



**PATIENT**

Drew Keenan

**PRESENTING CLINICAL SIGNS**

Drinking more water, owner feels has lost weight (1.5 lb since May 2022). He seems pickier about food.

**SPECIES**

Feline

Abnormal PE/Chem/CBC/UA Results: Bloodwork performed January 25th - elevated SDMA (16), elevated ALT (624), elevated AST (170), elevated ALP (246), elevated GGT (9), elevated total bilirubin (1), elevated unconjugated bilirubin (0.5), elevated conjugated bilirubin (0.5), elevated cholesterol (423), elevated Spec fPL (17.7). U/A performed January 25th - Sp Grav (1.033), Blood (25), Bilirubin (1), Urobilinogen (1), WBC (<1), RBC (<1)

**BREED**

DSH

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SEX**

Neutered Male

**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.

**AGE**

12 Years 9 Months

The right kidney is normal in size (4.3 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**WEIGHT**

15.5 Pounds

The left kidney is normal in size (4.3 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**Adrenal Glands**

The right adrenal gland is unable to be visualized, but the area is examined without evident adrenal gland pathology.

**IMAGING PERFORMED BY**

Dr. Samantha Hudgins

The left adrenal gland is normal in size (0.36 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

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Petvacx AH

**Spleen**

Spleen is subjectively large in size (1.2 cm thick) with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

**REFERRING VET**

Dr. Samantha Hudgins

**Liver**

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. In the mid to right caudal liver, there is a 3.8 cm x 3.9 cm, primarily cystic but septated mass. Visible vasculature and biliary tree appear normal without distension or congestion.

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**DATE**

2/7/23

The 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.

**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.



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The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

**SPECIES**

Feline

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

**BREED**

***Pancreas***

DSH

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.

**SEX**

Neutered Male

***Free Abdomen***

**AGE**

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

12 Years 9 Months

There is no apparent lymphadenopathy noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

15.5 Pounds

- **Coarse splenomegaly** – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- **Hyperechoic hepatomegaly** – This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- **Feline biliary cystadenoma** – In a senior cat, this liver lesion is most consistent with a/multiple benign biliary cystadenoma(s). Malignancy cannot be ruled out, especially given this patient's reported weight loss and increased liver enzymes.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

A fine needle aspirate of the liver mass is recommended for both cytology as well as culture and sensitivity. However, these lesions are often benign and typically non-clinical. Therefore, the diffuse hepatic and splenic parenchyma changes are as concerning, and so additionally, fine needle aspirates of the diffusely hyperechoic liver as well as the spleen are recommended (if patient's coagulation status is appropriate).

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Additionally, given the PU/PD, 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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Given the reported weight loss and pending cytology results, additional workup considerations could include T4, free T4, and a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory as potential next steps.



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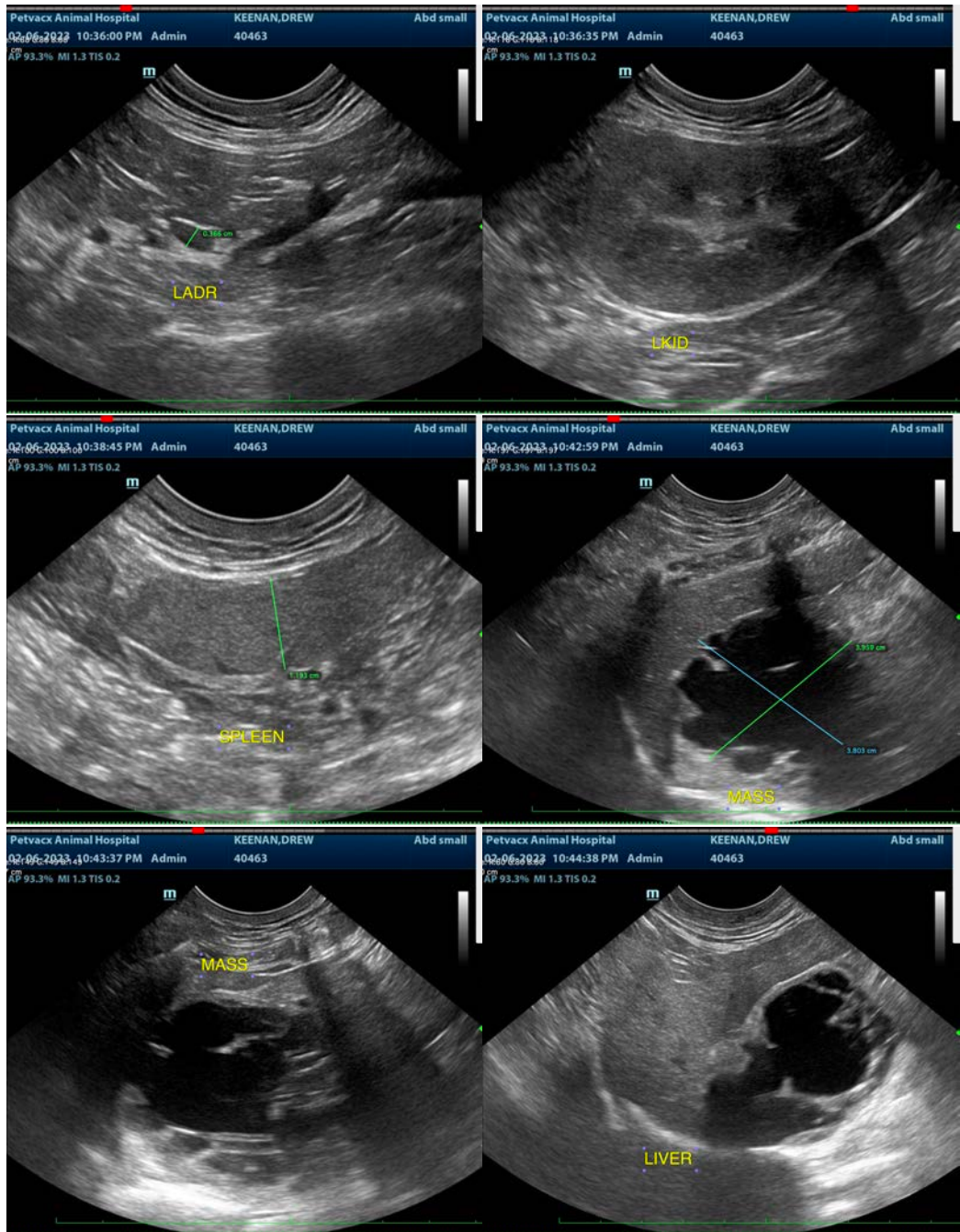
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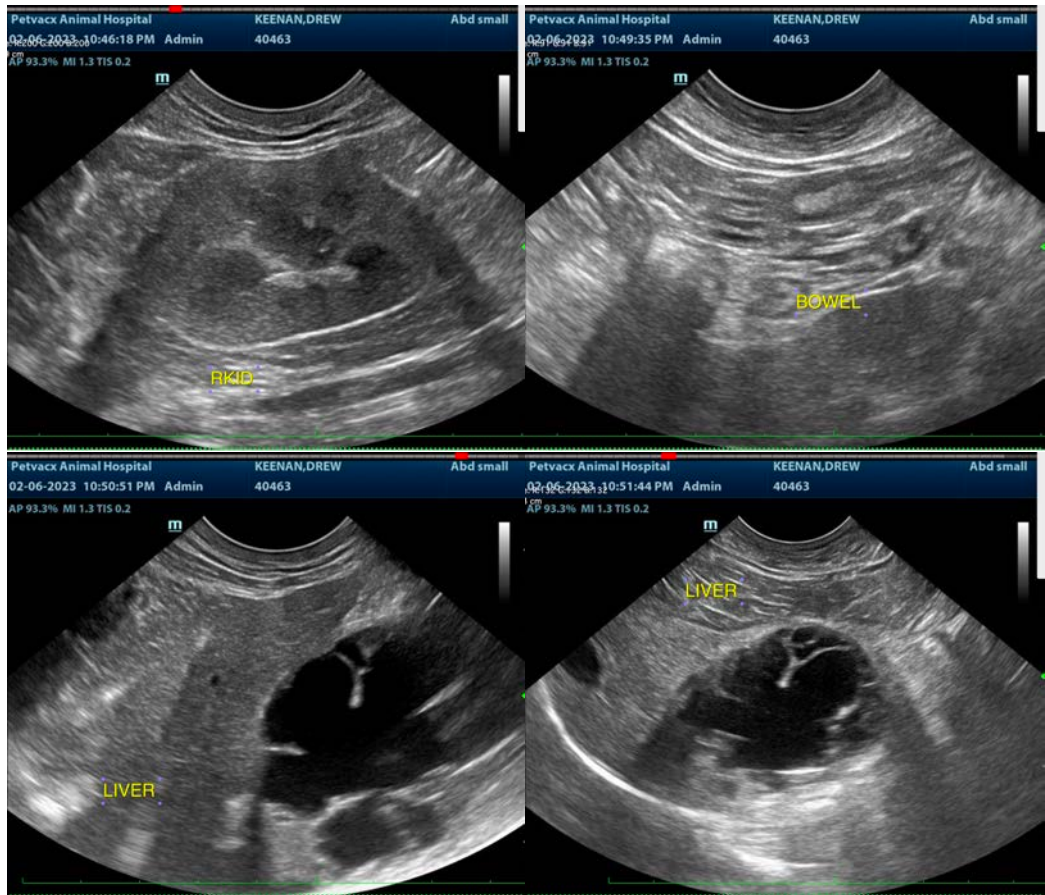
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
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