

**DATE PRESENTING CLINICAL SIGNS**

9/21/21

Elevated ALKP, Cushing's ruled out.

**PATIENT**

Rocky Hart

Lab Results: Elevated ALKP  
 Date of Previous IntraPet Ultrasound: No previous  
 Sedation: Sedation not necessary.  
 Stat Report: Not indicated.

**SPECIES**

Canine

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

Shih Tzu

**Urinary System**

The urinary bladder is moderately distended. The wall in the region of the apex is mildly thickened (up to 0.40 cm) with a slightly irregular mucosal surface. The wall tapers to a normal thickness as it extends throughout the urinary bladder neck. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

**SEX**

Male, neutered

The prostate is normal in size (0.83 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

**AGE**

2007

The left kidney is normal in size (4.08 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

**WEIGHT**

6.62 kg.

The right kidney is normal in size (4.16 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild to moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

**INTERPRETED BY**

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 Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)

**Adrenal Glands**

The left adrenal gland is enlarged (0.73 cm at cranial pole) (0.66 cm at caudal pole) (2.07 cm in length) with a normal shape and smooth peripheral contours. A 0.89 x 0.68 cm hyperechoic nodule/area is observed at the cranial pole. Glandular echogenicity and detail of the caudal pole are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**HOSPITAL NAME**

Banfield Towson

The right adrenal gland is mildly enlarged (0.75 cm at cranial pole) (0.84 cm at caudal pole) (2.21 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.

**REFERRING VET**

Dr. Washington

**Spleen**

The spleen is normal in size (1.19 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.

**INVOICE**

12238

**Liver**

The liver is subjectively prominent in size with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen with a few ill-defined heterogeneous areas. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is distended. The wall is normal in thickness. A moderate amount of aggregated echogenic partially dependent to suspended debris/sludge 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 isoechoic 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 diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- The gallbladder sludge may be secondary to cholestasis, fasting or less likely, a developing mucocele.
- Mild bilateral adrenomegaly.

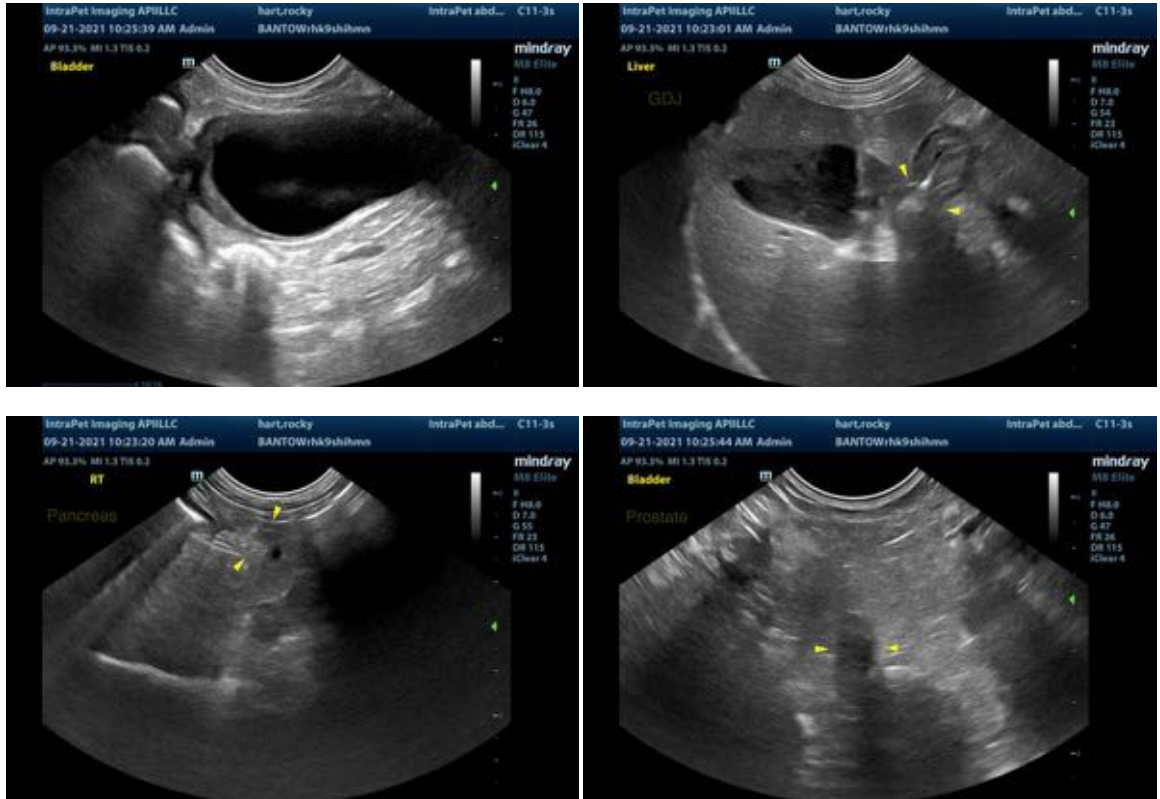
### **Secondary Findings:**

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Bilateral age-related renal changes with dystrophic mineralization.
- The urinary bladder wall changes could be secondary to cystitis or may be artifactual due to lack of full repletion.

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

- Serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If values continue to increase, a repeat abdominal ultrasound +/- more advanced testing (i.e., hepatic tissue sampling) may be warranted.
- If the patient develops signs of Cushing's disease in the future, repeat testing (i.e., low-dose dexamethasone suppression test or ACTH stimulation test) may be warranted.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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