

**DATE PRESENTING CLINICAL SIGNS**

6/27/23 Chronic vomiting and diarrhea.

PATIENT

Peanut Baker

Current Medications: None listed.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: Declined.
 Imaging Performed By: Rachel Brillhart, RDMS.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Beagle

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

SEX

Spayed Female

The left kidney has a normal shape and size (4.74 cm) with pinpoint non-obstructive nephroliths. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

AGE

4/16/18

The right kidney has a normal shape and size (5.27 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

27 Pounds

INTERPRETED BY

Kathleen Sennello DVM,
 MS, Diplomate ACVIM
 (Small Animal Internal
 Medicine)

Adrenal Glands

The left adrenal gland is normal in size measuring 0.55 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.50 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

HOSPITAL NAME

Homeward Bound VS

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

REFERRING VET

Dr. Vance

Liver

The liver is large and hypoechoic. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

INVOICE

43463

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains moderate luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.36 cm. Jejunum wall measures 0.32 cm. Visualized peristalsis appears appropriate. There is generalized thickening of the small intestine with some areas that appear more significantly thickened measuring up to 0.65 cm with reduced detail/“fuzzy” wall layering.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with nonformed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering. Colon wall measures at 0.29 cm.

Pancreas

The pancreas is large and hypoechoic to surrounding mesentery. There is a large cystic appearing lesion visualized in the right cranial abdomen measuring 1.78 cm x 3.68 cm, which has the appearance of a large cystic lymph node in the region of the pancreas. Additionally, there are hypoechoic lymph nodes visualized in the region of the pancreas. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatitis.

Free Abdomen

There is scant free abdominal fluid. There are hypoechoic lymph nodes visualized in the region of the pancreas, some of which appear somewhat cystic, measuring 0.95 cm, 1.4 cm x 1.2 cm, and 1.5 cm in diameter. The omentum is hyperechoic in the cranial abdomen, particularly around the pancreas and the abnormal lymph node structures.

ULTRASONOGRAPHIC FINDINGS

- Prominent, hypoechoic, mottled right limb of the pancreas with surrounding cystic lymph nodes – The pancreatic changes are most consistent with moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.
- Hypoechoic, occasionally cystic lymph nodes visualized in the right cranial abdomen in the region of the pancreas – One such lesion is large and primarily cystic. Findings could be consistent with reactive/cystic lymph nodes, small pancreatic mass lesions, metastatic lesions, etc.
- Large, hypoechoic, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Diffusely thickened small intestine with some focal areas with reduced detail/ “fuzzy” wall layering – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia.
- Fluid distended colon – Findings are most consistent with the diarrhea reported.
- Scant free abdominal fluid.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The right limb of the pancreas is prominent, hypoechoic and mottled with surrounding hyperechoic mesentery. There are irregular, occasionally cystic appearing lymph node in the region of the pancreas, and a much larger irregular cystic lesion that could represent a large cystic lymph node or a primary pancreatic lesion (cyst, abscess, other). Correlate findings with a quantitative PLI level. Recommend empirical treatment for pancreatitis. A fine needle aspirate of a cranial abdominal lymph node could be considered at this time, or continued monitoring of these cystic regions and lymph nodes could be considered if there is no improvement with therapy. Pancreatic neoplasia cannot be ruled out at this time.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

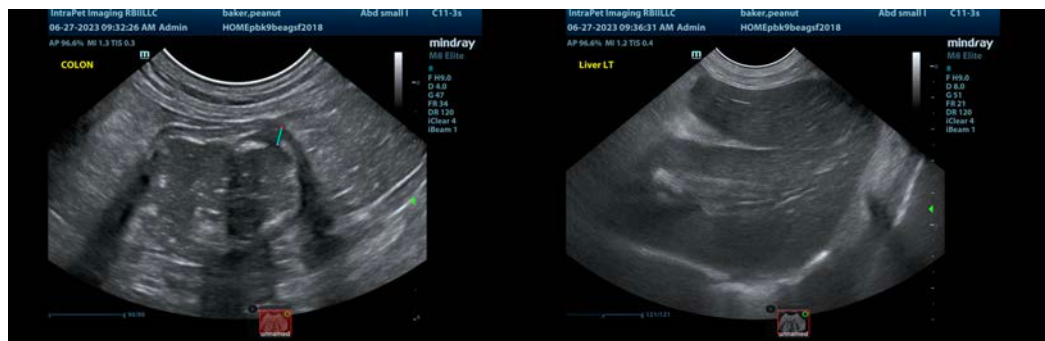
The liver appears large, heterogeneous, and hypoechoic with some hyperechoic surrounding mesentery. Correlate these findings with lab work. A fine needle aspirate of the liver could be considered as long as coagulation parameters are normal.

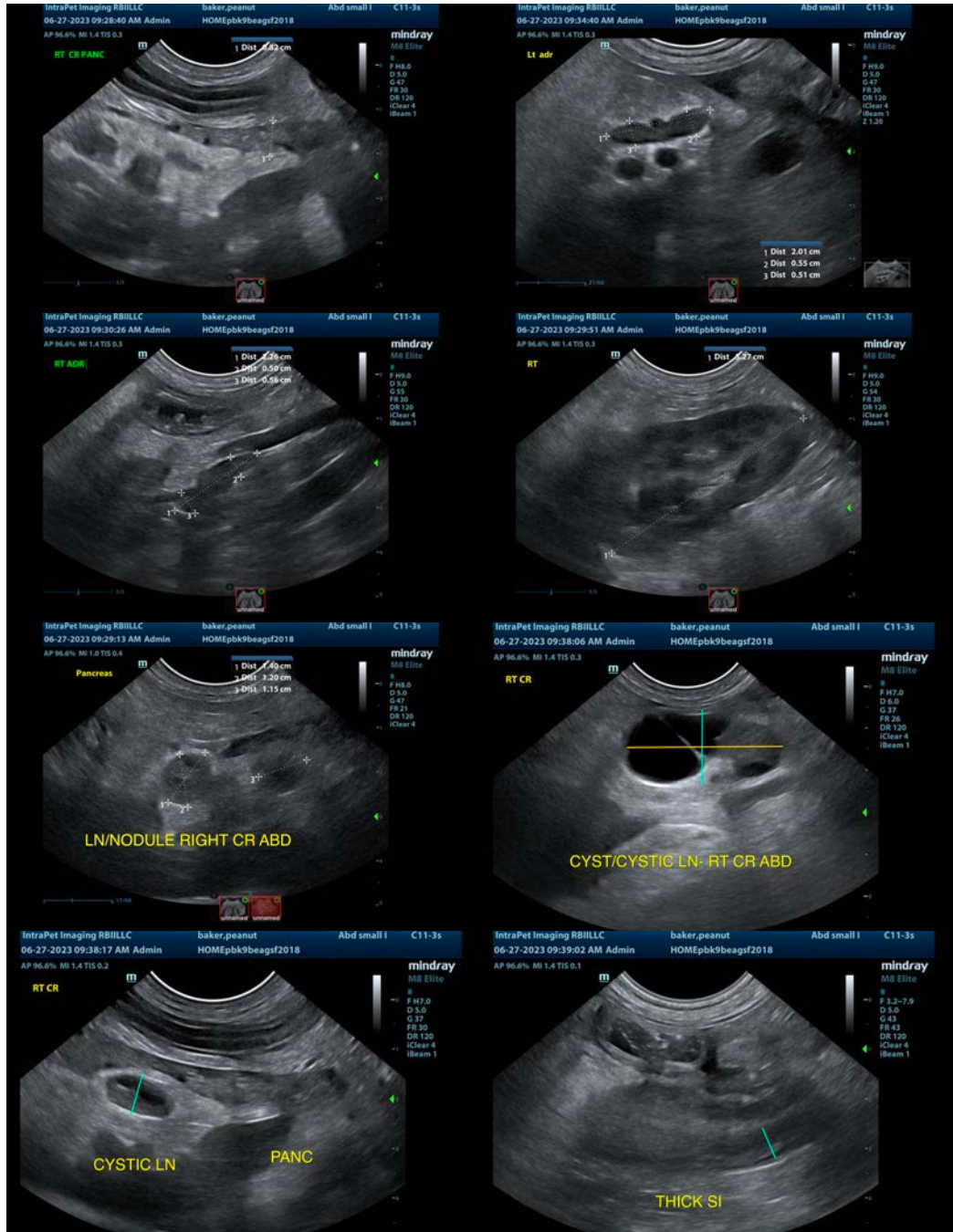
The small intestine appears thickened, and some areas have reduced detail of wall layering. This could be consistent with edema, infiltrative disease, etc. If symptoms persist despite symptomatic therapy, GI biopsies may need to be considered.

Consider such differentials as food allergy/dietary intolerance, GI parasitism, pancreatitis, dysbiosis, recurrent dietary indiscretion, IBD and less likely neoplasia, etc....

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Recommend chronic probiotic therapy.

The above can be considered as short-term therapy. If improvement is noted, consider more aggressive diagnostics and therapy.





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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