



**PATIENT**

Matcha Li

**SPECIES**

Canine

**BREED**

Pomeranian

**SEX**

Female, spayed

**AGE**

10 Yrs.

**WEIGHT**

10.82 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh

**HOSPITAL NAME**

West Hills AH

**REFERRING VET**

Dr. Cole

**DATE**

7/19/22

**INVOICE**

13753

**PRESENTING CLINICAL SIGNS**

History: Clinical Exam Findings: 10-year-old FS Pomeranian Recheck Abdominal ultrasound - Previous AUS done 6/2022 rec recheck in 4-6 weeks P presented in March for week-long history of inappetence, vomiting. Round, firm abdomen on PE, increased respiratory effort. Lethargic at home per owner. P improved but is now having bad days per o where she will not eat at all and is very lethargic. Previously diagnosed collapsing trachea and 3/6 heart murmur. Current Medications Cerenia, Gabapentin, ursodiol, metronidazole, Clavamox. Radiographic Findings Obesity, hepatomegaly Primary Question/Differential to Be Answered in This Exam Liver disease progressing? Abnormal PE/Chem/CBC/UA Results: ABNORMAL Laboratory Findings 3/2022 labwork: Na:K Ratio 26 (28-37), nRBC 6 (0-2), all other lab work WNL

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal in size (3.61 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is poor corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortex. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (3.92 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortex. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is normal size (0.36 cm at cranial pole) (0.44 cm at caudal pole) (1.55 cm in length); 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 (1.12 cm at cranial pole) (0.43 cm at caudal pole) (0.90 cm in length); 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 (0.78 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

*Liver*

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic



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relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is distended. The wall is mildly thickened (up to 0.16 cm) with a “double-walled” effect. A large amount of aggregated echogenic suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

**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 right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely iso echoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic 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:**

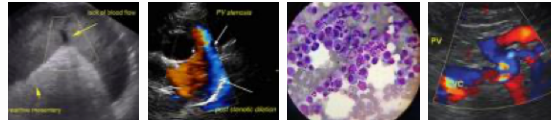
- The gallbladder sludge changes are consistent with a developing mucocele. Changes are similar to slightly progressed compared to the previous sonogram. The gallbladder wall changes could be consistent with cholecystitis, increased hydrostatic pressure, hypoalbuminemia, anaphylaxis (less likely), other. Correlation with the patient’s clinical history is recommended.
- Non-specific diffuse hepatopathy, likely benign in nature (i.e., vacuolar hepatopathy). However, correlation with the patient’s liver values is recommended.

**Secondary Findings:**

- Bilateral chronic renal changes with dystrophic mineralization.
- Age-related pancreatic remodeling +/- fibrosis. Low-grade chronic pancreatitis is also possible, particularly if the patient exhibits a positive Murphy’s sign.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Repeat baseline bloodwork including a CBC chemistry panel, urinalysis and T4 is recommended to assess for changes in overall metabolic function since March of 2022.



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- Continued Ursodiol therapy is recommended, particularly if a cholecystectomy is not to be pursued. If the patient's inappetence has worsened since initiation of antibiotic therapy, consider discontinuation of the antibiotics in case they are a contributing factor.
- Thoracic radiographs are recommended (if not already performed) to assess for occult disease in the chest.
- Orthopedic and neurologic examinations are also recommended (if not already performed) to assess for non-metabolic causes for the patient's clinical signs.
- Other considerations include an echocardiogram and baseline blood pressure measurement.





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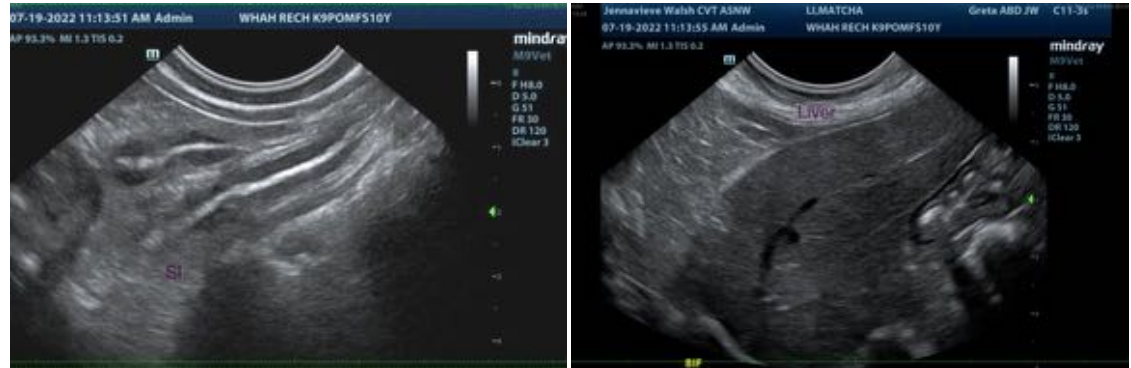
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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 ACVIM (Small Animal Internal Medicine)

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