

**DATE PRESENTING CLINICAL SIGNS**

8/15/22

**PATIENT**

Harley Stanson

Harley is a long term hyperthyroid patient that has been well controlled with liquid methimazole until his most recent lab work performed on 8/5/22. This lab work also reveals an acute increase in ALT, ALP, bilirubin, and calcium. The owner reports that Harley has been acting abnormally at home and has had a decreased appetite/thirst along with weight loss and ataxia. His most recent PE revealed a grade 3/6 murmur, but the remainder of the exam was within normal limits.

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

Current Medications: Methimazole 5 mg/mL: 1.2 mL PO BID. Increased from 0.9 mL PO BID based on lab work results on 8/5/22

Lab Results: AST (SGOT) 120 (10-100), ALT (SGPT) 852 (10-100), Alk Phosphatase 335 (6-102), GGTP 6 (1-10), Total Bilirubin 0.5 (0.1-0.4) Calcium 12.6 (8.2-10.8), T4 10.0 (0.8-4.0) mg/dL HIGH, CBC within normal limits.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Patient sedated with Torbugesic and Midazolam.

Stat Report: Not requested.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE**

4/11/06

**WEIGHT**

9.6 Pounds

**INTERPRETED BY**Beth Johnson, DVM  
DACVIM**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.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. The left kidney measures 2.78 cm. The right kidney measures 3.76 cm. Non-obstructive areas of mineralization/nephroliths are noted in both kidneys.

**IMAGING PERFORMED BY**

Andi Parkinson RDMS

**HOSPITAL NAME**

Everhart Vet Hospital

**Adrenal Glands**

The areas of the adrenal glands are examined without evident pathology.

**Spleen**

Spleen is subjectively large in size 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.

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**REFERRING VET**

Dr. Kerr

**INVOICE**

40453

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.

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.

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

### ***Pancreas***

Pancreas is prominent in size with swollen irregular contour. Parenchyma is heterogenous characterized by hyperechoic tissue remodeling intermixed with ill-defined hypoechoic nodules. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### ***Free Abdomen***

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

Mesenteric lymphadenopathy is noted, differentials for which include both reactive lymphadenopathy as well as infiltrative neoplasia.

## **PRIMARY FINDINGS**

- **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 (leave amyloidosis out if canine) as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- **Pancreatic nodular hyperplasia** – Infiltrative neoplasia cannot be ruled out but is considered less likely.
- **Mesenteric lymphadenopathy** – reactive versus infiltrative neoplasia.

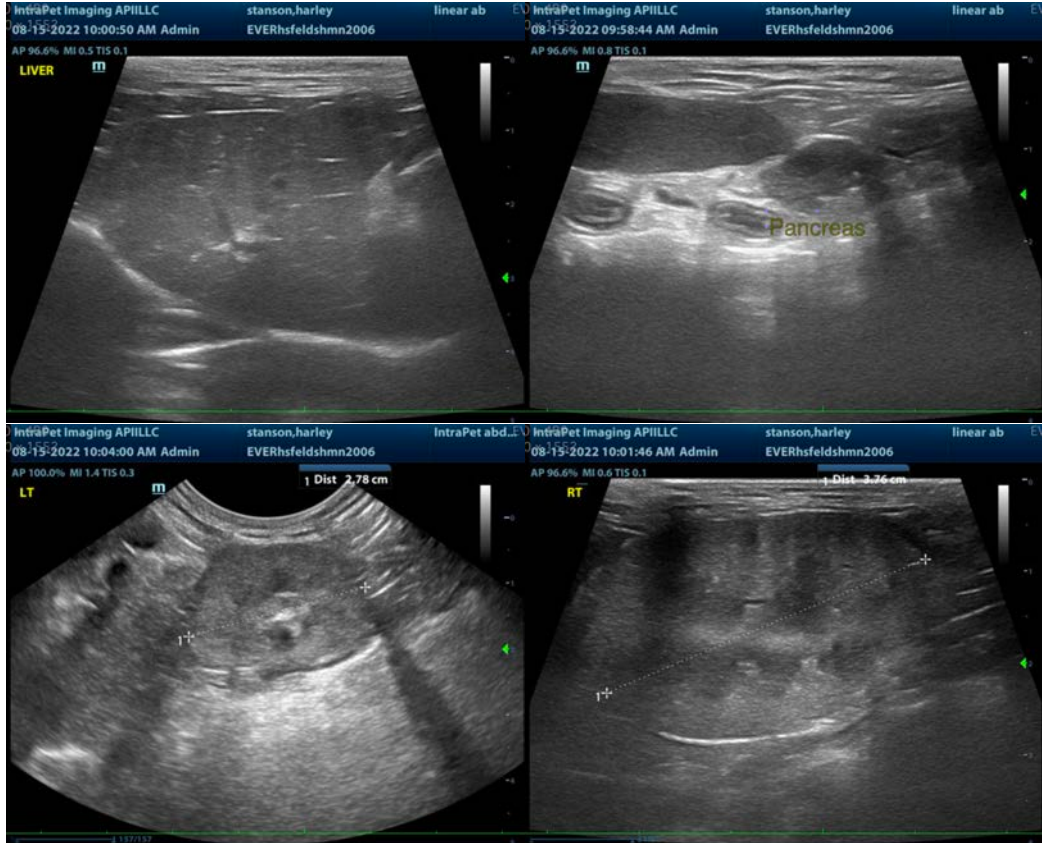
## **SECONDARY FINDINGS**

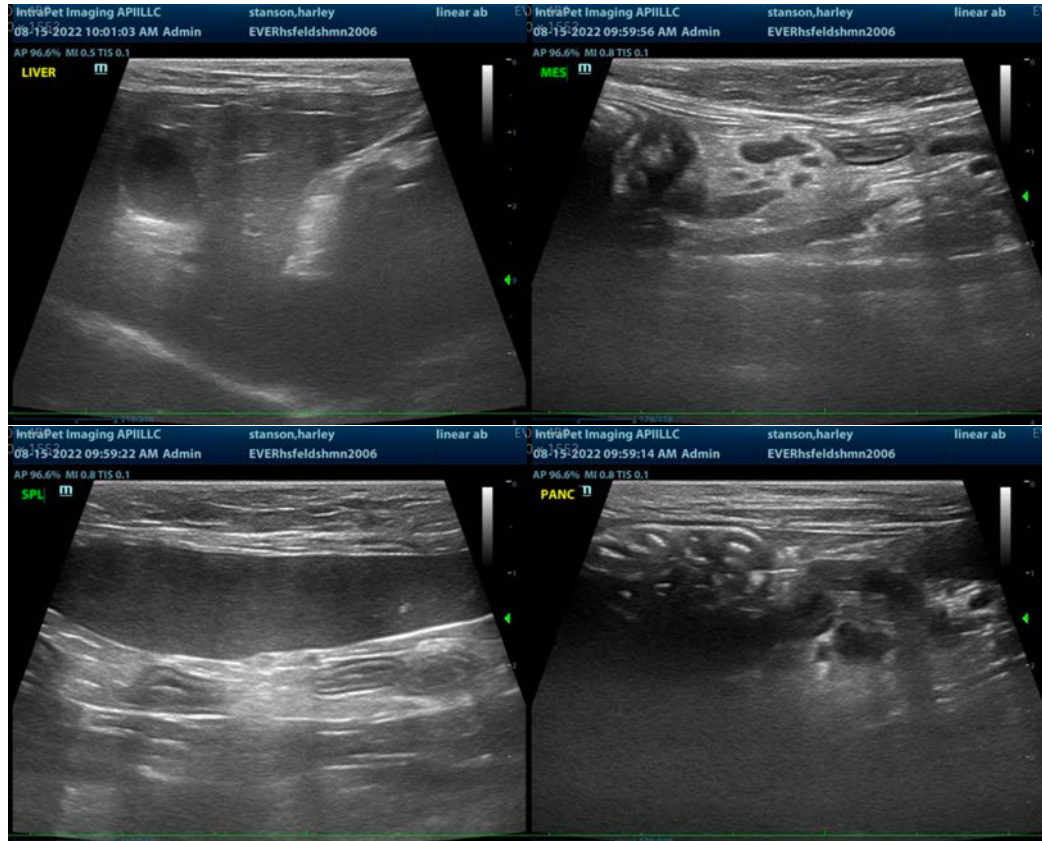
- Age related kidney changes with bilateral non-obstructive nephrolithiasis noted.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the hypercalcemia and organomegaly combined with the recent laboratory changes, recommendations include a malignancy panel for further investigation of the hypercalcemia to include PTH, PTHrP, and ionized calcium, as well as a fine needle aspirate of the spleen +/- the liver, especially if the hypercalcemia trends toward hypercalcemia of malignancy with further workup.

Alternatively, if a more conservative approach is elected, then improved regulation of the hyperthyroidism is recommended with recheck chemistry panel in a euthyroid state to see if liver enzymes, etc. have improved. A blood pressure is recommended if not recently evaluated.





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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