



## PATIENT PRESENTING CLINICAL SIGNS

**Abbie Both**  
History: Check for pheochromocytoma or other, cause of systemic hypertension. Enalapril 5mgs BID, Levo 0.1 mgs BID. BP today 154/103.

**SPECIES**  
Abnormal PE/Chem/CBC/UA Results: Blood work pending, but in May was unremarkable.

## Canine ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

**BREED**  
Cavachon  
The **urinary bladder**, trigone, and pelvic urethra are normal in thickness and the mucosal surface in the region of the apex is slightly irregular. The bladder lumen is mildly to moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

**SEX**  
Spayed Female  
The **left kidney** is normal in size (3.45 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild to moderate loss of corticomedullary distinction. A 0.39 cm cortical cyst is observed at the lateral aspect. Several hyperechoic shadowing diverticular foci are observed. Mild pyelectasia is present (0.33 cm in the longitudinal plane). A few small, nonobstructive nephroliths are visualized. There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

**AGE**  
15 years  
The **right kidney** is normal in size (3.75 cm in length) with a slightly irregular shape. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present. A few small, nonobstructive nephroliths are visualized. There is no evidence of hydronephrosis. Renal vasculature is normal.

**WEIGHT**  
13.2 lbs  
**Adrenal Glands**  
The **left adrenal gland** is normal size (0.49 cm at cranial pole) (0.53 cm at caudal pole) (1.71 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,  
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ACVIM (*Small Animal  
Internal Medicine*)

The **right adrenal gland** is mildly enlarged (0.42 cm at cranial pole) (0.60 cm at caudal pole) (1.47 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.

## IMAGING PERFORMED BY

Kelly Vazquez

### Spleen

The **spleen** is normal in size (1.14 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.

## HOSPITAL NAME

Parsippany AH

### Liver

The **liver** is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogeneous and mottled in appearance. A 1.19 cm hypoechoic nodule is visualized. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

## REFERRING VET

Dr. Lina Dulude

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A scant amount of echogenic debris is adhered to the luminal surface. The cystic and common bile ducts are normal/not seen.

## INVOICE

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### 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

## DATE

6.24.22

normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The wall of the descending colon is moderately thickened (up to 0.59 cm) with retention of the normal layering pattern. There is no evidence of an obstructive pattern.

#### **Pancreas**

The right limb is visible/prominent with minimal deviation from the normal peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated. The mesentery effacing the serosal surface is slightly hyperechoic.

#### **Free Abdomen**

There is no evidence of free fluid. The abdominal **lymph nodes** are normal/not visible.

### **ULTRASONOGRAPHIC FINDINGS**

#### **Primary Findings**

- Bilateral, chronic, age-related renal changes with nonobstructive nephrolithiasis and mid pyelectasia.
- The mild right adrenomegaly may be a normal variant for this patient or may represent hyperplastic change. Emerging neoplasia is possible but considered less likely.

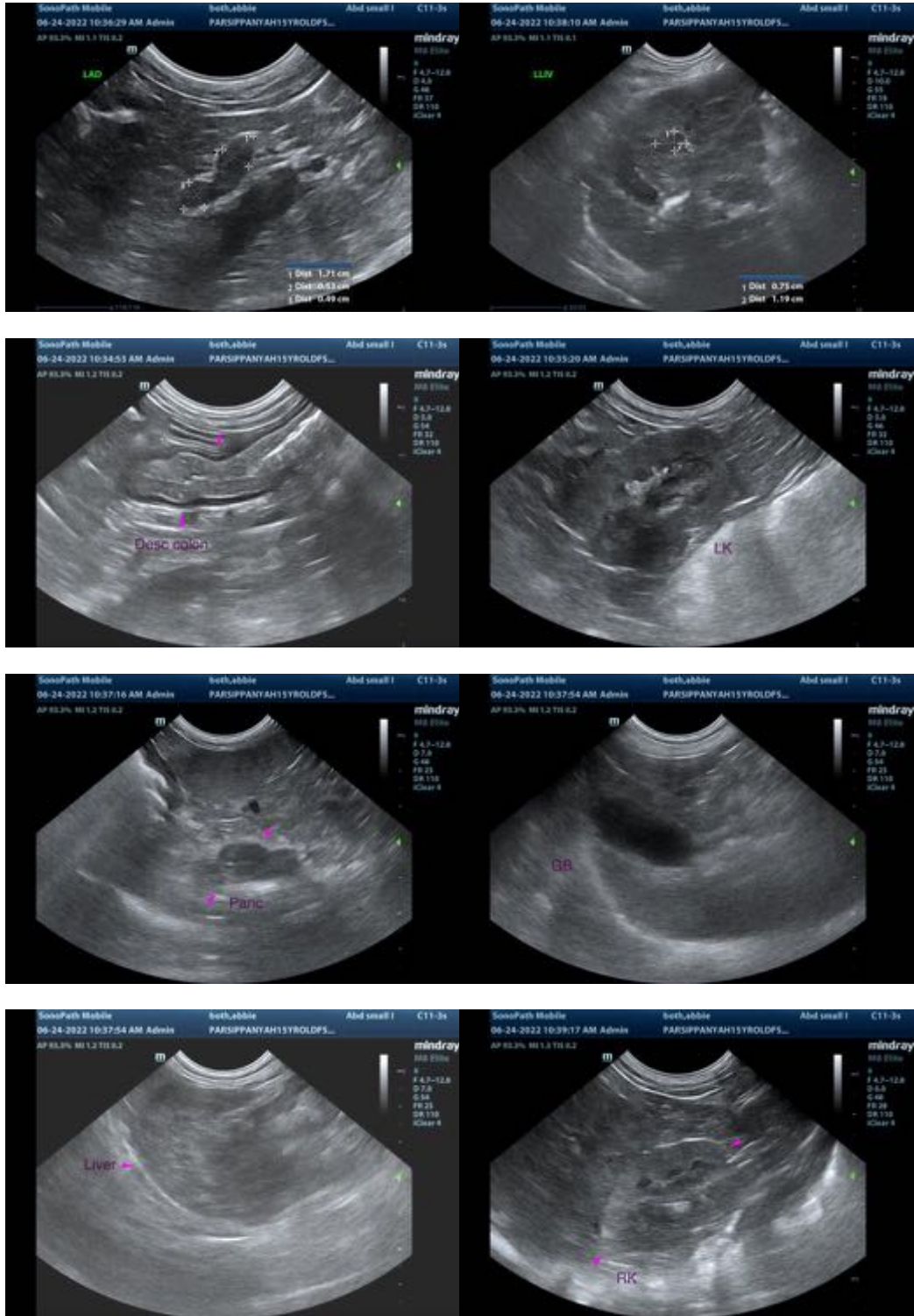
#### **Secondary Findings**

- Nonspecific diffuse hepatopathy. Differentials include inflammatory disease (chronic active hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), infiltrative neoplasia (less likely), other hepatopathy +/- concurrent age-related change (regenerative nodular hyperplasia, vacuolar hepatopathy). Correlation with the patient's liver values is recommended.
- The pancreatic changes are suggestive of chronic active pancreatitis.
- The colonic wall changes are most consistent with an inflammatory process. However, hypertrophy or emerging neoplasia cannot be completely excluded. Correlation with the patient's clinical history is recommended.

\*An obvious cause for the patient's systemic hypertension is not definitively identified in this study. Considerations include primary hypertension, Cushing's Disease, protein-losing nephropathy, renal disease, other.

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

- Thoracic radiographs are recommended to assess for potential cardiac effects of systemic hypertension.
- Consider a UPC and T4/free T4 by equilibrium dialysis, if not already performed.
- Depending on the results the baseline lab work and the patient's clinical signs, further testing for Cushing's disease (i.e., low-dose dexamethasone suppression test) and/or other diagnostics may be warranted.



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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