

**DATE PRESENTING CLINICAL SIGNS**

7/19/22 Lethargic and inappetence for 3 wks, 2lbs of weight loss over 3 months. Over grooming lumbar region, 4/6 heart murmur, improved on cerenia but symptoms returned.

PATIENT

George Lukasic
 Current Medications: None.
 Lab Results: Mildly elevated amylase 1287 Precision PSL 65.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: Not requested.

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Maine Coon

SEX

Neutered Male

AGE

2/18/11

WEIGHT

14.8 Pounds

INTERPRETED BY

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 MS, Diplomate ACVIM
 (Small Animal Internal
 Medicine)

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

All Creatures
 Veterinary Service

REFERRING VET

Dr. Keys

INVOICE

39661

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.

The left kidney has a normal shape and size (4.83 cm). Overall echogenicity is slightly hyperechoic with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.78 cm). Overall echogenicity is slightly hyperechoic with mildly decreased corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.44 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 0.42 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.

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.

Liver

The liver is subjectively normal in size and echogenicity. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. The liver is irregular with occasional ill-defined nodules. One of these hypoechoic, more discrete nodules is visualized measuring 1.5 cm x 2.18 cm.

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

Gastrointestinal

The stomach is dilated with a large amount of fluid and irregular shadowing material most consistent with normal ingesta and gas. It measures at a normal thickness of <0.36cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layering 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 thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.29 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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

Pancreas

The pancreas is large and hypoechoic to surrounding mesentery. Prominent pancreatic duct noted. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with mild pancreatitis.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a diffuse mesenteric lymphadenopathy visualized with lymph nodes measuring 0.41, 0.37, 0.42 cm. There is a particular cluster around the ileocecal junction with surrounding hyperechoic mesentery.

ULTRASONOGRAPHIC FINDINGS

- Mottled, hypoechoic pancreas with prominent pancreatic duct surrounded by hyperechoic mesentery – The pancreatic changes are most consistent with mild 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.
- Heterogeneous liver with occasional ill-defined nodules – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy. The nodules visualized could represent a benign or neoplastic process.
- Large shadowing ingesta within the gastric lumen – Correlate with feeding history and abdominal radiographs. If the patient was adequately fasted, consider such differentials as delayed gastric emptying or gastric foreign material (such as hairballs, etc.).
- Prominent muscularis layer to the small intestine – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.
- Occasional prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

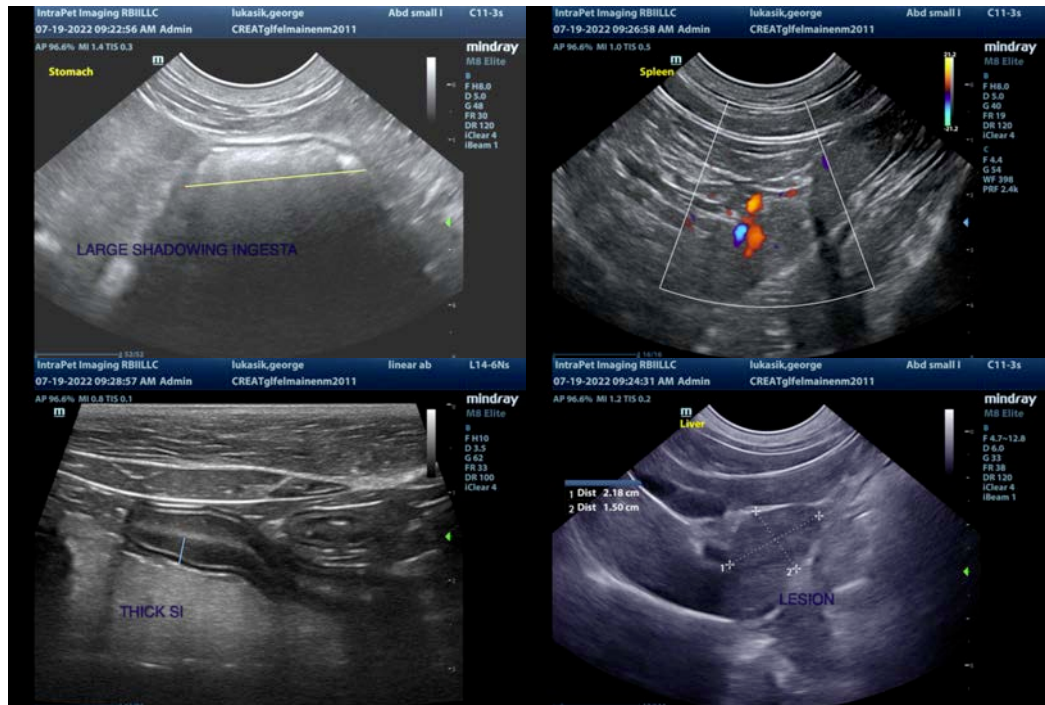
The pancreas is hypoechoic and prominent with a dilated pancreatic duct and mild inflammation surrounding. Additionally, there was pain on scanning this area of the abdomen. Findings are concerning for pancreatic inflammation. Consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestinal changes observed.

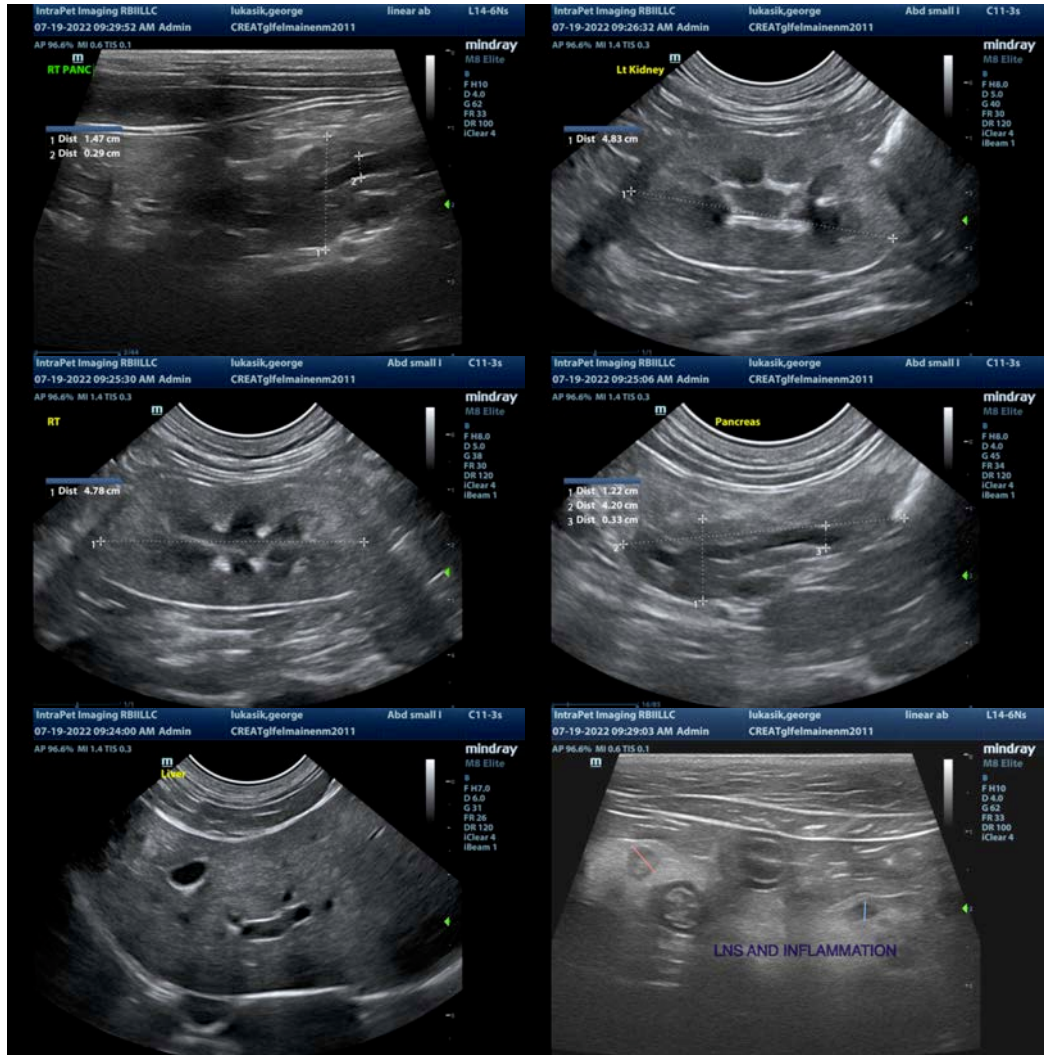
Some of the small intestine appears subjectively thickened with a prominent muscularis layer. These are non-specific findings that could indicate underlying inflammation. Additionally, there is a mild mesenteric lymphadenopathy present.

- Consider a hydrolyzed protein/novel protein prescription diet.
- Consider chronic probiotic therapy.
- Recommend 3-view thoracic radiographs.

The liver is heterogeneous, and there are occasional ill-defined nodules visualized. The significance of this with a lack of liver enzyme elevation is uncertain, but a fine needle aspirate of the liver or mass lesion could be considered. Continued monitoring is strongly recommended.

There is a moderate amount of shadowing material visualized within the gastric lumen. Correlate this with x-rays and feeding history. If the patient was adequately fasted, consider the possibility of hairballs, ingested foreign material, etc.





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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