

**DATE PRESENTING CLINICAL SIGNS**

12/10/21

History: occasional vomiting (pink tinge) 1-2 times per week.

PATIENT

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Punkin Hagemen

Sedation: Gabapentin PO.

Stat Report: Not requested.

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

12/1/09

WEIGHT

11.68 Lbs.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2.00 cm) appear normal with no evidence of wall thickening, mucosal irregularities or masses. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris. There is a focal area of dependent mineralization visualized, measuring 0.46 cm, which is most consistent with a solitary calculus. Correlate findings with abdominal radiographs.

The left kidney has a normal shape and size (3.7 cm). Overall echogenicity is normal with adequate 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 (4.27 cm). Overall echogenicity is normal with adequate 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 0.4 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 0.36 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 (1.0 cm in width at the level of the hilus), 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 with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gall bladder 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**INTERPRETED BY**

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MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

IMAGING PERFORMED BY

Stephanie Pearce
RDCS, RVT

HOSPITAL NAME

Northeast AH

REFERRING VET

Dr. Simpson

INVOICE

12993

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36 cm 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 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. The duodenum measured 0.42 cm in diameter and the jejunum measured 0.35 cm in diameter. 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 mottled 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 free fluid. Mesenteric lymphadenopathy was visualized with mesenteric lymph nodes appearing somewhat inflamed and measuring 0.53 cm and 0.5 cm. The omentum is hyperechoic around these mesenteric lymph nodes.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Suspect bladder stone. Correlate these findings with abdominal radiographs to differentiate from a pile of mineralized debris. I recommended urinalysis and culture.
- Thickened small intestine with prominent muscularis layer. The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.
- Prominent mesenteric lymph nodes with surrounding inflammation. The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

Secondary Findings

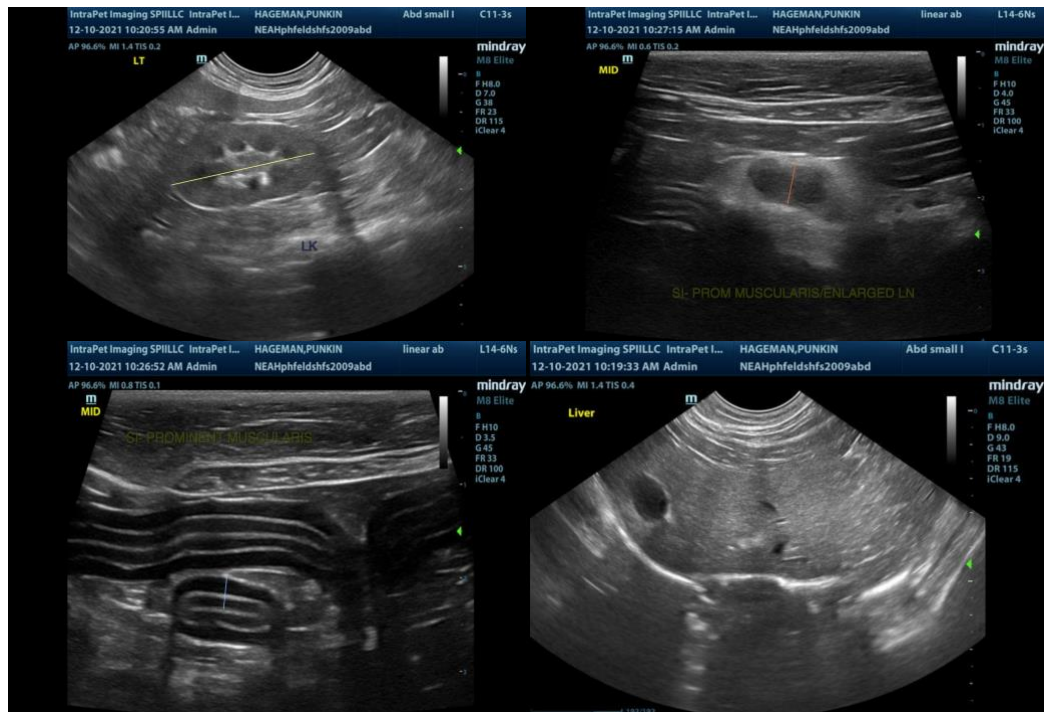
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

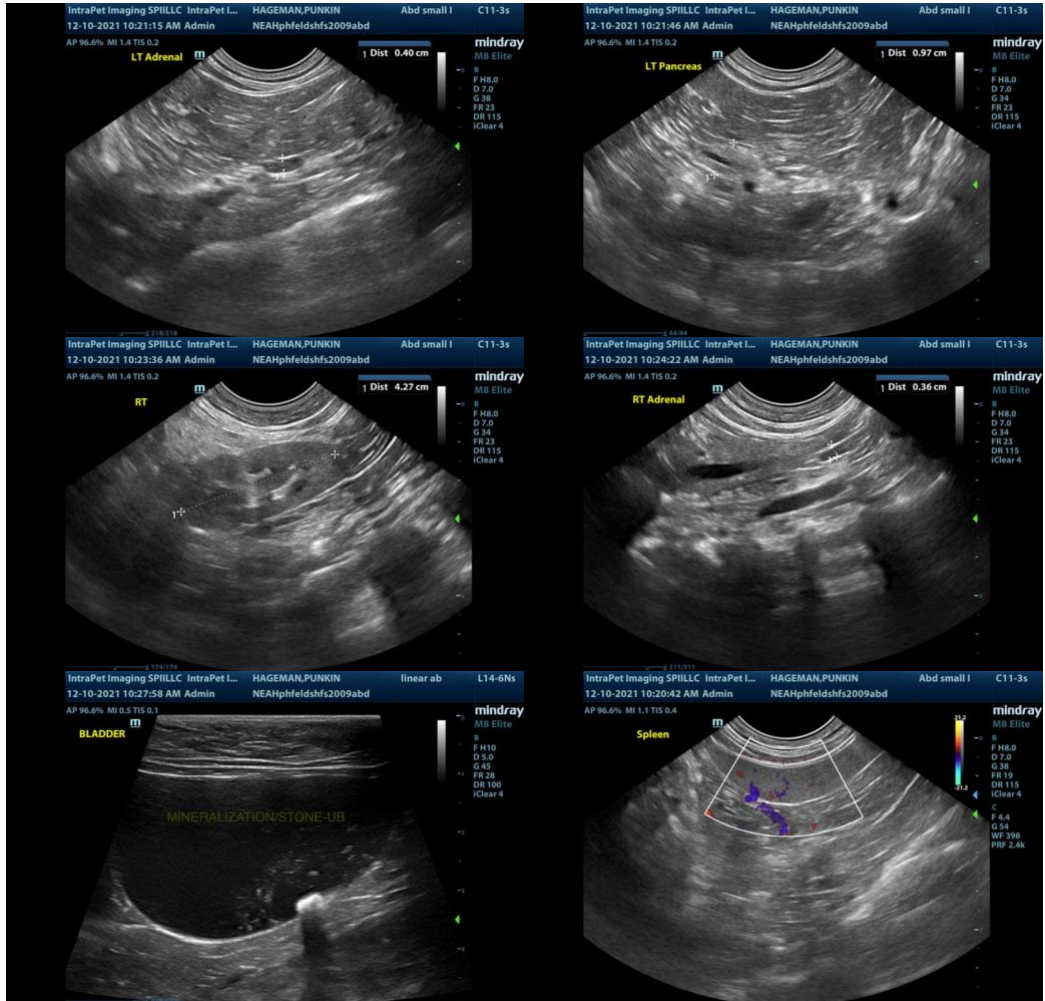
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The wall appears thickened with a prominent muscularis layer and enlarged prominent mesenteric lymph nodes surrounding. This is most consistent with inflammation of the GI tract but can also be seen with infections or an underlying neoplastic process. The impression here favors a benign process. Options moving forward include:

- Consider a novel protein or hydrolyzed protein prescription diet
- Consider probiotic therapy
- Recommend a GI panel (to Texas A & M University) for a quantitative FPLI, TLI, cobalamin and folate to further evaluate the pancreatic changes and small bowel.
- If vomiting persists, consider obtaining GI biopsies, either by upper GI endoscopy or surgery. If surgical approach is opted for, then consider obtaining a sample of mesenteric lymph node as well- additionally, a fine needle aspirate of a mesenteric lymph node can be considered.

The impression of a solitary stone is visualized on the images submitted. Occasionally, a clump of dependent debris can appear similar, so recommend correlating these findings with abdominal radiographs. If no infection is present, this is likely calcium oxalate, and you could consider a cystostomy in addition to GI biopsies if you opt to move forward to remove the stone.





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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