

**DATE PRESENTING CLINICAL SIGNS**

5/31/22

P was seen 5/17/22 due to pain/discomfort with secondary to MPLs and lumbar spinal injury/arthritis. At this time, it was noted p was overweight and mild PU/PD present. Bloodwork/Urine was initially evaluated, then LDDS test indicating Cushing's.

**PATIENT**

Muffin White

Current Medications: Carprofen 25mg BID, Gabapentin 50mg BID, EpiOtic ears SID, Surolan ear SID.  
Lab Results: ALKP 200 (5-131), BUN/Creat Ratio 34 (4-27), Na/K Ratio 26 (27-38), Chol 472 (92-324), Trig 990 (29-291), PLT 742 (170-400), Mono 1080 (0-840). Urine protein 4+, Urine Microalbumin >30. LDDS Test: Pre 6.3, Post 4hr 1.7, Post 8hr 1.8 = Hyperadrenocorticism; however, could not differentiate AT or PDH. USG 1.035

**SPECIES**

Canine

Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

**BREED**

Yorkie

Imaging Performed By: Stephanie Pearce RDCS, RVT.

**SEX**

Female, spayed

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

**AGE**

11/22/2009.

The left kidney is normal in size (3.70 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. Trace pyelectasia is present. There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

11 lbs.

**INTERPRETED BY**

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

The right kidney is normal in size (3.36 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. Renal vasculature is normal.

**HOSPITAL NAME**

Fullerton AH

**Adrenal Glands**

The left adrenal gland is normal size (0.48 cm at cranial pole) (0.48 cm at caudal pole) (1.55 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. Stock

The right adrenal gland is normal size (0.54 cm at cranial pole) (0.43 cm at caudal pole) (1.40 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.

**INVOICE****Spleen**

The spleen is normal in size (0.82 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 in size with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen. A 1.58 x 1.53 cm anechoic cyst is observed adjacent to the gallbladder, on the right side. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen

is moderately distended. The wall is thin and smooth. A small amount of aggregated echogenic partially dependent 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 hyperechoic 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:**

- Suspected benign diffuse hepatopathy. Top differentials include vacuolar hepatopathy and/or regenerative nodular hyperplasia. Hepatic cyst, likely incidental.

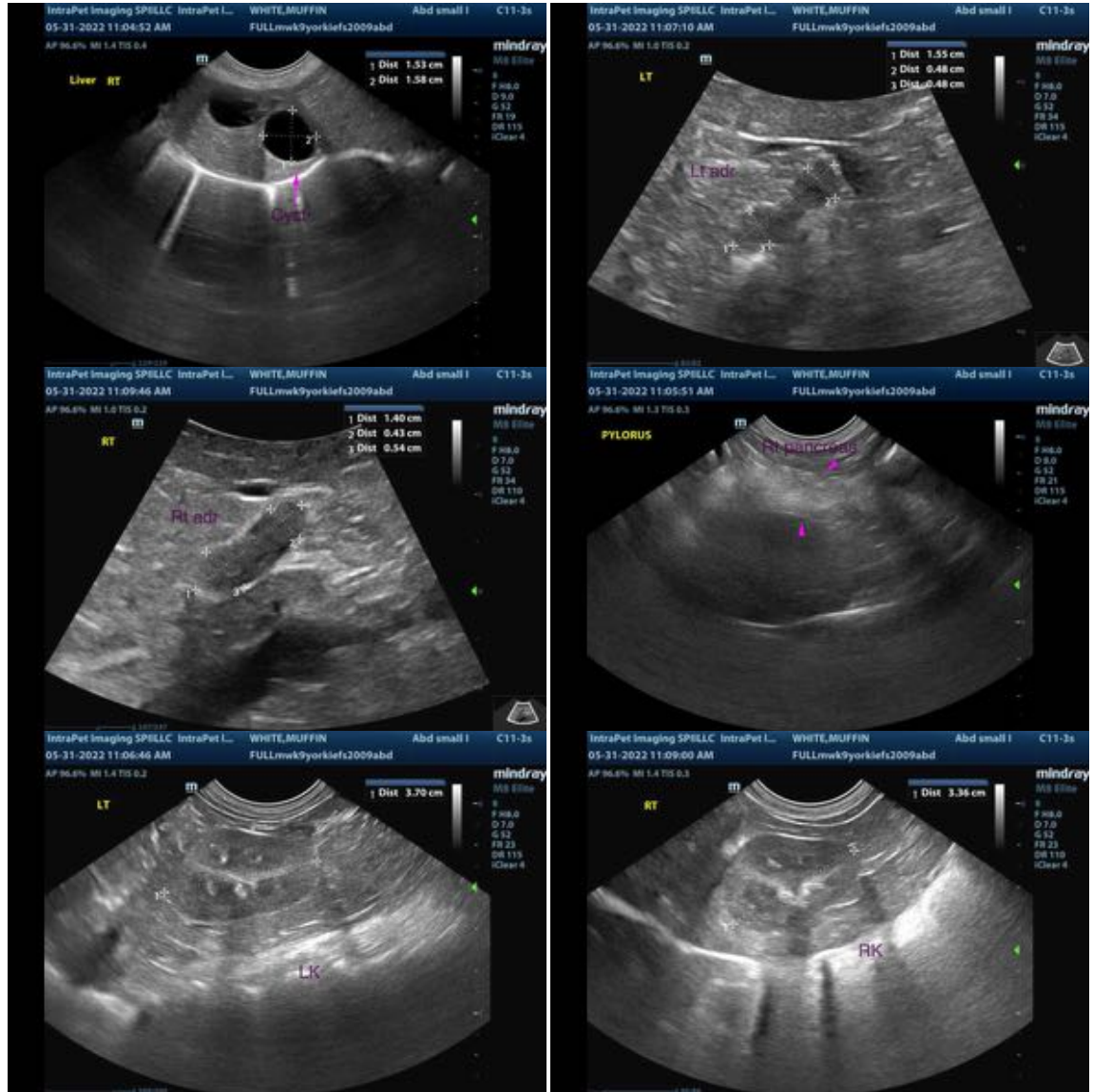
### **Secondary Findings:**

- Age-related pancreatic remodeling/fibrosis. Mild chronic pancreatitis may also be present, particularly if the patient exhibits a positive Murphy's sign.
- Bilateral chronic renal changes with dystrophic mineralization.

\*Given that the patient's urine specific gravity is 1.035, true PU/PD may not be present. Given this finding and the normal sized adrenal glands, the benefits of treatment of medical treatment for Cushing's disease should be weighed against the potential risks.

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

- Given the proteinuria, a UPC is recommended +/- a baseline blood pressure measurement.
- Consider holding off on medical treatment for Cushing's disease at this time if clinical signs are mild and not interfering with the patient's quality of life.



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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