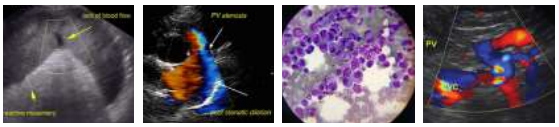


PATIENT

Emma Ignatius

SPECIES

Canine

BREED

Springer Spaniel

SEX

FS

AGE

12 years

WEIGHT

69 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Amazon Park AC

REFERRING VET

Dr. Jones

INVOICE

48317

DATE

11/12/21

PRESENTING CLINICAL SIGNS

Older dog diagnosed with hyperadrenocorticism in January 2021 via LDDS but not being treated. On enalapril for hypertension. Recurrent episodes of acute colitis Current Medications Enalapril 15 mg twice daily
Abnormal PE/Chem/CBC/UA Results: ABNORMAL Labratory Findings ALP ranging from 1700 to 2000 for the last 18 months

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 was noted.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. Both kidneys exhibited subtle echogenic cortical hypertrophy along with cortical cysts. The medulla echogenicity was hypoechoic to the cortex with no evidence of pyelectasia. The left kidney measured 7.7 cm in length. The right kidney measured 8.2 cm in length.

Adrenal Glands

The left adrenal gland was prominent in size with primarily maintained symmetrical capsule contour and nonhomogeneous to subtly nodular parenchyma. uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 3.5 cm length x 1.5 cm width at the cranial pole and 1.3 cm width at the caudal pole.

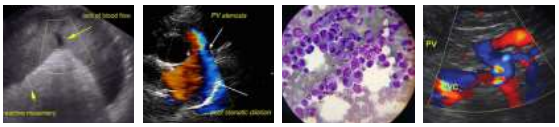
The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 3.5 cm length x 2.0 cm width at the cranial pole and 0.58 cm width at the caudal pole. A moderately expansive nodule resulting in distortion of the right adrenal capsule without evidence of parenchymal escape or overt vascular invasion although potential for vascular invasion cannot be definitively excluded. The nodule measured 3.0 x 2.4 cm.

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.

Liver/ Gallbladder

The liver exhibited mild generalized enlargement, symmetrical capsule contour, and a nonuniform generalized echogenic parenchyma with multifocal variably sized hypoechoic nodules in the liver. An



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example of a nodule measured 2.1 cm diameter. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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 gastric body wall measured 0.6 cm width.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material. The jejunum wall measured 0.41 cm width.

Normal visible colon wall layers were present with subjective formed feces at the time of ultrasound.

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 were evident.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

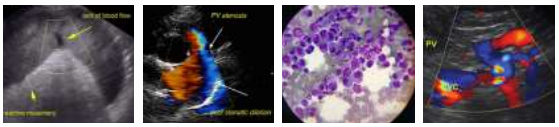
ULTRASONOGRAPHIC FINDINGS

- Bilateral chronic renal changes with small cortical cysts.
- Bilateral adrenomegaly more prominent in the right adrenal gland owing to moderately expansive right adrenal nodule - bilateral hyperplasia, right adrenal adenoma versus emerging neoplasia, i.e., pheochromocytoma, adenocarcinoma, cortisol secreting tumor, or other.
- Hepatomegaly with echogenic to hypoechoic nodular parenchyma - suspect vacuolar hepatitis given history of hyperadrenocorticism with probable areas of hematopoiesis or nodular/regenerative hyperplasia. Potential for hepatic neoplasia considered a less likely differential diagnosis.
- Sonographically unremarkable gastrointestinal tract with potential intermittent recurrent mild colitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Urine catecholamine levels, given the right adrenal nodule and history of hypertension, to asses for pheochromocytoma could be considered.

Right adrenalectomy may be considered in this patient although CT assessment of the right adrenal gland to assess for surgical resectability or vascular invasion would be ideal prior to surgical considerations. However, serial sonographic monitoring of both the left and right adrenal glands for evidence of progressive enlargement would be appropriate. Medical therapy for hyperadrenocorticism recommended if significant clinical signs are present.



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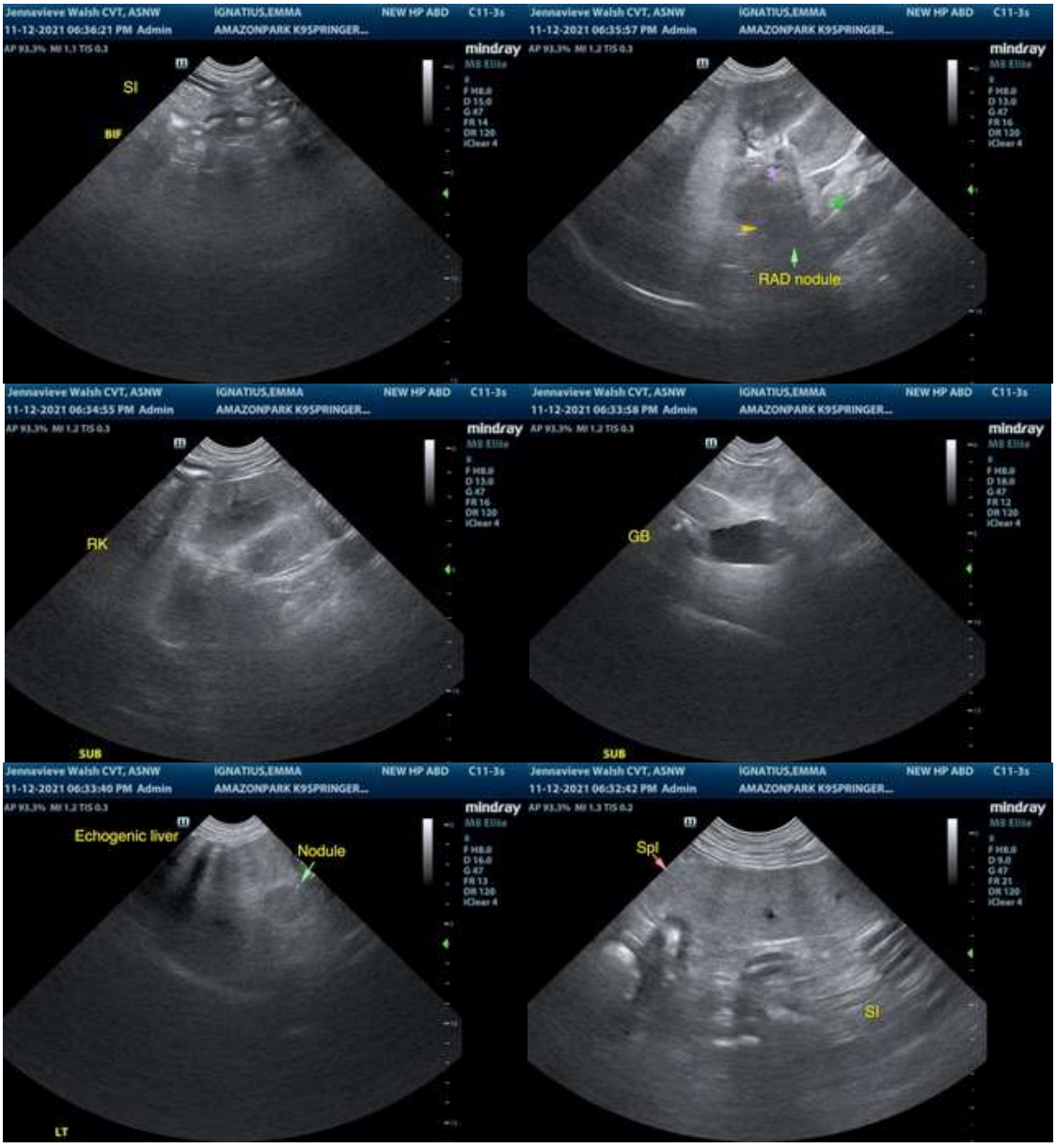
Urine culture and sensitivity recommended on a sterile urine sample.



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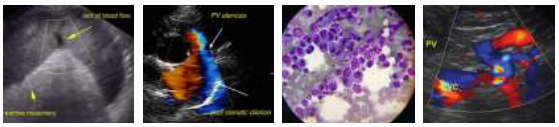

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com