

**DATE PRESENTING CLINICAL SIGNS**

8.21.2023 Hobbes was adopted as an adult cat about 4 years ago. In 2020 was diagnosed with diabetes; has been on Vetsulin 4 units BID. Was seen here yesterday for vomiting. Ketones negative at that time. Had SQ fluids and outpatient treatment. Returned today; is more lethargic, still not eating, and has vomited more.

**PATIENT**

Hobbes Hudak

Current Medications: Gabapentin, Humulin R, Buprenorphine, Cerenia, Ondansetron.  
 Lab Results: Ketones – Moderate, BUN – 99, Creatinine - 2.2, ALT – 456, ALKP – 154.  
 Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Feline

Sedation: Not required to complete full diagnostic ultrasound.  
 Stat Report: Not requested.

Imaging Performed By: Andi Parkinson, BS, RDMS.

**BREED****ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

DMH

**Urinary System**

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is distended. A small amount of suspended echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone is normal.

**SEX**

Neutered Male

The left kidney is normal in size (4.78 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. The cortex is hyperechoic relative to the spleen. There is moderate loss of corticomedullary distinction. Small focus of mineralization are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

**AGE**

7/1/2009

**WEIGHT**

11.4 lbs

The right kidney is normal in size (4.46 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. The cortex is hyperechoic relative to the spleen. There is moderate loss of corticomedullary distinction. Small foci of mineralization are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

**INTERPRETED BY****Adrenal Glands**

The left adrenal gland is enlarged (0.71 cm width) with rounded peripheral contours. Glandular echogenicity and detail are normal. Surrounding vasculature appears normal.

The left adrenal gland is enlarged (0.61 cm width) with rounded peripheral contours. Glandular echogenicity and detail are normal. Surrounding vasculature appears normal.

**Spleen**

The spleen is normal in size (0.85 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 prominent to enlarged, with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and homogenous in appearance. No distinct focal lesions are observed. Intrahepatic biliary stones are visualized. Hepatic vasculature is of normal volume with no evidence of congestion.

**HOSPITAL NAME**

Animal EH

**REFERRING VET**

Dr. Martinoli

**INVOICE**

14190

The gall bladder is moderately distended. The wall is mildly thickened (up to 0.16 cm). A small amount of echogenic debris is observed within the lumen. The cystic and common bile ducts are tortuous/dilated. The common bile duct measures 0.42 cm in diameter at the distal aspect. The cystic and common bile duct walls are mildly thickened. A small amount of sand is observed within the lumen. The duodenal papilla is mildly thickened (0.56 cm in diameter).

### ***Gastrointestinal***

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly gas-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. There is disruption in the normal 1:3 muscularis: mucosal ratio in most segments. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

### ***Pancreas***

The left limb and base are enlarged with irregular peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat. A 1.60 x 0.92 cm cyst is observed in the left limb. The pancreatic duct is mildly dilated (up to 0.62 cm in diameter). Surrounding mesentery is hyperechoic.

### ***Free Abdomen***

Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy. Intrahepatic biliary stones are present.
- The gallbladder and cystic/common bile duct wall changes are most consistent with cholecystitis/cholangitis. Sand is observed in the cystic and common bile ducts.
- The pancreatic changes are consistent with pancreatitis (rule out acute versus chronic active). Parenchymal cyst in the left limb. Adjacent peritonitis is present.

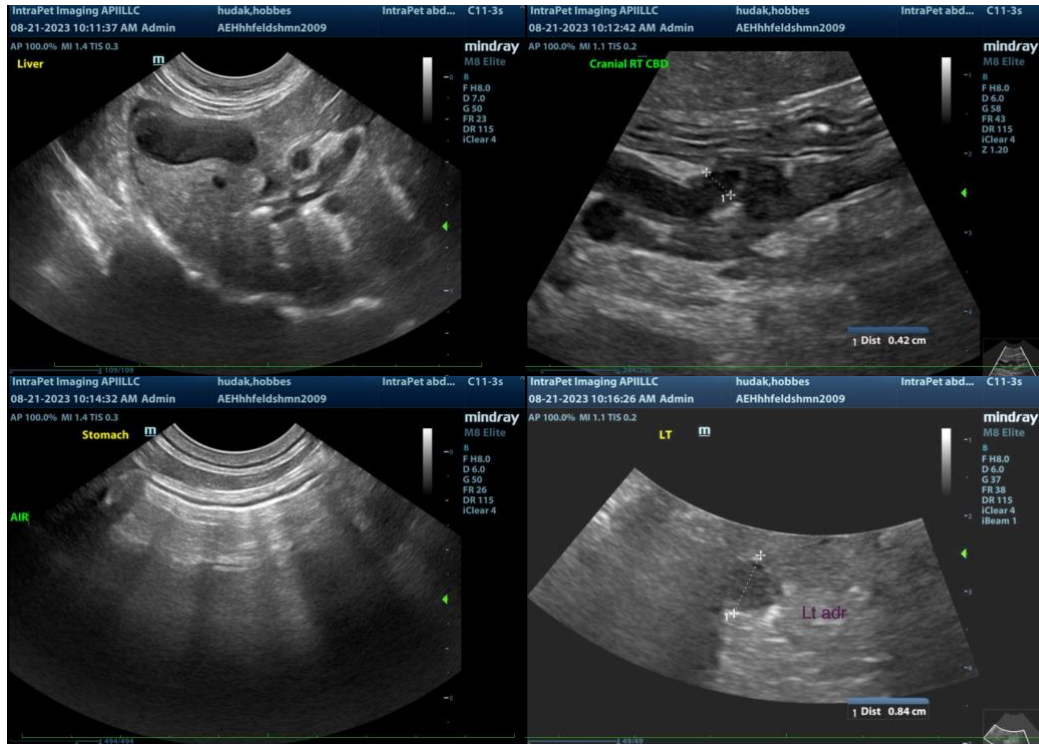
### **Secondary Findings**

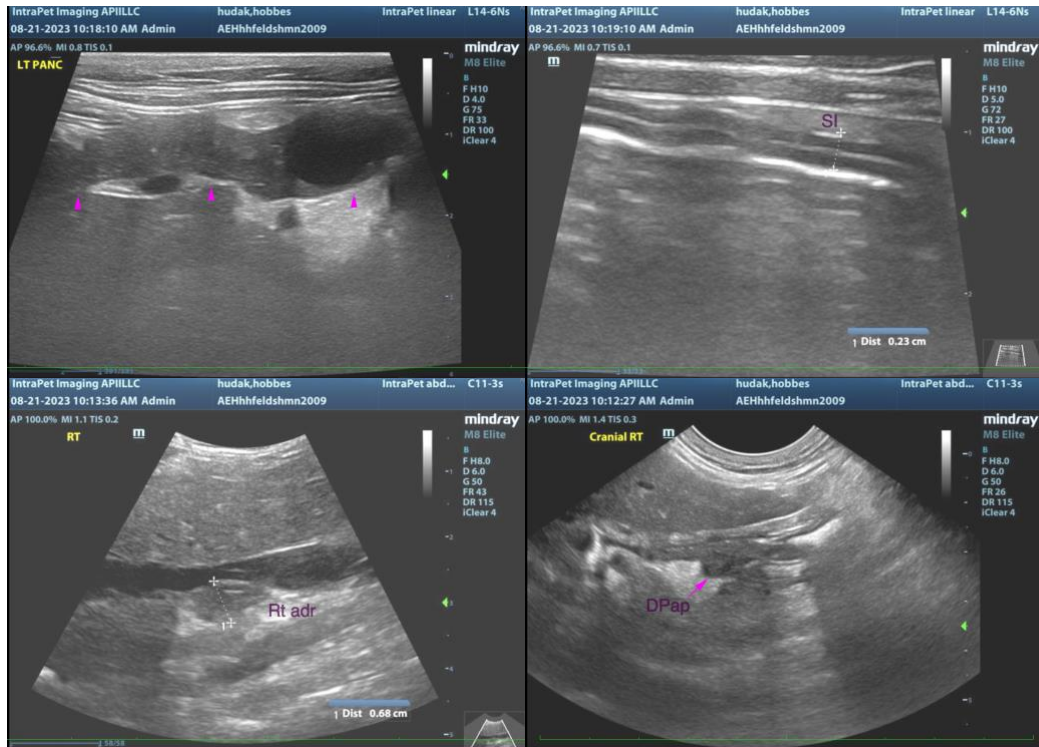
- Bilateral chronic renal changes with nonobstructive nephrolithiasis
- The small intestinal wall changes are consistent with inflammatory bowel disease with some potential for emerging lymphoma.
- The bilateral adrenomegaly may be a normal variant for this patient or may be secondary to stress, hyperplastic change or less likely, bilateral tumors.

\*Given the sonographic changes, "triaditis" is a consideration in this patient.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Texas GI panel including serum cobalamin and folate, TLI and PLI is recommended to further assess for maldigestion/malabsorption and pancreatic disease.
- Consider a fine-needle aspirate of the liver (if clotting status is normal). A 25-gauge needle should be used. If the cytology results are inconclusive, hepatic biopsies with aerobic and anaerobic bile cultures may be warranted.
- Given the patient's clinical signs, symptomatic care for pancreatitis is recommended, along with empirical treatment for bacterial cholangiohepatitis (i.e., broad-spectrum antibiotics, Denamarin).
- Three-view thoracic radiographs should also be considered to assess cardiopulmonary status.
- Given the azotemia, a urinalysis with culture and sensitivity should be considered along with a baseline blood pressure measurement.





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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