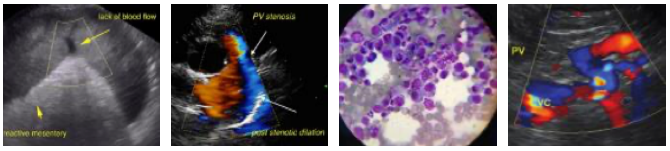
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

**PATIENT**
Sohpia O'Neil

**SPECIES**
Canine

**BREED**
Shepherd mix

**SEX**
Female, spayed

**AGE**
10 Yrs.

**WEIGHT**
58 lbs.

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

**IMAGING PERFORMED BY**
Dr. Velasco

**HOSPITAL NAME**
Bethay Family Pet Clinic

**REFERRING VET**
Dr. Velasco

**INVOICE**
14558

**DATE**
2/7/23

## PRESENTING CLINICAL SIGNS

History: Sophia has a hx of intermittent diarrhea for year, responsive to metronidazole and probiotic. In the last year, she's had more bouts of decreased appetite and has started to lose weight. She does also have anxiety issues. CBC/Chem/UA and T4 were WNL in July, but Cobalamin was at the low end of normal. Cobalaquin was initiated, along with stronger probiotic. Ab US at that time was WNL (read out by sonopath). Recently she stopped eating. Liver values spiked and she lost more weight. Immediately responsive to appetite stimulant only.

ALT 363, T-bili 0.4, SDMA 16.4

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface in the region of the apex is slightly irregular. The bladder lumen is mildly to moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is subjectively enlarged with normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal size (6.82 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

### *Adrenal Glands*

The left adrenal gland is normal size (0.76 cm at cranial pole) (0.61 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

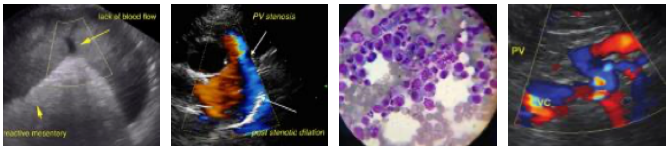
The right adrenal gland is normal size (1.24 cm at cranial pole) (0.62 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

### *Spleen*

The spleen is normal in size (2.53 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. The parenchyma is isoechoic relative to the spleen. An approximately 3.5 cm heterogeneous cavitated mass is observed on the left side, at the caudal aspect. The lesion causes slight capsular expansion. The remaining hepatic parenchyma is subtly mottled. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen



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is moderately distended. The wall is thin and smooth. A scant amount of echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

### *Gastrointestinal*

The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. 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. There is no evidence of an obstructive pattern.

### *Pancreas*

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

### *Free Abdomen*

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

## ULTRASONOGRAPHIC FINDINGS

**Primary Findings:**

- Left hepatic mass. Differentials include neoplasia (i.e., hemangiosarcoma, cystadenoma, cystadenocarcinoma), focal inflammatory process, granuloma, other. The lesion is similar to slightly larger compared to the previous sonogram. The diffuse hepatic parenchymal changes are non-specific and may be secondary to inflammatory disease, hepatotoxicosis (i.e., copper), reactive hepatopathy, infiltrative neoplasia (less likely), other hepatopathy.

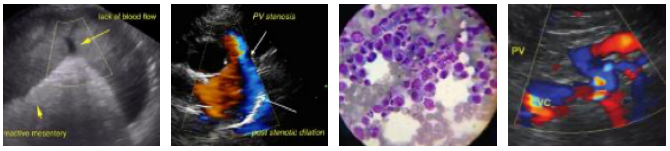
**Secondary Findings:**

- Bilateral, chronic age-related renal changes with subtle right dystrophic mineralization. Changes are similar to the previous sonogram.
- 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

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Surgical removal of the hepatic mass with submission for histopathology should be considered along with biopsies of the other liver lobes to assess for diffuse hepatic pathology. Also consider aerobic and anaerobic bile cultures as well as hepatic copper quantitation. Leptospirosis testing (i.e., blood and urine PCR, serology) should also be considered given the recent spike in liver enzymes.
- Regarding the chronic diarrhea, consider the following:

  1. A fecal evaluation for ova/Giardia, if not already performed.



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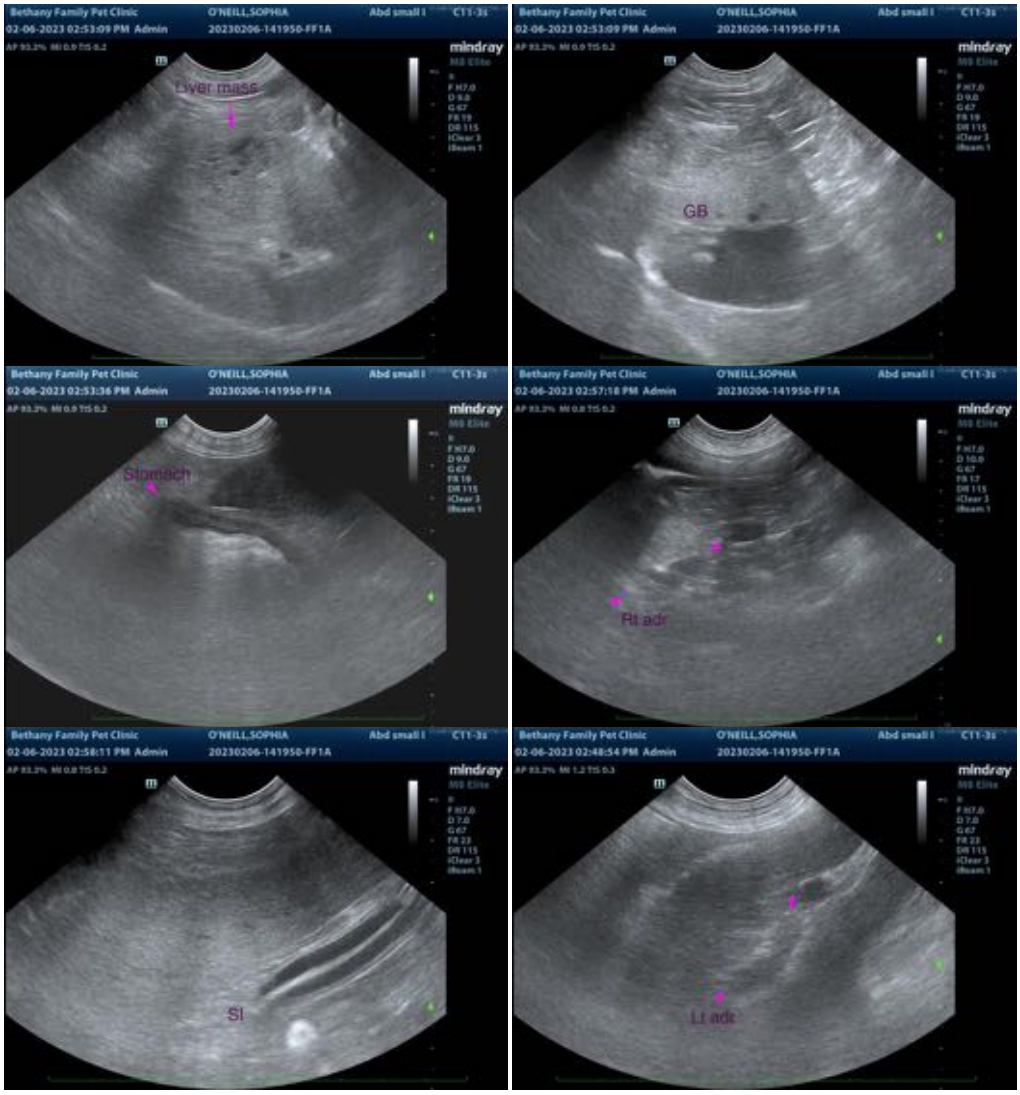
2. Prophylactic deworming with Fenbendazole.
3. Resting cortisol level.
4. 6-week limited antigen or hydrolyzed protein diet trial.
5. Consider initiation of a fiber supplement.
6. Ultimately, endoscopic or surgical GI biopsies may be necessary to get a definitive diagnosis.




**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.

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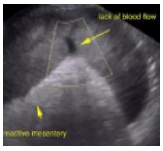
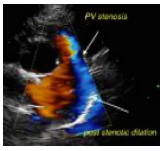
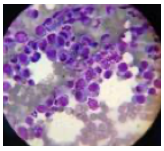
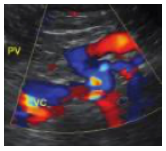

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