

**DATE**

2/15/22

PRESENTING CLINICAL SIGNS

History: Seen for increased appetite and weight loss, Grade 2 murmur noted on exam, thyroid was palpable on exam, liver values elevated on labs

Lab Results: Attached separately.

PATIENT

Kitty Nussle

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Dexdomitor and Torb.

Stat Report: Not requested.

Imaging Performed By: Andi Parkinson, RDMS.

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**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.

BREED

Domestic Shorthair

SEX

Spayed Female

The left kidney has a normal shape and size (3.5 cm). Overall echogenicity is slightly hyperechoic with poor 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.

AGE

12/3/06

The right kidney has a normal shape and size (3.62 cm). Overall echogenicity is slightly hyperechoic with poor 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.

WEIGHT

5.2 lbs

Adrenal Glands

The left adrenal gland is normal in size measuring 0.4 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 0.28 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.

INTERPRETED BY

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

HOSPITAL NAME

Animal Care Center

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. Beavers

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. 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. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

INVOICE

96071

Gastrointestinal

The stomach contains minimal luminal contents. 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 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 relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (0.28 cm) and the jejunum measured as normal (0.25 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 prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a significant mesenteric lymphadenopathy present with mesenteric lymph nodes measuring 0.64 cm, 0.85 cm and a cystic mesenteric lymph node measuring 0.64 cm. The omentum is of increased echogenicity around the enlarged lymph nodes.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Hypoechoic prominent pancreatitis. The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Heterogenous hypoechoic 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.
- Moderate mesenteric lymph node enlargement. The moderate lymphadenopathy visualized could be concerning for a neoplastic process although you can also see significant lymphadenopathy and some causes of cases of an autoimmune inflammatory disease, infectious disease (tick borne disease such as Bartonella, fungal infections, FIP, etc.). A FNA with cytology is recommended for further evaluation.

SECONDARY FINDINGS:

- Decreased corticomedullary distinction in both kidneys. The bilateral renal findings are consistent with age-related change.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

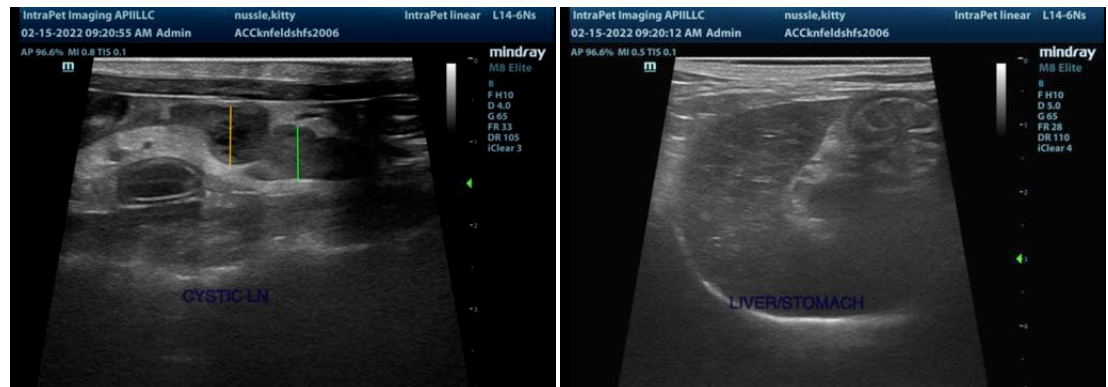
The pancreas is prominent and hypoechoic. These findings are most consistent with either chronic mild pancreatitis or recent episode of pancreatitis. Consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.

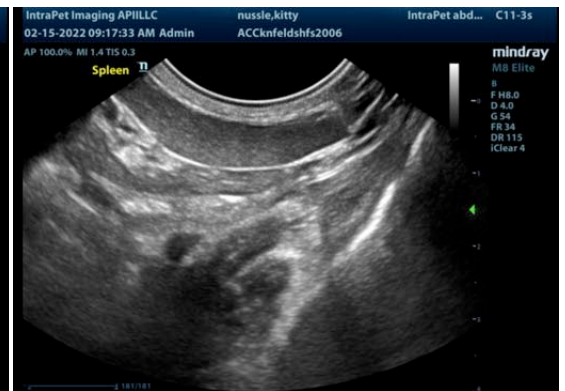
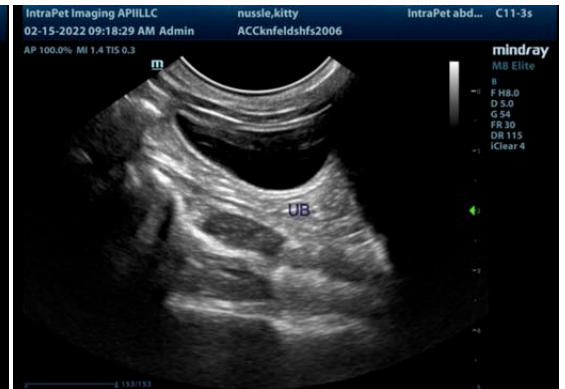
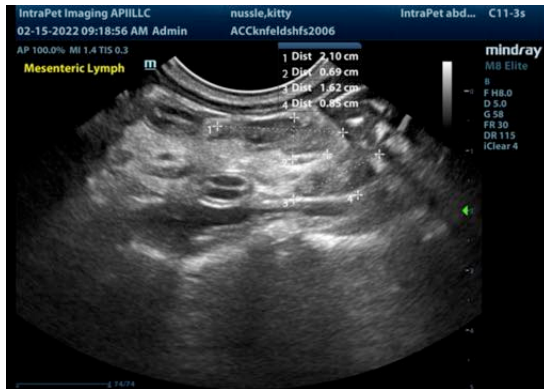
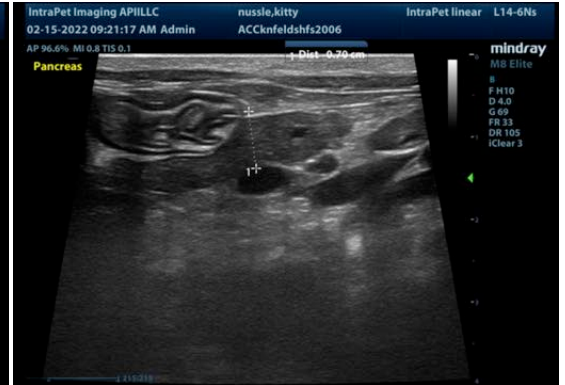
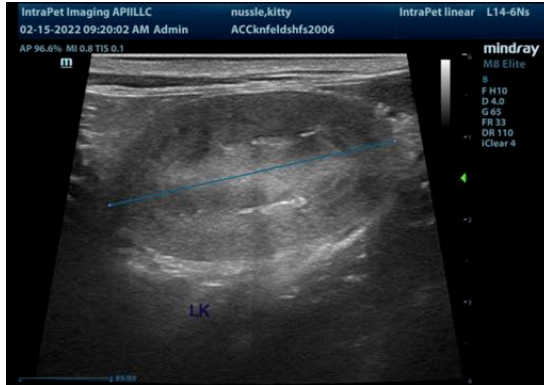
No focal lesions are observed in the liver, but it is heterogenous and somewhat hypoechoic. This appearance favors an inflammatory or infectious etiology. Infiltrative disease is also possible.

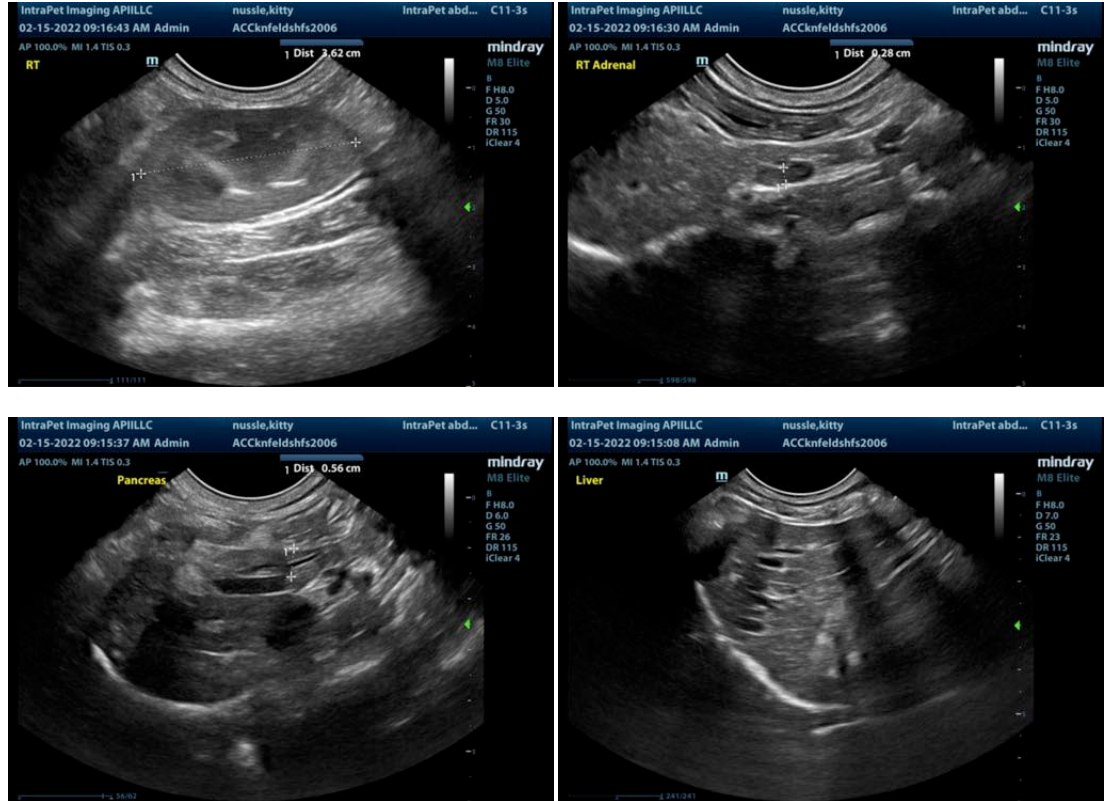
- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc..
- Recommend thyroid evaluation (if not already done)
- If not already done consider pre and post prandial bile acids to evaluate liver function
- Consider fine needle aspirate if round cell neoplasia is on your differential list (25 g needle, normal coags)
- If cytology is not helpful and there is no response to therapy, consider liver biopsy with samples obtained for histopathology and culture.
- If triaditis is suspected consider therapy for cholangiohepatitis (fluids, antibiotics , +/- Ursodiol,+/-steroids), testing for pancreatitis and evaluation for IBD (GI panel to Texas A&M GI lab). Based on the pancreatic changes observed this could be a possible etiology as well as exocrine pancreatic insufficiency.

The mesenteric lymph nodes are prominent. If possible consider a FNA of these lymph nodes in addition to the liver.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.







The information and recommendations provided are based on the images presented by the referring veterinarian. 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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