



**PATIENT**

Rufus Smythe

**SPECIES**

Canine

**BREED**

Plott Hound

**SEX**

Neutered Male

**AGE**

11 Years

**WEIGHT**

82 Pounds

**INTERPRETED BY**

R. McKenzie Daniel, DVM,  
 DABVP (Canine and  
 Feline)

**IMAGING PERFORMED BY**

Pamela Harrigan, RDMS

**HOSPITAL NAME**

Chase VC

**REFERRING VET**

Catherine Cafarella,  
 BVSc

**INVOICE**

15742

**DATE**

5/22/22

**PRESENTING CLINICAL SIGNS**

History: Lethargy; increased thirst; periodic diarrhea. Has Cushing's disease, well-regulated on Vetory. ALT 137; ALP 9,665, SDMA 18, creatinine 17. On Vetoryl 60 mg SID; Clomicalm 40 mg SID; metronidazole 500 mg BID; probiotic SID. \*Sedated with dexdomitor for study.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.94 cm in diameter.

Normal renal size with asymmetrical margination was present in both kidneys. Both kidneys exhibited subjective cortical hypertrophy, exhibiting increased yet mild nonuniform cortical echogenicity. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. Intermittent cortical cysts noted in both kidneys. Pinpoint areas of medullary mineral were present in both kidneys. Mild pyelectasia was present in the left kidney. No evidence of pyelectasia in the right kidney. The left kidney measured 8.7 cm in length. The right kidney measured 7.0 cm in length.

**Adrenal Glands**

The left adrenal gland exhibited generalized mild enlargement with areas of capsule asymmetry. Nonhomogeneous to indistinctly nodular parenchyma primarily in the mid to cranial left adrenal gland. A subtle notch indicating the possibility of mild parenchymal expansion in the area of the phrenicoabdominal vein was present. Overall, left adrenal gland measured 3.2 cm x 1.3 cm at the cranial pole in width and 1.0 cm at the caudal pole in width. No evidence of left adrenal parenchymal mineralization.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.73 cm width at the caudal pole and 0.60 cm width at the cranial pole.

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease. A solitary well demarcated nondisruptive hyperechoic splenic nodule, exhibiting distal acoustic shadowing, measuring 1.0 cm in diameter.

**Liver**



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The liver exhibited mild to moderate enlargement. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

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The gallbladder was normal in size. The gallbladder walls were overtly normal without evidence of inflammatory criteria. Anechoic content was present with mild nondependent yet nonorganized nonmineralized debris. The cystic and common bile ducts were normal.

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***Gastrointestinal***

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material. The pylorus wall measured 0.60 cm.

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The duodenum exhibited intact to subjectively prominent wall layering with minor areas of duodenal corrugation. The duodenum wall measured 0.55 cm in width. The jejunum and ileum to the level of the colon were overtly normal. The jejunum wall measured 0.43 cm.

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Normal visible colon wall layers were present with apparent formed feces in lumen.

***Pancreas***

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

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***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

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**ULTRASONOGRAPHIC FINDINGS**

- Hepatopathy, exhibiting generalized mild parenchymal remodeling- subjectively benign
- Mild gallbladder debris (non-mucocele)
- Nonspecific bilateral chronic renal changes, exhibiting mild nonuniform increased cortical echogenicity with intermittent cortical cysts
- Nonhomogeneous to irregular left adrenal gland, overtly normal right adrenal gland
- Duodenitis pattern, possible generalized nonspecific enteropathy
- Benign splenic nodule

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Given the overtly normal presentation of the right adrenal gland with concurrent mild left adrenomegaly, exhibiting nonhomogeneous to irregular parenchyma, the primary source of the Cushings disease in this patient may be secondary to primary left adrenal pathology, while the possibility of left adrenal neoplastic criteria and early phrenicoabdominal vein invasion cannot be excluded.

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Screening blood pressure recommended to assess for evidence of hypertension, which may allude to concurrent pheochromocytoma. CT with contrast is likely ideal for further assessment of the left adrenal gland, if possible. Sonographic monitoring of the left adrenal gland for evidence of progressive enlargement and possible early vascular invasion with recheck in 4 weeks is recommended. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. A fresh fecal analysis to rule out parasitic ova/Giardia may be considered if clinically indicated.

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A limited antigen or hydrolyzed diet trial with potential long-term dietary therapy may prove beneficial in addition to as needed gastrointestinal support.

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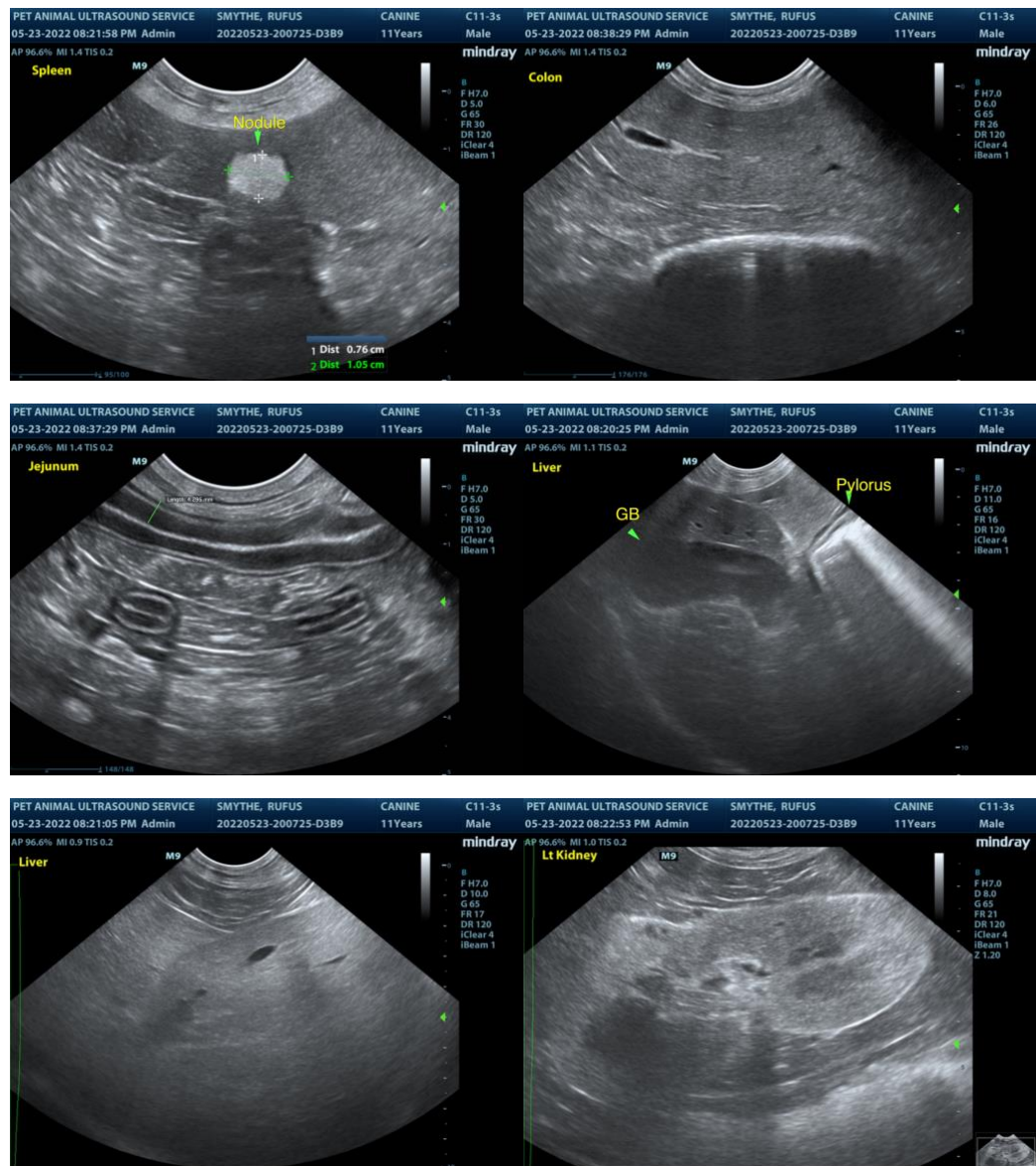
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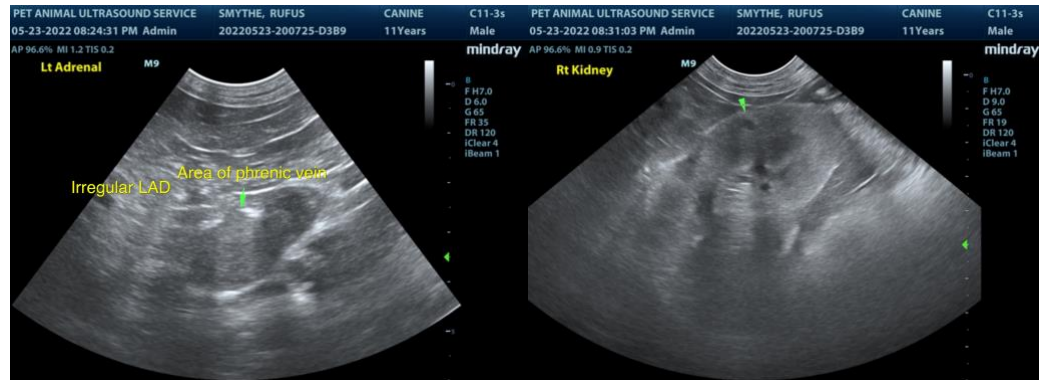
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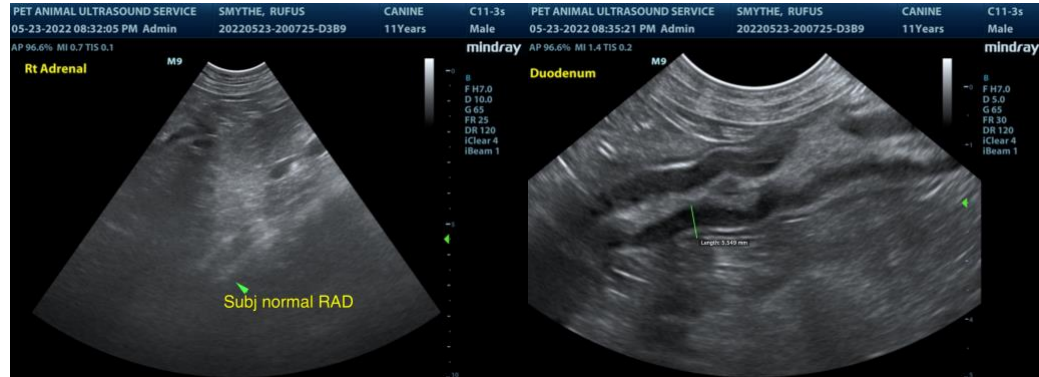
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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