


**PATIENT PRESENTING CLINICAL SIGNS**

Hudson Cameron Nordell

History: DMVD Stage B2, Trivial TR, PI, AI, Hx of APC's and occasional VPC R/c Echo and AUS

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Losing weight, Grade 3/6 AV murmur, PMI eft hemithorax. Mild non regenerative anemia, Slight increase Urea with normal Creat and SDMA , ALKP 225 (N 2-212) Previous 222 Dec /21 Snap cPI normal Vetmedin 2.5 mg BID, Enalapril 5 mg BID, Spironolactone 25 mg x 1/2 BID, Diltiazem 30 mg x 1/4 TID

**BREED**

Jack Russell Terrier

**SEX**

Neutered Male

**AGE**

16 years, 9 mos

**WEIGHT**

6.9 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr Brian Barnes

**HOSPITAL NAME**

Westview VH

**REFERRING VET**

Dr Brian Barnes

**INVOICE**

11045

**DATE**

6/8/22

**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. The region of the trigone is normal.

The prostate is normal in size and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (4.40 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. At least one, small cortical cyst is visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis.

The right kidney is normal size (4.57 cm in length); with a slightly irregular shape. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. At least one, small cortical cyst is visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis.

**Adrenal Glands**

The left adrenal gland is mildly enlarged (0.77 cm at cranial pole) (0.67 cm at caudal pole) (1.87 cm in length); with a slightly irregular shape. The parenchyma is heterogenous with loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is borderline enlarged (0.57 cm at cranial pole) (0.60 cm at caudal pole) (2.17 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.

**Spleen**

The spleen is normal in size (1.10 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. Several, small, ill-defined hypoechoic nodules/areas are observed throughout the organ. Hepatic vasculature and intrahepatic 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 mostly gravity dependent, echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The gastric lumen is mildly distended with ingesta. The gastric wall is 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. There is no evidence of an obstructive pattern.

### ***Pancreas***

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional 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 regenerative nodular hyperplasia and vacuolar hepatopathy. Given the lack of ALT elevation, inflammatory disease is considered less likely. Infiltrative neoplasia is possible, but also considered less likely due to the sonographic appearance of the liver.

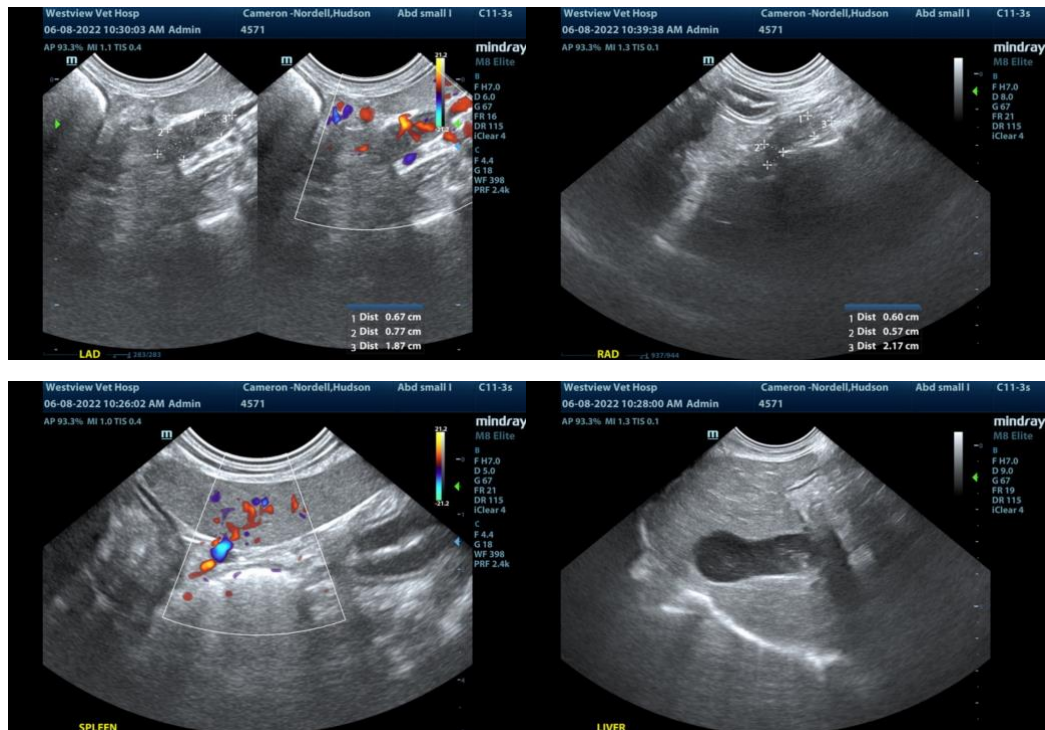
### **Secondary Findings**

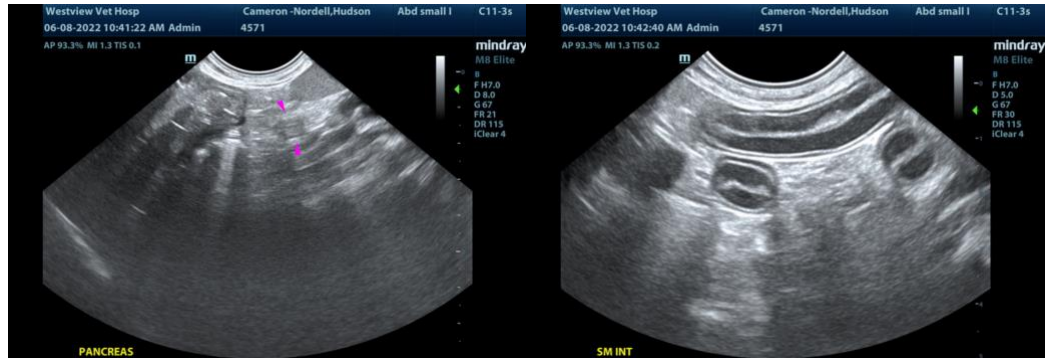
- Mild, bilateral adrenomegaly, more pronounced on the left side
- Bilateral, chronic, age-related renal changes with dystrophic mineralization

\*An obvious cause for the patient's weight loss is not identified in this study. Considerations include maldigestion/malabsorption, sarcopenia, occult neoplasia, underlying metabolic issue, cardiac cachexia, other.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Thoracic radiographs are recommended if not already performed to assess cardiopulmonary status and to evaluate for occult neoplasia.
- Consider a GI panel (Send to Texas A&M) to assess for maldigestion/malabsorption.
- A neurologic examination is also recommended as weight loss can be the sole clinical sign in some patients with primary brain tumors.
- Given the non-regenerative anemia, a bone marrow aspirate +/- an infectious disease panel for tick-borne disease may be warranted.
- Also consider a T4/free T4 by equilibrium dialysis as hypothyroidism can sometimes cause anemia.





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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