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Clinical Sonography & Telecytology
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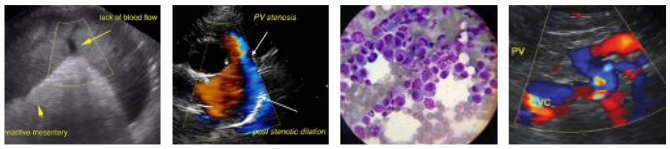


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Bonnie Holmes

SPECIES

Canine

BREED

Min Poodle

SEX

FS

AGE

14

WEIGHT

4.3kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Alastair Westcott

HOSPITAL NAME

Dr. Alastair Westcott, DVM

REFERRING VET

Dr. Alastair Westcott

INVOICE

14169ag

DATE

06/20/2023

PRESENTING CLINICAL SIGNS

Initially presented 5 days ago with an approximate 10d history of PU/PD and occasional inappropriate urination. Has severe dental disease and a chronic cough. There is is a mature cataract OD

Abnormal PE/Chem/CBC/UA Results: Mature cataract OS with no PLR's with mydriasis Severe dental disease with tartar and peritoneal disease Reported PU/PD Chronic cough Slightly thickened right stifle with some favoring. There is significant, quantified proteinuria with relatively unremarkable bloodwork (Mild elevation in BUN but normal CREA/SDMA. Elevated LIPASE and a borderline USG.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 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.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Bilateral non-obstructive medullary mineralization was present. The left kidney measured 3.7 cm in length. The right kidney measured 3.9 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

A well-defined, hyperechoic nodule was present in the left cranial pole with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The left adrenal nodule measured 1.3 cm x 1.2 cm. The left adrenal gland measured 1.44 cm width at the caudal pole and 1.8 cm length.

A well-defined, hyperechoic nodule was present in the right cranial pole with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The right adrenal nodule measured 1.0 cm x 0.82 cm. The right adrenal gland measured 0.46 cm width at the caudal pole and 1.3 cm length.

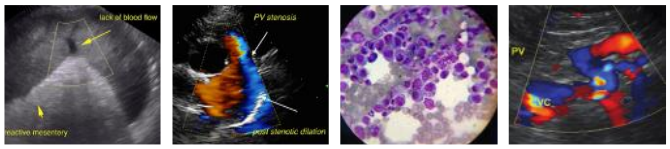
Spleen

The spleen exhibited mild heterogenous parenchyma. 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.

Liver/Gallbladder

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. Intermittent non-disruptive heterogenous/hyperechoic nodules were present, an example measured 2.0 cm in diameter. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non distended in size with echogenic, nonmineralized, non-dependent biliary sludge. The biliary sludge was non organized with a hypoechoic to anechoic, irregular to interrupted



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rim visible between the nondependent sludge and inner wall. No signs of peripheral inflammation. 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 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.

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

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Non-specific chronic renal changes with non-obstructive medullary mineral.
- Bilateral adrenal nodules-suspect adenomas.
- Mild heterogenous spleen.
- Hepatic parenchyma remodeling with intermittent heterogenous intraparenchymal nodules-suspect benign, nodules suggestive of hyperplasia or lipogranulomas.
- Immature gallbladder mucocele.
- Heterogenous pancreas.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given lack of reported hypertension, unilateral emerging pheochromocytomas are considered less likely yet technically possible. Monitoring for systemic BP for evidence of hypertension +/- urine catecholamine levels if hypertension is documented is suggested. Concurrent adrenal work up with LDDST may be considered if clinical suspicion of Cushing's syndrome. Monitoring of the adrenal nodules for evidence of progression with initial recheck in 6 weeks would be ideal.

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Given lack of reported hepatic enzyme elevation or cholestasis, the immature gallbladder mucocele of clinical significance at this stage however monitoring for cholestasis or cranial abdominal/subxiphoid discomfort on palpation with sonographic reassessment of the gallbladder if clinically indicated is recommended.

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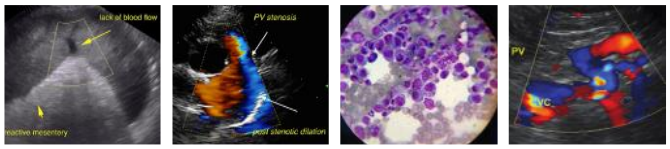

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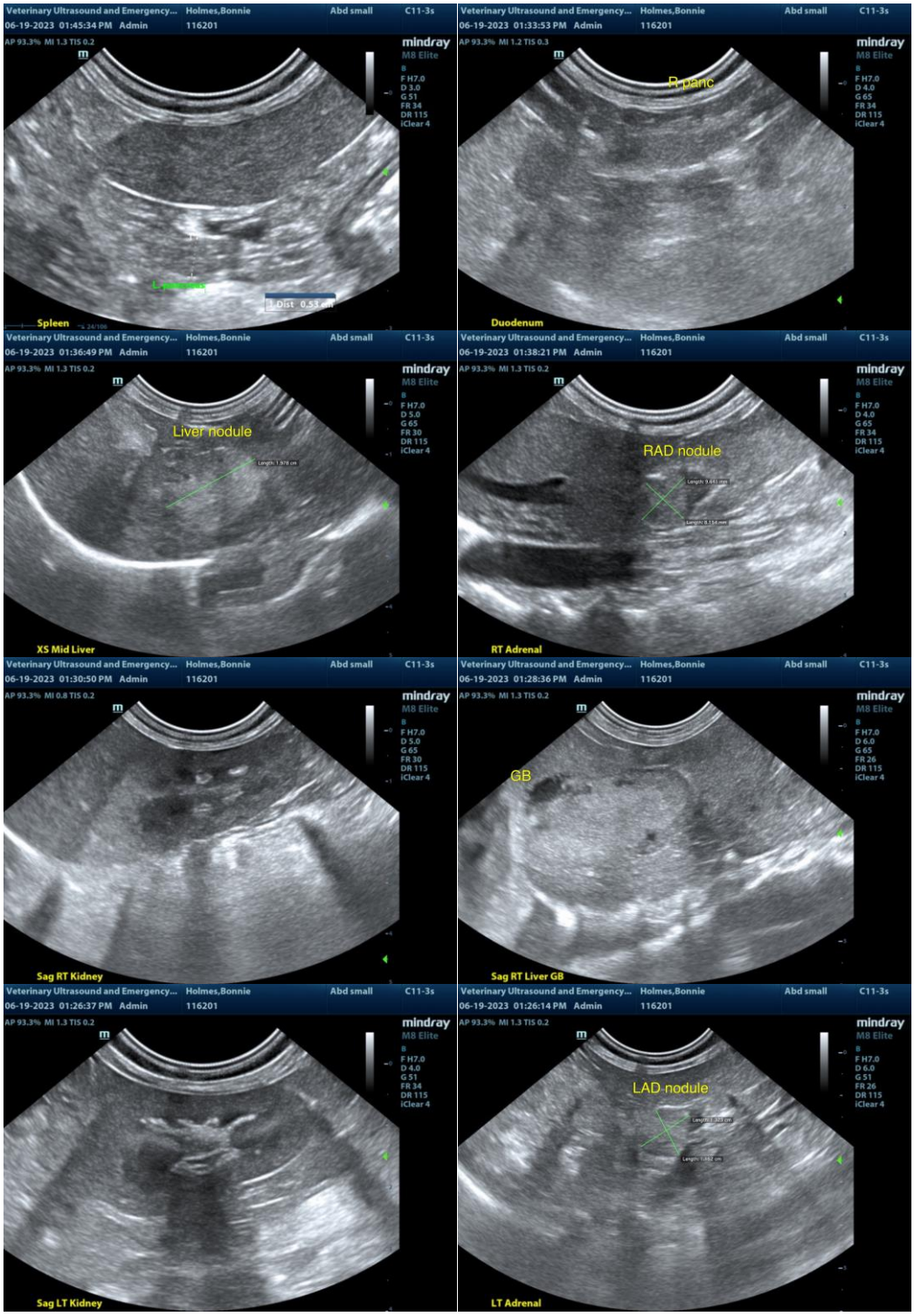

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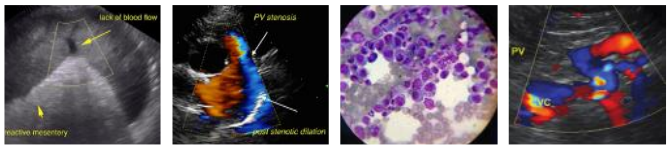

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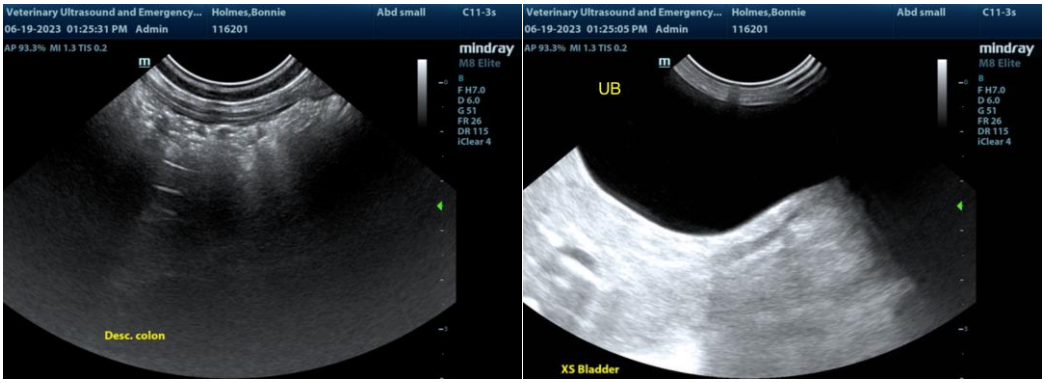

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
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