

**DATE PRESENTING CLINICAL SIGNS**

4/14/2022 Abdominal effusion, cardiac murmur in fla grade 4/6 but here 4/12/22 both Dr. Steere and I heard a grade 2/6.

PATIENT

Misti Blanton

Current Medications: Spironolactone 25mg ¼ BID, Benazapril 5mg ¼ BID, Denamarin Advanced 90mg 1 SID, Salix 12.5mg 1 TID.

Lab Results: ALT 300+, ALKP 435.

Date of Previous IntraPet Ultrasound: No previous.

SPECIES

Canine

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Pearce RDCS, RVT.

BREED

Chihuahua

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

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

7/24/2009

The left kidney presented normal size (3.60 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Several nonobstructive nephroliths are present. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

6.42 lbs

The right kidney presented normal size (4.06 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Andrea Nicastro, DMV,
Diplomate DACVIM
(Small Animal
Internal Medicine)

Adrenal Glands

The left adrenal gland is mildly enlarged (0.65 cm at cranial pole) (0.66 cm at caudal pole) (0.55 cm in length); with a slightly irregular 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

North Laurel Animal
Hospital

The right adrenal gland is normal size (0.46 cm at cranial pole) (0.49 cm at caudal pole) (0.50 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. Cohn

Spleen

The spleen is normal in size (1.25 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

10747

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 gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated

echogenic partially dependent debris is observed within the lumen. The intrahepatic biliary tracts are normal. The hepatic veins are subjectively dilated.

The gall bladder lumen is mildly distended. The wall is normal in thickness. At least one cholelith is present along with aggregated echogenic to mineralized debris. 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 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 or overt infiltrative disease is noted.

Pancreas

The left limb is visible/prominent with slightly irregular peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

Free Abdomen

A moderate amount of free fluid is present within the abdomen. The mesentery throughout the abdomen is hyperechoic. The abdominal lymph nodes are normal/not visible.

Other

The caudal vena cava is subjectively dilated (1.23 cm in diameter at the level of the diaphragm).

ULTRASONOGRAPHIC FINDINGS

Primary Findings

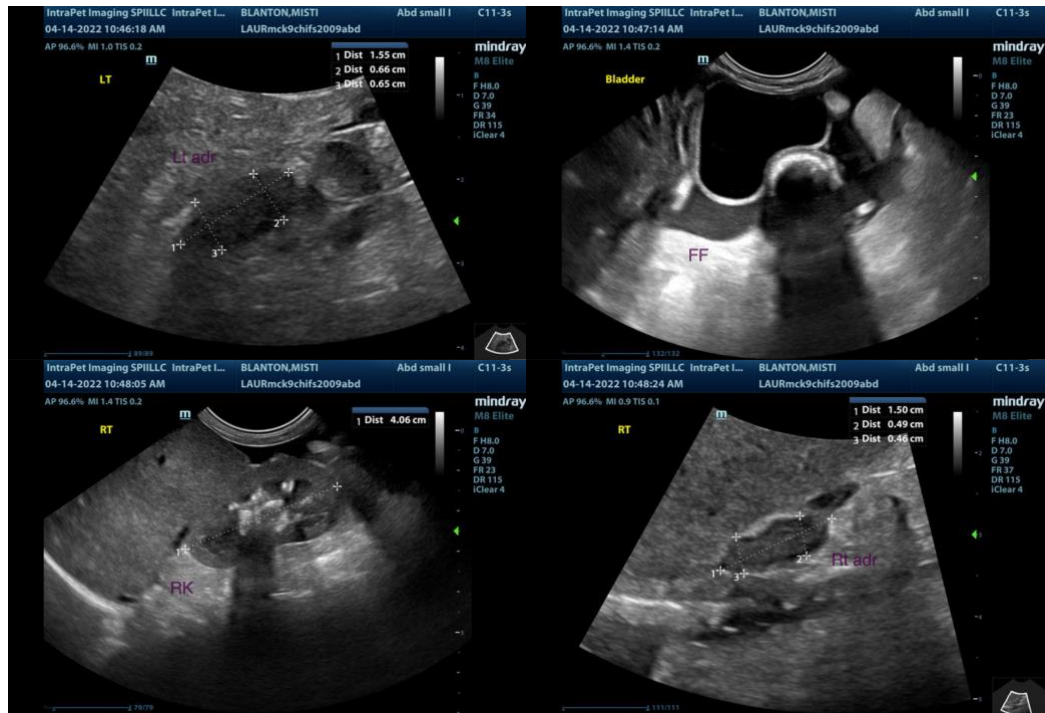
- The dilated caudal vena cava and hepatic veins are concerning for an upstream issue (i.e., right-sided congestive heart failure). Other differentials include obstruction of the thoracic caudal vena cava (i.e., due to a clot or mass), or pulmonary hypertension.

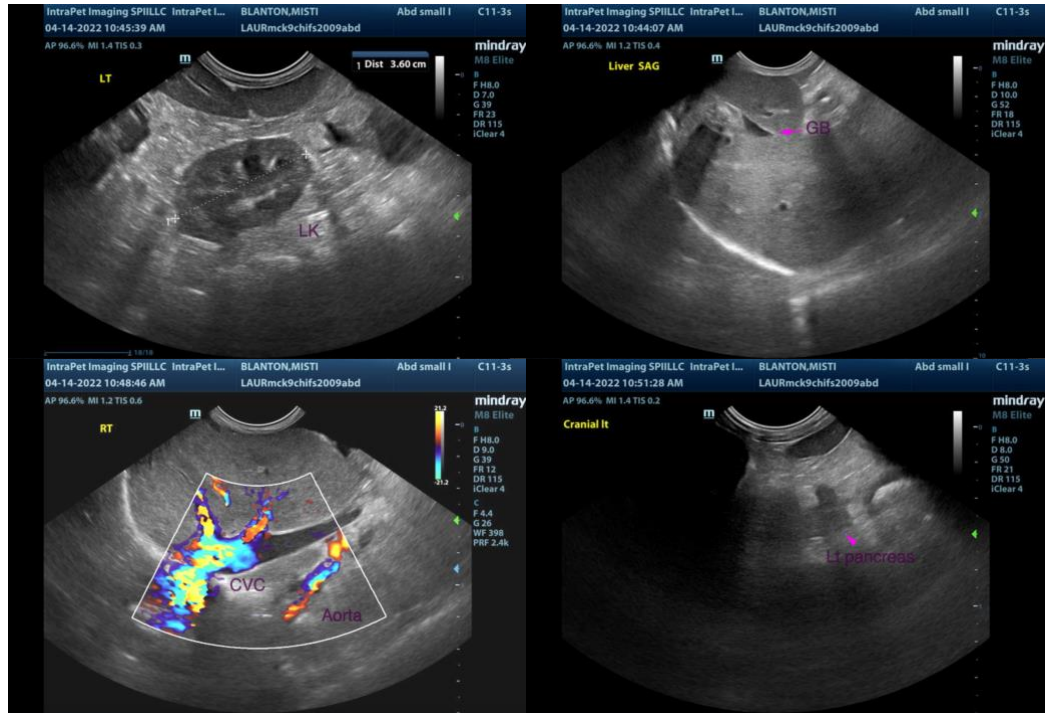
Secondary Findings

- Bilateral nonobstructive nephrolithiasis
- Mild left adrenomegaly
- The hepatic parenchymal changes could be secondary to passive congestion, an inflammatory hepatopathy, infiltrative neoplasia (less likely) +/- a concurrent benign age-related process (i.e., vacuolar hepatopathy, regenerative nodular hyperplasia).
- Nonobstructive cholelith(s)
- The pancreatic changes could be consistent with edema (i.e., secondary to right-sided congestive heart failure). Alternatively, low-grade pancreatitis may be present.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Further recommended should be based on the echocardiogram reports.
- To further investigate the liver enzyme elevations, the following can be considered:
 1. Pre-and postprandial serum bile acids
 2. Leptospirosis testing (i.e., blood and urine PCR, serology)
 3. +/- hepatic tissue sampling (i.e., fine-needle aspirate or biopsy).





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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