



**PATIENT PRESENTING CLINICAL SIGNS**

**Josie Troupe** History of hepatic amyloidosis (diagnosed via biopsies). Also has a history of a protein-losing nephropathy with azotemia and hypertension. Currently on omega 3 fatty acids daily, and Ursodiol and Denamarin on Monday, Wednesday, and Friday. Has previously taken telmisartan and enalapril but has had to discontinue due to GI upset.

**SPECIES**

**Canine** Renal values on January 6, 2023 were the following: BUN 61. Creatinine 2.6. Urinalysis at that time: USG 1.012 with 2+ proteinuria and a small amount of blood in the urine. CBC and T4 unremarkable.

**BREED**

CBC chemistry panel, UPC and blood pressure are pending today.

**Hound**

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SEX** *Urinary System*

**Spayed Female** The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 3-4 cm, are normal.

**AGE**

**7 years** The left kidney is normal in size (5.27 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Mild pyelectasia is present (0.34 cm in the transverse plane). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

**NP**

The right kidney is normal in size (5.92 cm in length) with a slightly irregular shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Mild to moderate pyelectasia is present (0.39 cm in the longitudinal plane). There is no evidence of hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is mildly enlarged (0.75 cm at cranial pole) (0.90 cm at caudal pole) with a normal shape and 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**

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

The right adrenal gland is in prominent size (1.45 cm at cranial pole) (0.78 cm at caudal pole) with a slightly irregular shape and 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**

West Ashley VC

**Spleen**

The spleen is normal in size (1.37 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. Tierney

**Liver**

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and subtly mottled in appearance. A 1.40 x 0.99 cm hypoechoic nodule is observed on the left side, at the caudal aspect. The lesion does not appear to cause capsular expansion. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

**INVOICE**

12542

The portal vein to caudal vena cava ratio is approximately 1: 1.

**DATE**

3.28.23

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal

in thickness. No choleliths are observed. 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 is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

### ***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.

### ***Other***

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

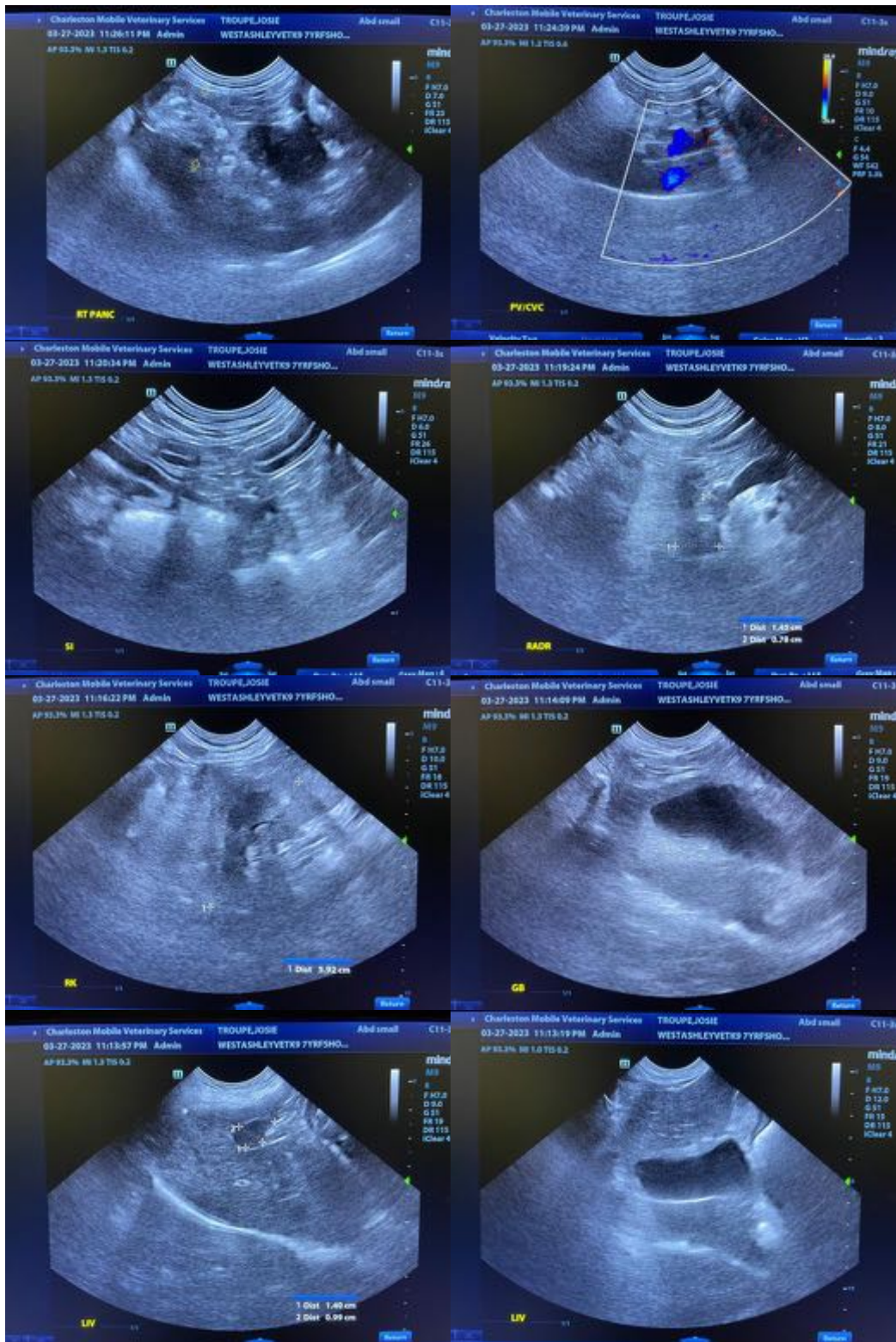
- Bilateral chronic renal changes with subtle dystrophic mineralization. The bilateral pyelectasia could be consistent with age-related remodeling, pyelonephritis, or PU/PD (if applicable). The right-sided pyelectasia is a new finding.
- The diffuse hepatic parenchymal changes are consistent with the previous diagnostics of amyloidosis, although on the previous sonogram, the parenchyma was reported as sonographically normal. The hypoechoic hepatic nodule trends toward the benign (i.e., regenerative nodule) with a lower possibility of an emerging tumor.

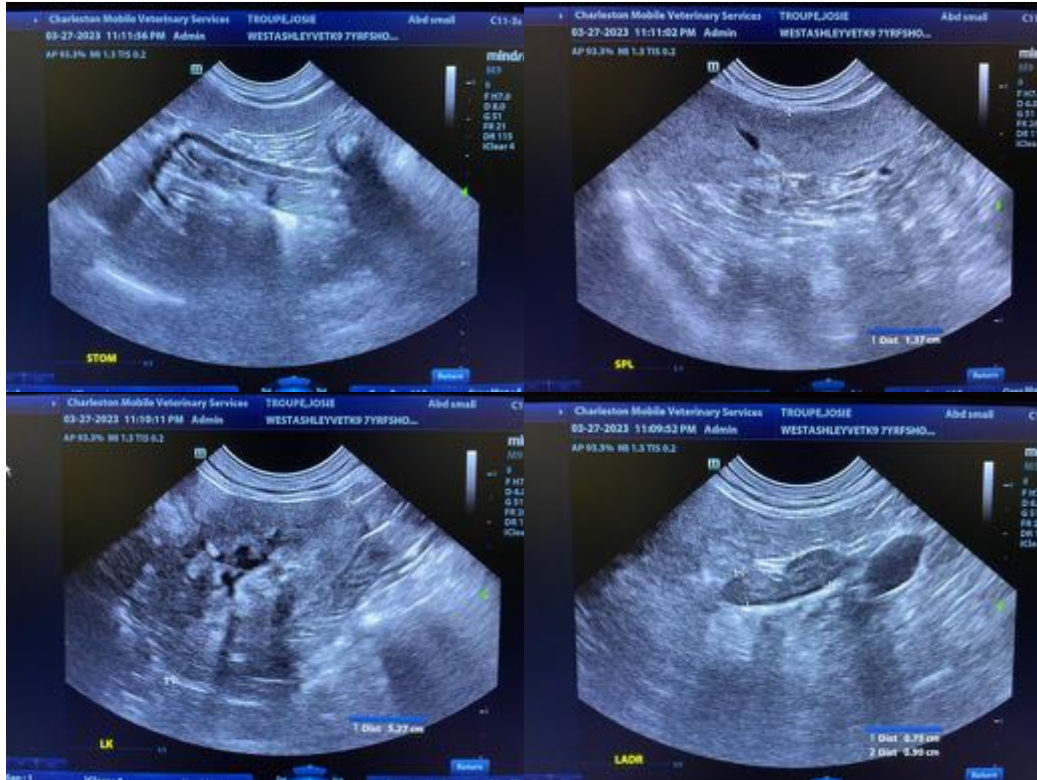
### **Secondary Findings**

- Mild bilateral adrenomegaly
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

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

- Further diagnostic and treatment recommendations will be based on the lab-work and blood pressure that are currently pending.
- Regarding the hepatic nodule, consider a recheck ultrasound in 2-3 months to assess for growth.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop.





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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