

**DATE PRESENTING CLINICAL SIGNS**

5/2/22

Pt presented for annual wellness on 4/18, routine labs showed ALP elevation. ALP elevation has been present for years, recent significant increase, no clinical signs.

PATIENT

Lizzie Markowski

Current Medications: Starting Denamarin 4/19.
 Lab Results: ALP 2329, ALT 138. USG 1.041, 3+ proteinuria, inactive sediment.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: Not requested.

SPECIES

Canine

Imaging Performed By: Andi Parkinson, RDMS.

BREED

Shih Tzu

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended. The wall is normal in thickness with a relatively smooth mucosal surface. Several tiny cystic calculi are observed at the level of the trigone and extending into the urinary bladder neck/proximal urethra. The proximal urethral lumen is not overtly dilated.

SEX

Female, spayed

The left kidney is normal size (4.63 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. Several non-obstructive nephroliths are present. There is no evidence of pyelectasia, infarcts or hydroureter.

AGE

11/16/2011

The right kidney is normal size (5.07 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

WEIGHT

17.81 lbs.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.56 cm at cranial pole) (0.65 cm at caudal pole) (2.53 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.

INTERPRETED BY

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

The right adrenal gland is normal size (0.60 cm at cranial pole) (0.46 cm at caudal pole) (2.67 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.

HOSPITAL NAME

Everhart VH

Spleen

The spleen is normal in size (1.11 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.

REFERRING VET

Dr. Menefee

Liver

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic 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 portal vein: caudal vena cava ratio is approximately 1:1. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of partially dependent echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

INVOICE

13297

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/prominent with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to surrounding omental fat. No focal lesions are observed. The pancreatic duct is not overtly dilated.

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:

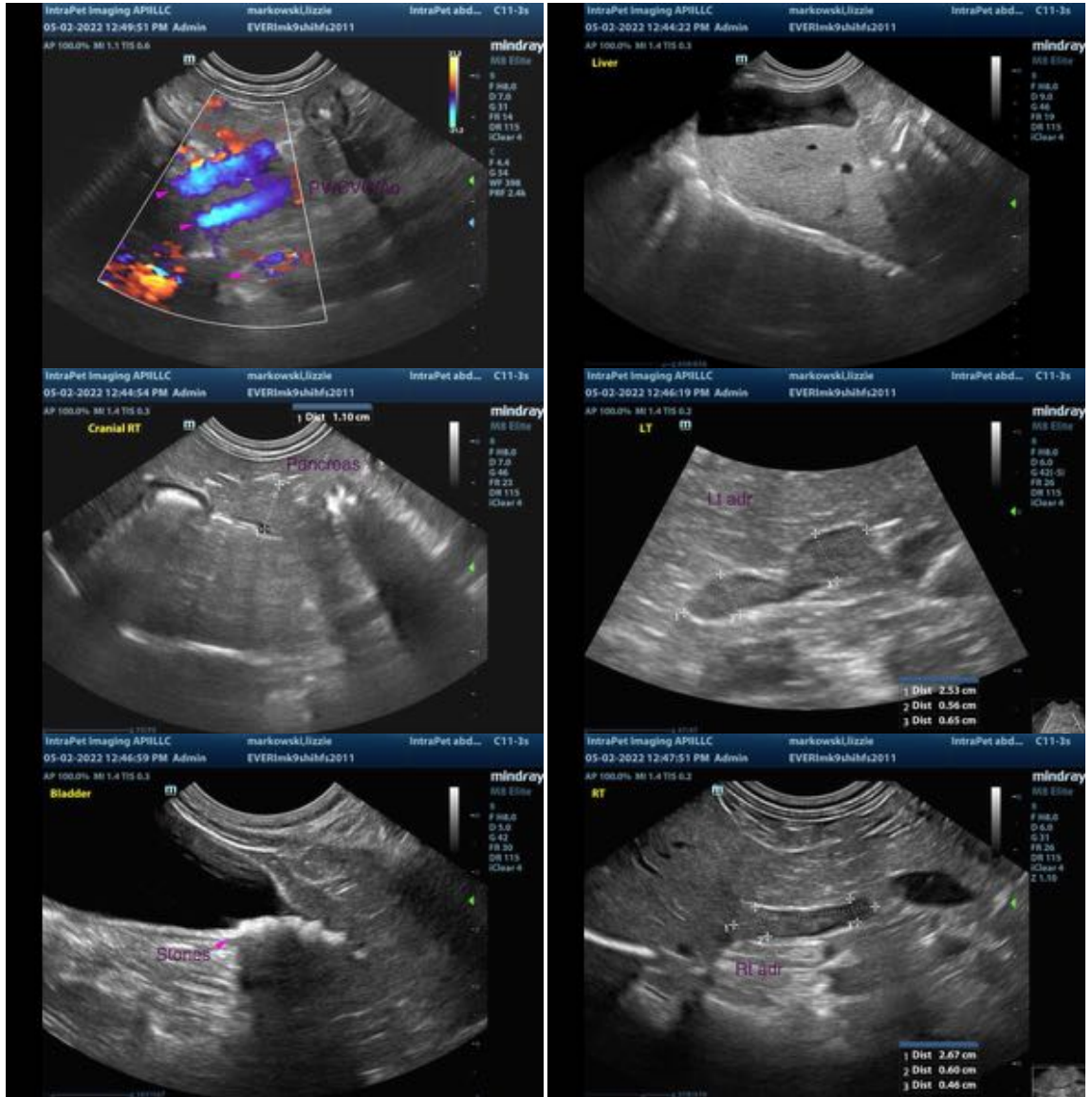
- Suspected benign hepatopathy. Top differentials include vacuolar hepatopathy and regenerative nodular hyperplasia. Given the normal ALT, inflammatory disease is considered unlikely. Infiltrative neoplasia (i.e., lymphoma) is possible but also considered less likely.
- Mild left adrenomegaly.
- Cystic/proximal urethral calculi.

Secondary Findings:

- Bilateral chronic renal changes with non-obstructive nephrocalcinosis.
- The pancreatic changes may be a normal variant for this patient or may be secondary to mild chronic pancreatitis. Correlation with the patient's clinical history is recommended.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Continued monitoring (i.e., every 2-3 months) of the patient's liver values is recommended. If values continue to increase, a repeat ultrasound +/- hepatic tissue sampling may be warranted.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop in the future.
- Given the presence of proteinuria, a UPC is recommended.
- A cystotomy with stone removal, analysis and culture is recommended. Alternatively, medical dissolution of the stones can be considered with a prescription renal diet and broad-spectrum antibiotic therapy. If there is no improvement in stone size after 4 weeks of therapy, a cystotomy should be reconsidered. If the stone size is reduced, continue therapy until complete dissolution has been achieved.



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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