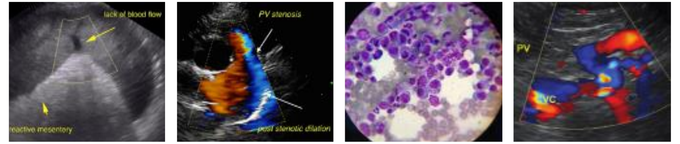


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Daisy Zhang

SPECIES

Canine

BREED

Golden Retriever

SEX

FS

AGE

5 years

WEIGHT

52

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Hannah Fearing

HOSPITAL NAME

Lanier AH

REFERRING VET

Dr. Hannah Fearing

INVOICE

16275

DATE

2/23/23

PRESENTING CLINICAL SIGNS

Daisy started not feeling well yesterday afternoon. She was being less energetic than usual and didn't want to eat dinner. She was offered dry, blackberries, and wet food which she did not eat, only licked the spoon of the wet food. She is drinking water but this morning she was not able to keep it down. She had no interest in food this morning which is very unlike her. This morning at 3 am she was crying in her bed and vomited. Mom gave some prune juice last night, about 9 mLs via syringe, and that was what was vomited up. This morning she did try to poop but Mom was not able to find it. Kona did tear up wood ornament last night and Mom isn't sure if Daisy got to it at all. She is only on fish oil daily and Heartgard and Nexgard monthly for prevention.

Abnormal PE/Chem/CBC/UA Results: Xray results: Abnormal fluid and gas distention of the stomach and small intestine. Severe gastroenteritis could have this appearance but, at the risk of over interpret this study I am concerned about the presence of an early or partial or distal small intestinal obstruction. Further evaluation is warranted 2. The finding of ingesta in the stomach is unexpected in a patient with a current clinical history of vomiting and anorexia. Further evaluation is warranted to rule out the possibility of gastric foreign material.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The area of the aortic trifurcation was free of pathology.

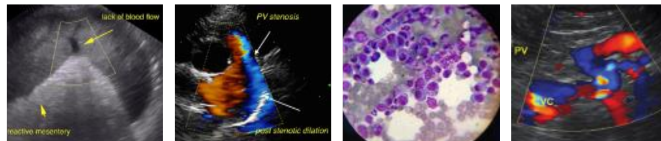
Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.2 cm in length. The right kidney measured 5.7 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.63 cm width at the caudal pole and 0.49 cm width at the cranial pole. The right adrenal gland was indistinctly visualized yet overtly normal in size, position, and shape measuring 0.61 cm width.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.



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Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented overtly normal visualized gastric walls. The stomach was moderately distended with gas, which prohibited full evaluation of the gastric lumen. No obvious evidence of mechanical obstructive pyloric criteria or obstructive pyloric mural pathology was noted.

The small intestine presented intact overtly normal wall layering exhibiting 1:3 muscularis/mucosa ratio with segmental subjective moderate to variable intestinal ileus pattern exhibiting by retained anechoic fluid and pockets of intestinal gas. Concurrent gas distended small intestine, as well as segmental empty small intestine without evidence of retained fluid or ingesta.

Sonographically unremarkable colon wall layers were present. The segmental to generalized colon, specifically the descending colon, appeared to contain nonformed to liquid fecal matter, consistent with possible emerging diarrhea.

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

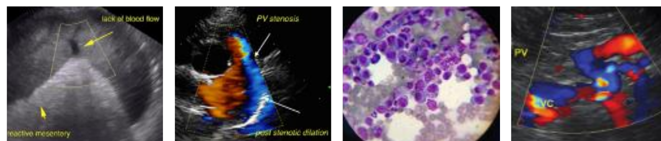
Intermittent mesenteric to peri intestinal lymph nodes were present. These lymph nodes were homogenous, mildly hypoechoic and smoothly marginated. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident. No omental masses or peritoneal effusion.

ULTRASONOGRAPHIC FINDINGS

- Gas distended stomach
- Segmental dysfunctional bowel / intestinal ileus pattern with concurrent segmental gas distention and segmental empty small intestine
- Associated mild subjective benign / reactive mesenteric lymphadenopathy - suspect lymphatic hyperplasia or reactive lymphadenitis secondary to inflammatory bowel episode
- Non-formed to liquid fecal matter, segmental to generalized colon

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A definitive area of gastrointestinal obstruction either secondary to foreign material or mural pathology was not overtly visualized. The intestinal presentation may indicate inflammatory bowel episode secondary to dietary indiscretion, enterotoxic insult, occult parasitism, acute inflammatory bowel disease, infectious disease, or less likely occult infiltrative neoplasia. However, the segmental



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dysfunctional bowel to ileus pattern with concurrent evidence of empty small bowel is somewhat concerning for a non-visualized obstructive pattern.

Hospitalization with 24/hour IV fluids, gastrointestinal support, assessment of clinical response, and ideally sonographic monitoring of the gastrointestinal tract for evidence of dysfunctional bowel or ileus resolution vs. persistent / progressive segmental to possible generalized ileus pattern is recommended. If strong clinical concern for a non-obvious obstructive pattern, exploratory laparotomy for gross inspection with gastrointestinal biopsies considered essential may be indicated.

RAD

Gas distended stom

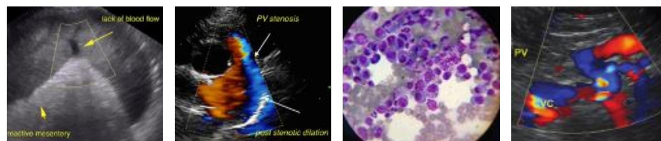
Spl

Segmental hypomotile SI

Empty SI

Colon

LN



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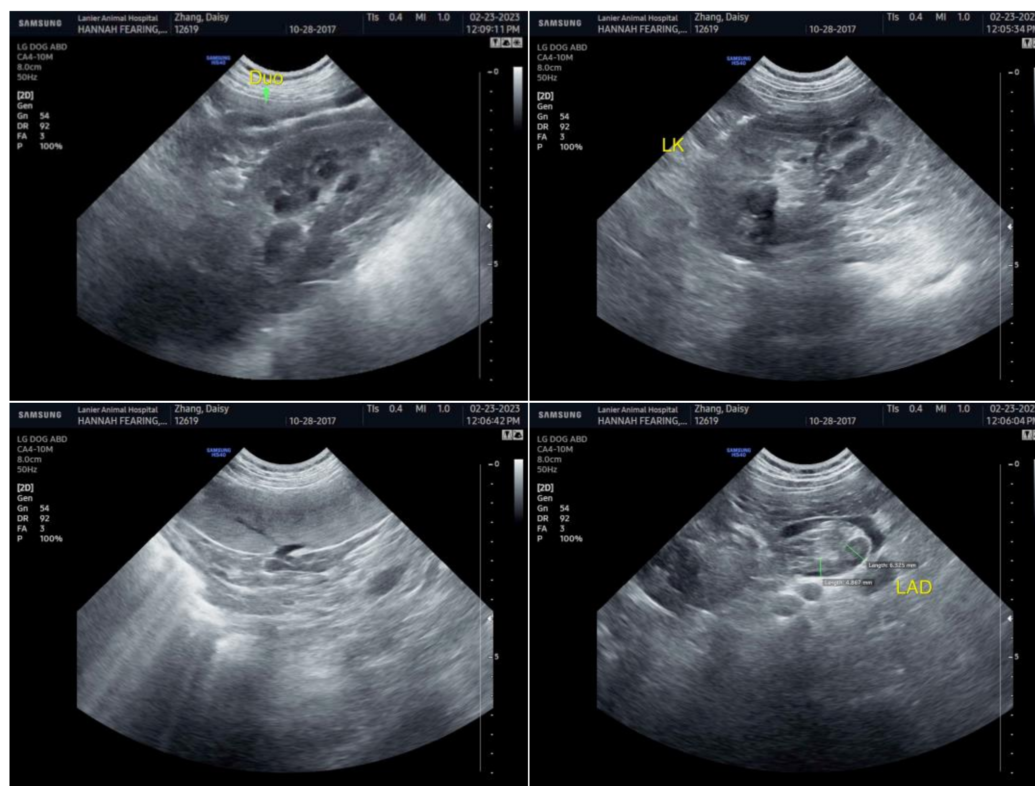

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com