



PATIENT

Arlo Johnston

SPECIES

Canine

BREED

Neutered male

SEX

8.9 kg

AGE

6 years. 11 months

WEIGHT

8.9 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Sumeet Sharma

HOSPITAL NAME

Edmonton West AH

REFERRING VET

Dr. Sharma

PRESENTING CLINICAL SIGNS

History: Since last month dog is vomiting every few days (mainly in the morning-foamy bilious vomit) nothing abnormal found on physical exam, no change in weight. Usually get fed late at night but that did not work either. Now since last one week his vomit frequency is increasing. Drinking excessively on days when his stomach is upset, and would not eat on those days when he vomits. Not responding to symptomatic meds (omeprazole, sucralfate, cerenia), kept on GI food and non responsive to it. Pain/reactive on cranial abdominal scanning.
Abnormal PE/Chem/CBC/UA Results: low protein and globulins in recent blood report, it was all fine in previous reports, blood work attached (including previous report).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 4.4 cm. The right kidney measures 4.22 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.46 cm. The right adrenal gland measured 0.44 cm.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic

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lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

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Gastrointestinal

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The stomach revealed a fluid filled lumen. The pylorus was mildly thickened with hypertrophied mucosa. The curvilinear patterns to the gastric wall appear within normal limits, yet the upper duodenum was thickened with mucosal striations. Mucosal splitting was noted. The clinical significance of this is unknown. The colon revealed soft stool in the lumen. The mesenteric lymph nodes are reactive and measured 2.8 x 0.56 cm.

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Pancreas

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The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

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ULTRASONOGRAPHIC FINDINGS

WEIGHT

Chronic gastritis, duodenitis with mucosal splitting, sampling is strongly recommended.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

INTERPRETED BY

Mucosal or full thickness biopsies would be ideal in this patient. A clinical trial of the following can be considered. Given the low protein, protein losing enteropathy is suspected. Screening for Addison's is warranted even though the adrenal glands appear normal. A clinical trial of the following may prove effective.

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Helicobacter/Gastritis protocol

Sumeet Sharma

A clinical trial of **Zithromax** (*Dogs*: 5-10 mg/kg p.o. q24h. May increase dosing interval to q48h after 3-5 days of treatment), **Metronidazole** (10-20 mg/kg p.o. b.i.d.), **Pepcid** (0.5-1 mg/kg s.i.d.) and **Sucralfate** (0.5-2 g/dog PO) or **Omeprazole** (1 mg/kg p.o. s.i.d.) over the next 3 weeks along with a **novel-protein or hydrolyzed diet** with slurry feeding b.i.d./t.i.d. over the next 2-4 days and then increase to canned diet bid. Dry food should be avoided over the next 4 weeks. A recheck sonogram to assess GI improvement or progression would be ideal in 4 weeks.

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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