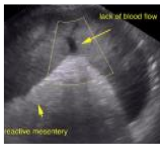
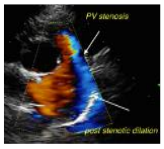
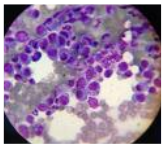
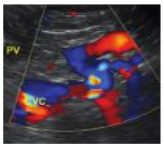
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**
Sophie Sandberg

**SPECIES**
Feline

**BREED**
DSH

**SEX**
Spayed Female

**AGE**
13 years

**WEIGHT**
7.16 lbs

**INTERPRETED BY**
Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

**IMAGING PERFORMED BY**
Velasco

**HOSPITAL NAME**
Bethany Family PC

**REFERRING VET**
Dr. Velasco

**INVOICE**
11043

**DATE**
6/8/22

## PRESENTING CLINICAL SIGNS

History: Patient is slowly losing weight, despite good appetite. Overall good energy. She is eating slightly differently, pushing food to the side, off the dish. Oral exam is WNL and patient had dentistry 10 months ago with extractions of the 307 and 407. HR elevated on exam.
Abnormal PE/Chem/CBC/UA Results:

February 2022 bloodwork: ALT 383. ALP 95. CBC normal. USG 1.025. No proteinuria. A small amount of hematuria. T4 normal. Most recent bloodwork: ALT 407. Hematocrit 28. Elevated T4 at 5.50. FIV negative. USG 1.025. 2+ proteinuria. There is blood in the urine. Feleuk negative. Heartworm pending. see attachments. Labs taken during exam yesterday.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly distended. A small amount of echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The left kidney is normal size (4.38 cm in length); with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. The cortex is mildly heterogenous. Severaly, varying-sized cortical cysts are present, some of which contain echogenic material. Hyperechoic to mineralized foci are observed. Trace pyelectasia is present (0.17 cm in the transverse plane). There is no evidence of hydroureter.

The right kidney is normal size (3.98 cm in length with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. The cortex is mildly heterogenous. Several, varying-sized cortical cysts are present, some of which contain echogenic material. Hyperechoic to mineralized foci are observed. There is no evidence of pyelectasia or hydroureter.

### *Adrenal Glands*

The left adrenal gland is normal size (0.31 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

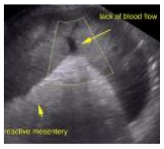
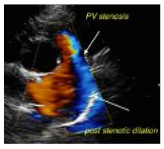
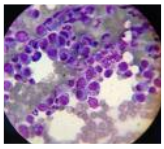
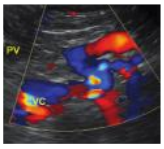
The right adrenal gland is normal size (0.51 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

### *Spleen*

The spleen is normal in size (0.74 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

### *Liver*

The liver is subjectively normal in size with slightly irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen. A 2.61 cm cyst is observed on the left side. The lesion causes slight capsular expansion. The remaining parenchyma is homogenous. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

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The gall bladder is moderately distended. The wall is normal in thickness. Luminal contents are mostly anechoic. The cystic and common bile ducts are visible/tortuous but not overtly dilated (0.22 cm in diameter).

### *Gastrointestinal*

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

### *Pancreas*

The left limb is visible/prominent with minimal deviation from the normal peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat and subtly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

### *Free Abdomen*

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

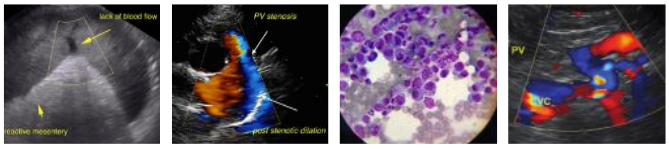
- Polycystic kidney disease with chronic, age-renal changes and dystrophic mineralization
- The pancreatic changes may be a normal variant for this patient or could be consistent with mild, chronic pancreatitis. Correlation with clinical findings is recommended.
- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, lymphoplasmacytic hepatitis, hepatic lipidosis, secondary to hyperthyroidism, infiltrative neoplasia (less likely)) cannot be excluded. Hepatic cyst, likely benign and incidental

### Secondary Findings

- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the elevated liver enzymes, consider hepatic tissue sampling (i.e., fine-needle aspirate or surgical bx). It should be noted that cytologic evaluation of the liver is best for assessing for lymphoma and hepatic lipidosis but is less useful in diagnosing inflammatory or other



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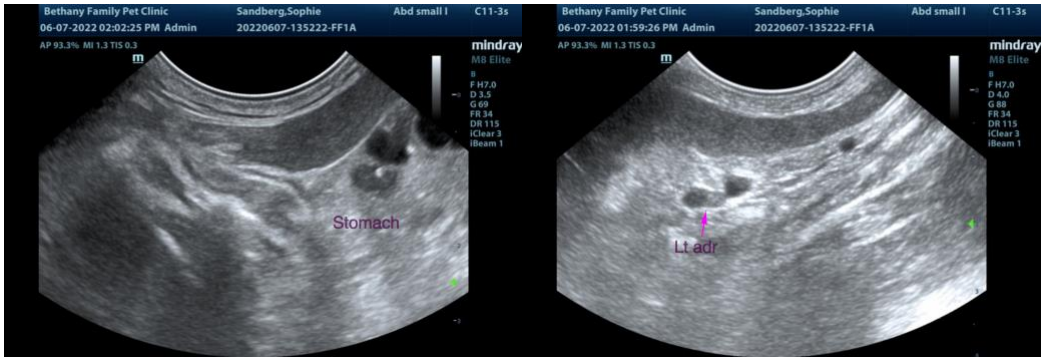
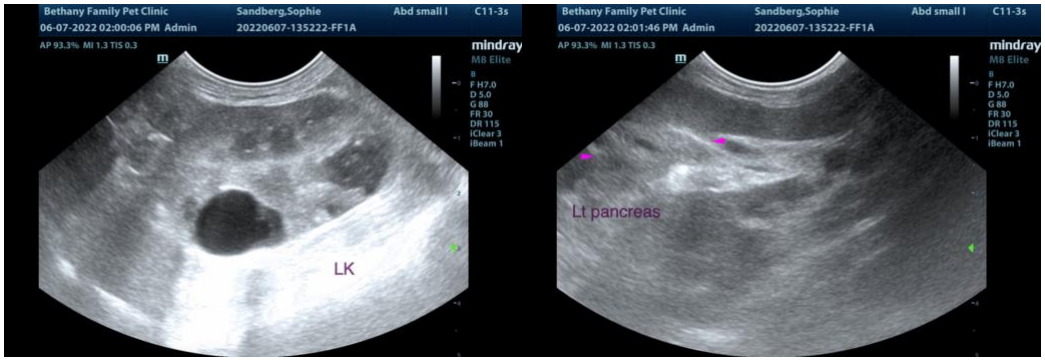
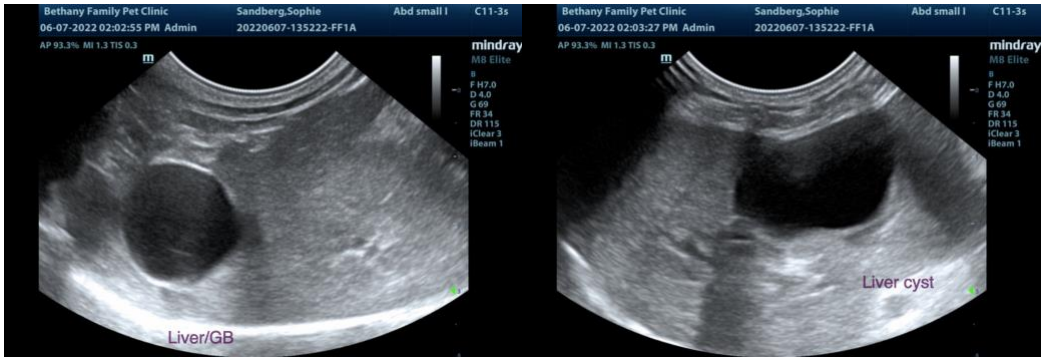
hepatopathies. If biopsies are pursued, aerobic and anaerobic bile cultures are also recommended. Given the weight loss, gastrointestinal biopsies may also be warranted.

- If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, +/-metronidazole, Denamarin). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.
- Other diagnostic considerations include the following:

1. GI panel including serum cobalamin and folate, TLI and PLI (send to Texas A&M).
2. Fecal evaluation for ova and Giardia
3. Thoracic radiographs to assess for occult neoplasia
4. Initiation of treatment for hyperparathyroidism



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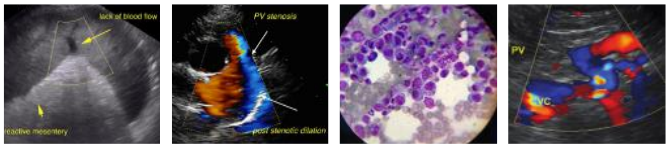

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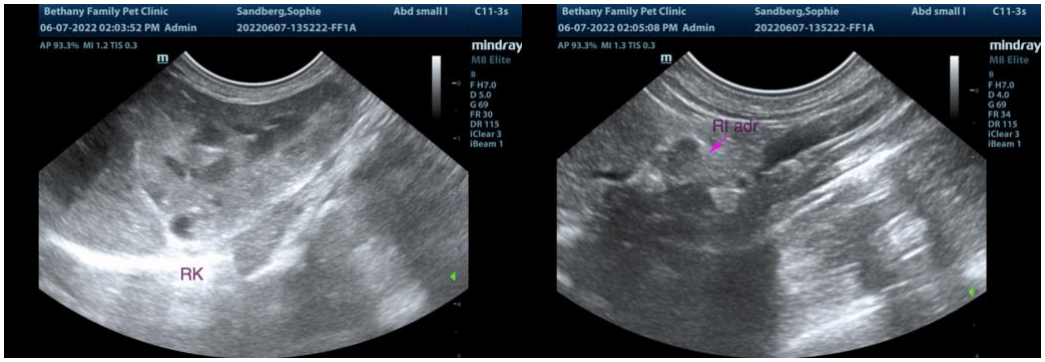



**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**Andrea Nicastro**, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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