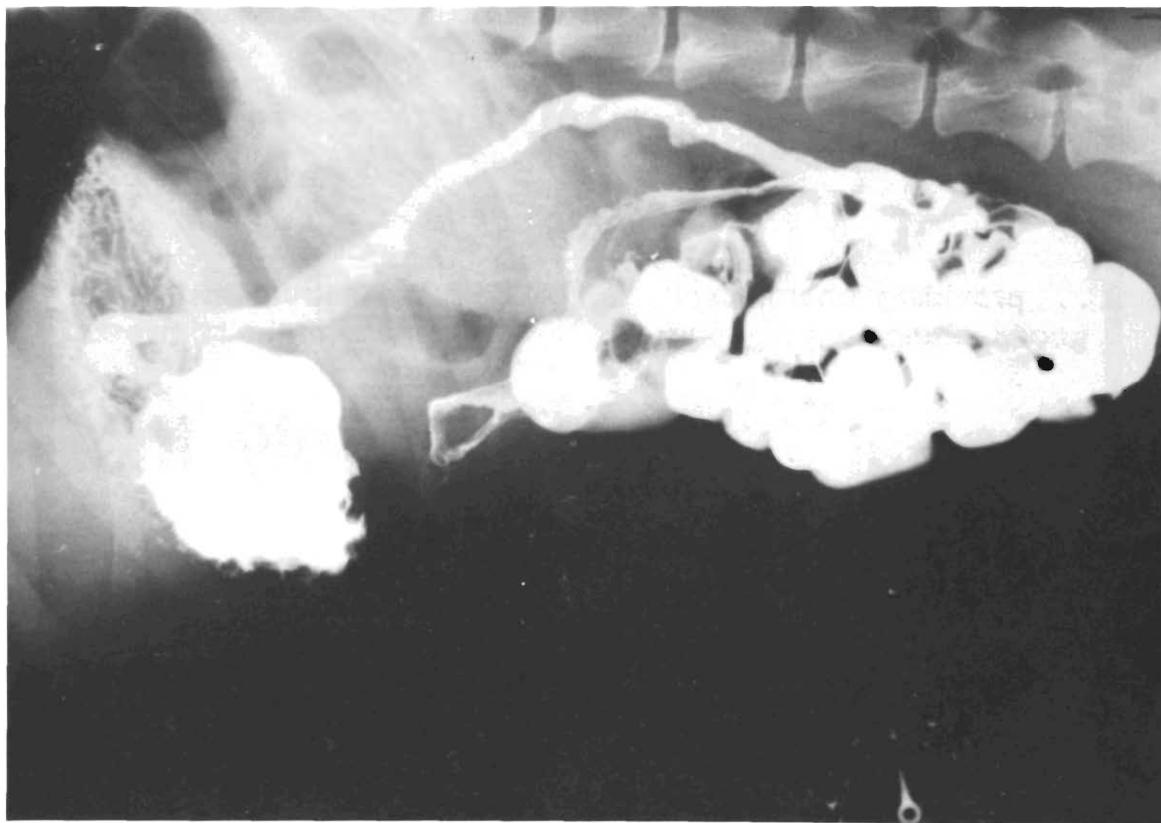


Fig. 1. Barium study: lateral view of abdomen.



Fig. 2. Barium study: dorsoventral view of abdomen.

Radiographic Findings

Emptying time of barium from the stomach is abnormally long (with normal gastric emptying, only a thin coating of rugae should remain after 3 hours). The location of the descending duodenum is altered, i.e. displaced medially as seen on the ventrodorsal view (Fig. 2). The descending duodenum should normally maintain a straight course along the right abdominal wall. In this case, other air-filled bowel loops are present between the descending duodenum and the right cranial abdominal wall. The contour of the jejunal loops is abnormal: tight, irregular curves, with a bunched appearance in the mid-abdomen. Some loops of jejunum are distended beyond the acceptable diameter for small bowel (normal diameter being only up to the measurement of the dorsal-to-ventral dimension of a lumbar vertebral body). Transit time of ba-

rium into the colon is also delayed (normal = 3.5 hours).

Interpretations

The combination of slow barium passage time out of the stomach and through the small bowel, along with displaced, bunched, tightly coiled, and irregularly dilated loops of small intestine indicates high probability for linear intestinal foreign body.

Dispensation

At surgery, multiple enterotomies and gastrotomy allowed removal of approximately 3 feet of roller gauze bandage material. The patient had been donated to Iowa State University for orthopedic surgical research and was housed in the surgery ward, however, the specific source of the roller gauze was not determined. The dog made an uneventful recovery following surgery.