**PATIENT**

Sky Ottman

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Spayed female

**AGE**

14 years

**WEIGHT**

11.2 Pounds

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

Amy Mayhew LVT

**HOSPITAL NAME**

SVS Imaging Michigan

**REFERRING VET**

Family Pet Practice

**INVOICE**

32240

**DATE**

8/9/22

**PRESENTING CLINICAL SIGNS**

History: Current Medications: cosequin SID the past week On gabapentin 100mg today for scan only RC Renal Early Consult diet (housemate diagnosed with early renal disease) Patient History: Presented for annual exam 8/8/22, but upon admission, O mentioned daily vomiting (for unclear amt of time). O suspects both cats in home are vomiting, has been finding several piles around home. Possible vomiting after drinking water. Decreased appetite noted for unclear amt of time, not wanting much canned food, unsure if eating any dry food.

Abnormal PE/Chem/CBC/UA Results: Most notable is 2.5lb wt loss in the past 11months, NEW-leukopenia, hyperglobulinemia, mild liver elevations, elevated amylase Exam notes from 8/8/22: BAR - timid, nervous while here (reactive to IH barking dog) 5. mild tartar/gingivitis noted, mild halitosis. Be resistant when opening mouth/checking under tongue, only able to look at teeth 8. thinner coat over sternum, no signs of barbering, rest of coat looks great - suspect contact lesion/callus based on location? Underlying skin looks healthy 9. mildly reactive/trembling on ab palpation, noted over kidneys and cranial ab - rule out pain vs behavioral AGE done by AFH due to hx of AG issues in the past (has improved with planned wt loss over the years- full but easily expressed, normal material present) 13. 2.5lb wt loss in past 11months (has always been an obese cat), BCS better today, but O unaware of any wt loss On RC Renal Early Consult due to housemate having early stage renal disease- easier for O to feed both cats this diet. O has been trying to do more canned food than dry, but P is no longer interested/excited to eat canned food and housemate tries to get it. Dry food is free fed/offered, unclear if P is eating that at all IH BW: CBC: Leukopenia with neutropenia and lymphopenia, confirmed with blood smear. BUN mildly elevated (36.3), normal Creat (1.6) TP too high to read (>11), unable to get Glob measurement, Alb mildly elevated (3.6H) Elevated ALT, AST, Amylase >2500. Lytes normal. T4- 3.8 wnl UA--USG 1.014, trace protein, otherwise wnl FeLV/FIV- neg/neg Reviewed findings over phone- suspect P is likely the one vomiting in the home (unsure if Star is as well). Expressed concern with wt loss and decreased appetite. Per O, she is still drinking well, she thought kidneys may be worse as she may be vomiting after drinking water. Reviewed concern with WBCs, glob that severe inflammation or potential neoplasia is a good possibility, poss pancreatitis, hepatitis may be starting. Rec AUS as a good next place to start, O expressed cost concerns, but interested in scheduling. Reviewed option for referral vs IH AUS and potential sedation to help with imaging. O would like to try oral meds to help lower cost/not needing injectable sedation - will help if P does not vomit it back up. Reviewed no food after 9pm for scan tomorrow AM, water ok. Give gabapentin 3 hours prior to scan.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

Urinary bladder is adequately 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 overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is mild pyelectasia that measured 0.32 cm in the transverse view. There is no mineral or infarcts observed. The left kidney measured 3.57 cm. The right kidney measured 3.48 cm.

**Adrenal Glands**

Left adrenal gland is normal in size (0.45 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

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Right adrenal gland is normal in size (0.38 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

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**Spleen**

Spleen is subjectively large in size with subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous echotexture. Several, small, multi-focal, hyperechoic nodules are noted throughout the parenchyma. Splenic vasculature appears normal.

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**Liver****SEX**

Spayed female

Liver is subjectively enlarged (swollen contour). Mild parenchymal remodeling with diffusely mildly coarse architecture and increased portal markings is present. No focal nodules or masses are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**AGE**

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Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**WEIGHT**

11.2 Pounds

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. 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 of the small intestine 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.

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**Pancreas**

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

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**Free Abdomen**

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

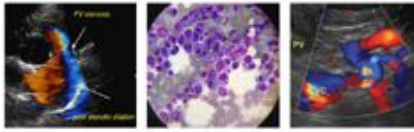
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There is no apparent lymphadenopathy noted in these images.

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**ULTRASONOGRAPHIC FINDINGS****Primary Findings**

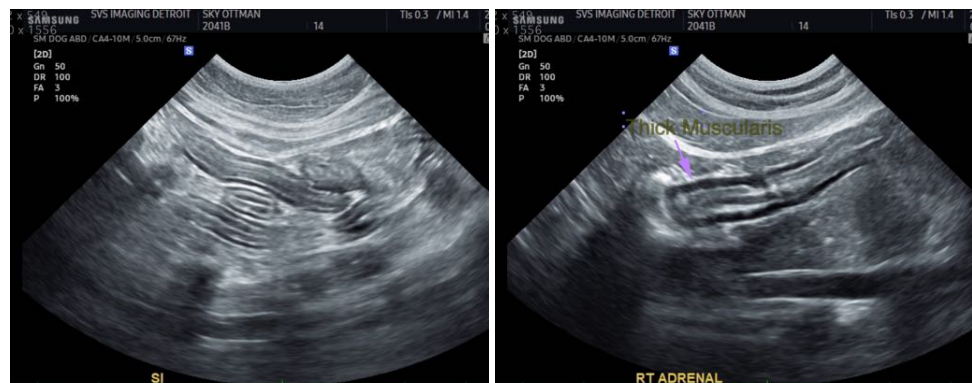
1. **Hypoechoic hepatomegaly** – This appearance is consistent with an acute hepatopathy or acute cholangiohepatitis. Infiltrative neoplasia (round cell neoplasia) should also be considered.
2. **Scalloped spleen** – can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.
3. **Gastrointestinal lymphoma (suspect) pattern** – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. Given the concurrent pathology noted, infiltrative neoplasia is considered more likely, but benign IBD cannot be ruled out without tissue sampling.

**Secondary Findings**

1. **Age related renal changes.**

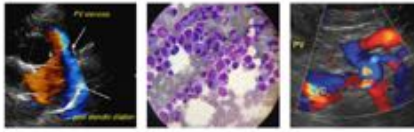
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the combination of the findings combined with the reported hyperglobulinemia infiltrative neoplasia such as lymphoma has to be a top differential. Infectious disease such as FIP and/or other benign causes of hyperglobulinemia cannot be ruled out, but are considered less likely. Therefore, a FNA of the spleen and liver is recommended if the patient's coagulation status is appropriate. If a diagnosis cannot be obtained cytologically ultimately biopsies of the GI tract may be warranted for a definitive diagnosis. In the meantime; 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. If further diagnostics are not possible then empirical therapies can include cobalamin supplementation unless cobalamin level is evaluated and supplementation is not warranted and Prednisolone +/- Chlorambucil if not contraindicated based on the patient's contraindications, comorbidities, etc. in addition to supportive/symptomatic management of gastrointestinal signs with antiemetics and gastroprotectants.



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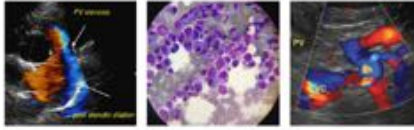
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Feline

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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**Beth Johnson, DVM DACVIM**

Beth.Johnson@SonoPath.com

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