

**PATIENT**

Cinder Linke

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

13 Years

WEIGHT

10.8 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**IMAGING PERFORMED BY**

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VET

Dr. Richards

INVOICE

46233

DATE

3/28/23

PRESENTING CLINICAL SIGNS

Vomiting large amount of water and hair. Possible increased thirst. On exam last week: Patient possibly having more hairballs, but no evidence of overgrooming. Owner feels that he may be drinking more because there are sometimes large volumes of water with the vomitus but does not describe polyuria. Patient is now preferring dry food over canned. Weight has been maintaining. Owner recently adopted a new puppy, so patient has been hiding in basement more. Presented today vomiting food after each meal and weight loss.

Abnormal PE/Chem/CBC/UA Results: FIV + - this is a new change, has previously tested FIV negative, does occasionally go outside. Owner has declined confirmatory testing at this time. New murmur heard today. Mild increase in Globulin Elevation in CPK Mild increase in BUN Protein Present in urine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are bilaterally uniformly enlarged/swollen with an overall hyperechoic echogenicity and slight loss of corticomedullary definition. Normal smooth peripheral margination and shape are maintained. The renal pelvis are dilated with anechoic fluid and hyperechoic thickened pelvic fat. No overt evidence of neoplasia or mineral is observed. The perinephric area is enhanced by hyperechoic fat and mesentery. The left kidney measures 4.53 cm with pyelectasia at 0.31 cm in the transverse view. The right kidney measures 4.86 cm with pyelectasia at 0.29 cm in the transverse view.

Adrenal Glands

The right adrenal gland is normal in size (0.37 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.39 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. In the caudal liver, caudal to the stomach, there is a still image of a 2.4 cm round, anechoic lesions, consistent with a cyst. The lesion is less able to be visualized in the videos due to reverberation artifact in the area. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. It is bilobed in appearance, which is an incidental anatomic variant in cats. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen is empty with no evidence of obstruction or foreign material.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

ULTRASONOGRAPHIC FINDINGS

- **Pyelonephritis** – These changes are most consistent with chronic pyelonephritis. Chronic scarring and fibrosis and/or chronic nephrolith passage can also result in these pelvic dilation changes. Early infiltrative disease cannot be ruled out but is considered less likely.
- **Inflammatory bowel disease (IBD) pattern** – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- **Reactive mesenteric lymph nodes** – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- **Anechoic cystic lesion in the caudal liver** – This may represent a hepatic cyst, although in a senior cat, a benign biliary cystadenoma is also possible. Malignancy can't be ruled out but is considered much less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

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A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

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Ideally, biopsies of the GI tract, being sure to include ileum if possible, are recommended to definitively diagnose and therefore manage the infiltrative bowel disease.

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If biopsies cannot be obtained, empirical therapies could include diet change, empirical deworming with a 5 day course of Panacur, cobalamin supplementation (unless cobalamin level is evaluated and supplementation is not warranted) and prednisolone (if not contraindicated based on patient contraindications, co-morbidities, etc.). Other supportive therapeutic considerations could include fiber supplementation, especially with large bowel diarrhea and/or a probiotic.

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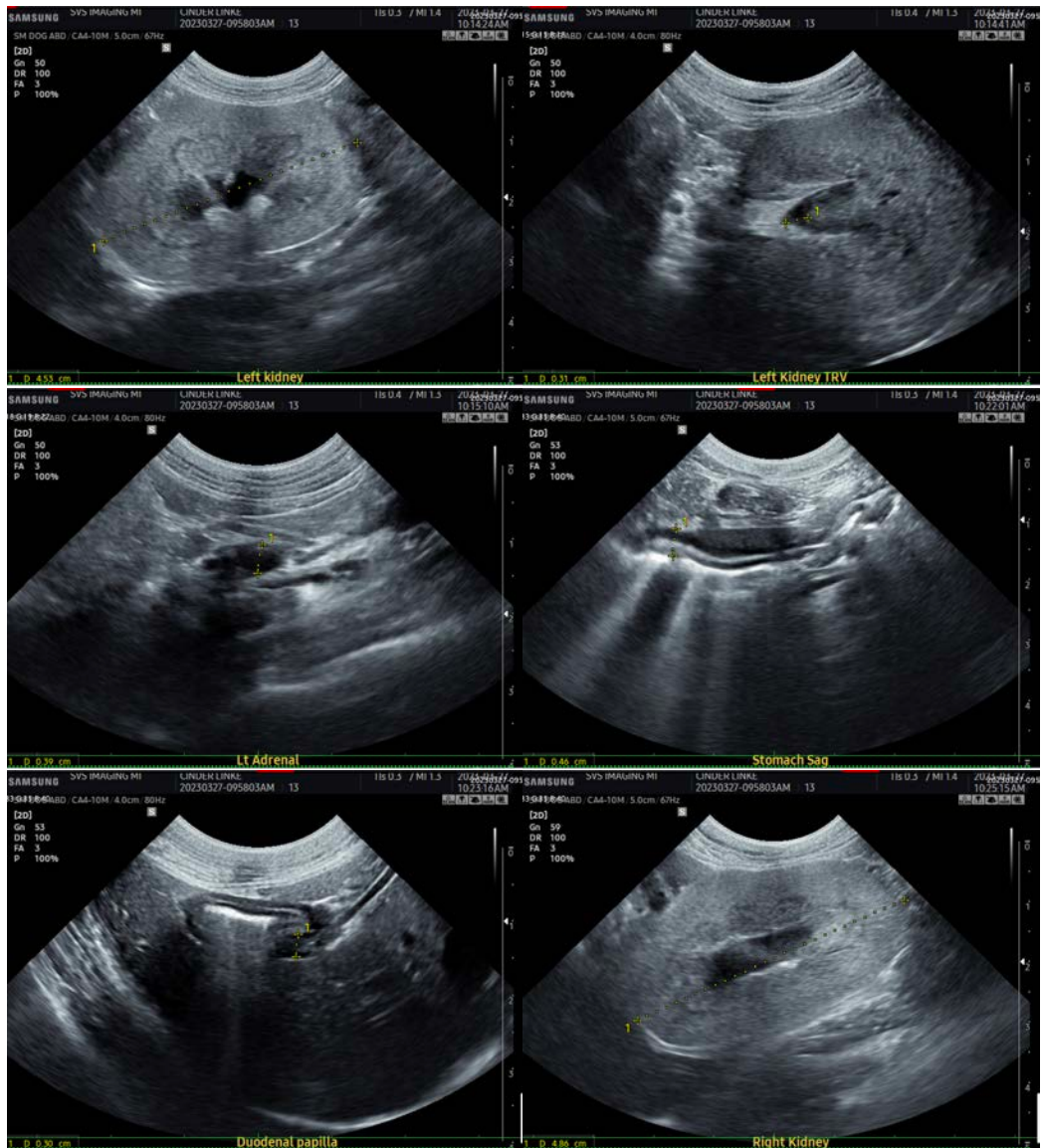
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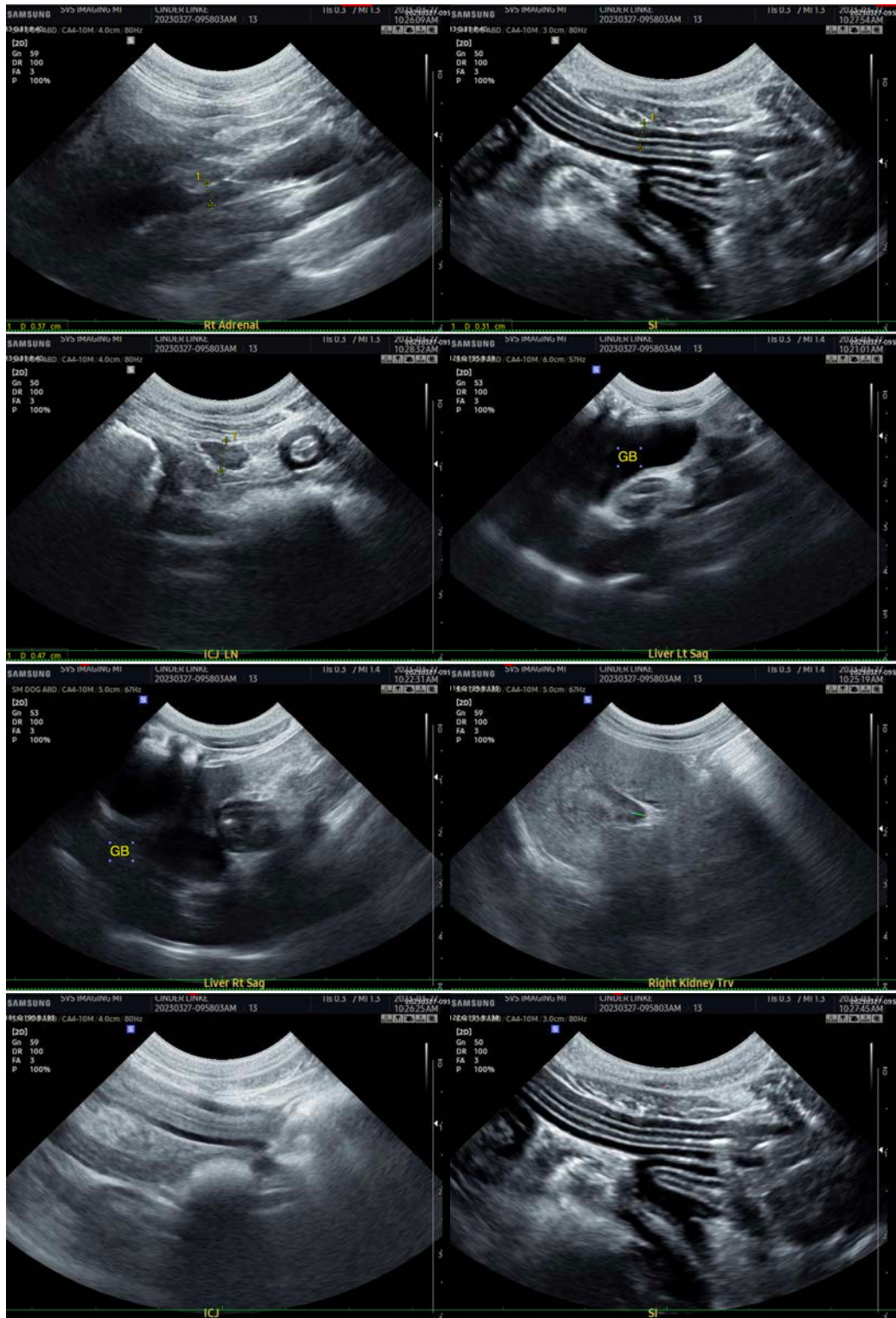
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com