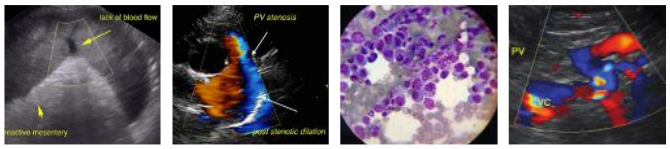


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Byron Bowers

SPECIES

Canine

BREED

Boxer

SEX

MN

AGE

13yr

WEIGHT

75lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Lucas Budden

HOSPITAL NAME

Frontier Veterinary Hospital

REFERRING VET

Lucas Budden

INVOICE

12695ag

DATE

01/15/2023

y

PRESENTING CLINICAL SIGNS

Has been presenting with cushing like symptoms and owners have been having to restrict water consumption. Have not yet completed low dose dex suppression testing, wanted Ultrasound first.

Abnormal PE/Chem/CBC/UA Results: Please see attached lab results and radiographs.

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Pinpoint medullary mineral present bilaterally with a small cortical cyst present in the left kidney. No overt evidence of right kidney cortical cysts. The left kidney measured 7.5 cm in length. The right kidney measured 6.5 cm in length.

The area of the aortic trifurcation was free of pathology.

The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy.

The area of the residual prostate appeared normal and free of pathology.

Adrenal Glands

The left adrenal gland was borderline to mildly prominent in size based on caudal pole width and body weight with normal contour and homogenous parenchyma. The left adrenal gland measured 0.91 cm width at the caudal pole and 3.4 cm length.

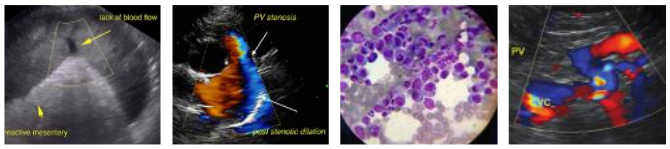
The right adrenal gland was borderline to mildly prominent in size exhibiting mild non-homogenous parenchyma including a focal area of parenchymal mineralization. No evidence of vascular invasion. The right adrenal gland measured 0.75 cm width at the caudal pole and 2.9 cm length.

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 presented borderline to mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. Focal to intermittent non-disruptive discrete parenchymal cysts/cystic nodules were present. The liver parenchyma was uniform with a mildly coarse echotexture. 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



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gallbladder was non-distended in size with primarily anechoic luminal content and mild non-dependent echogenic debris primarily around the lumen periphery along the inner luminal wall. No evidence of gallbladder or peripheral gallbladder inflammation was present. 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 formed feces in lumen.

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum, likely consistent with age related changes and considered incidental. No signs of active inflammation or neoplasia.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

- Bilateral borderline prominent adrenal glands with focal right adrenal parenchymal mineralization-nonspecific
- Mild chronic renal changes with pinpoint medullary mineral and small left kidney cortical cyst
- Subjective borderline/mild hepatomegaly with focal benign parenchymal cyst/cystic nodules
- Heterogenous pancreas-no overt pancreatic tumor
- Mild gallbladder debris (non-mucocele)
- Sonographically unremarkable GI tract

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If persistent hypoglycemia (BG <60) the possibility of an insulinoma pending insulin glucose comparison on the same serum sample cannot be definitively excluded. These tumors tend to be small and difficult to visualize sonographically.

The bilateral adrenal presentation is of unclear clinical significance.

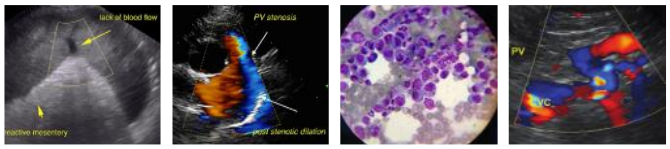
Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. The hypoglycemia does not obviously fit with Cushing's syndrome yet an adrenal workup and assessment of systemic BP given evidence of non-specific right adrenal gland mineralization could be considered pending current diagnostics.

The gallbladder debris is considered incidental given no reported cholestasis.

No evidence of hepatic/GI tumors as a contributing factor to the hypoglycemia.

Sonographic monitoring of the right adrenal gland would be ideal with initial recheck recommended in 4-6 weeks.

For an additional charge, internal medicine consult can be utilized through Sonopath.com. You can select the internal medicine drop down at http://spa.sonopath.com/.



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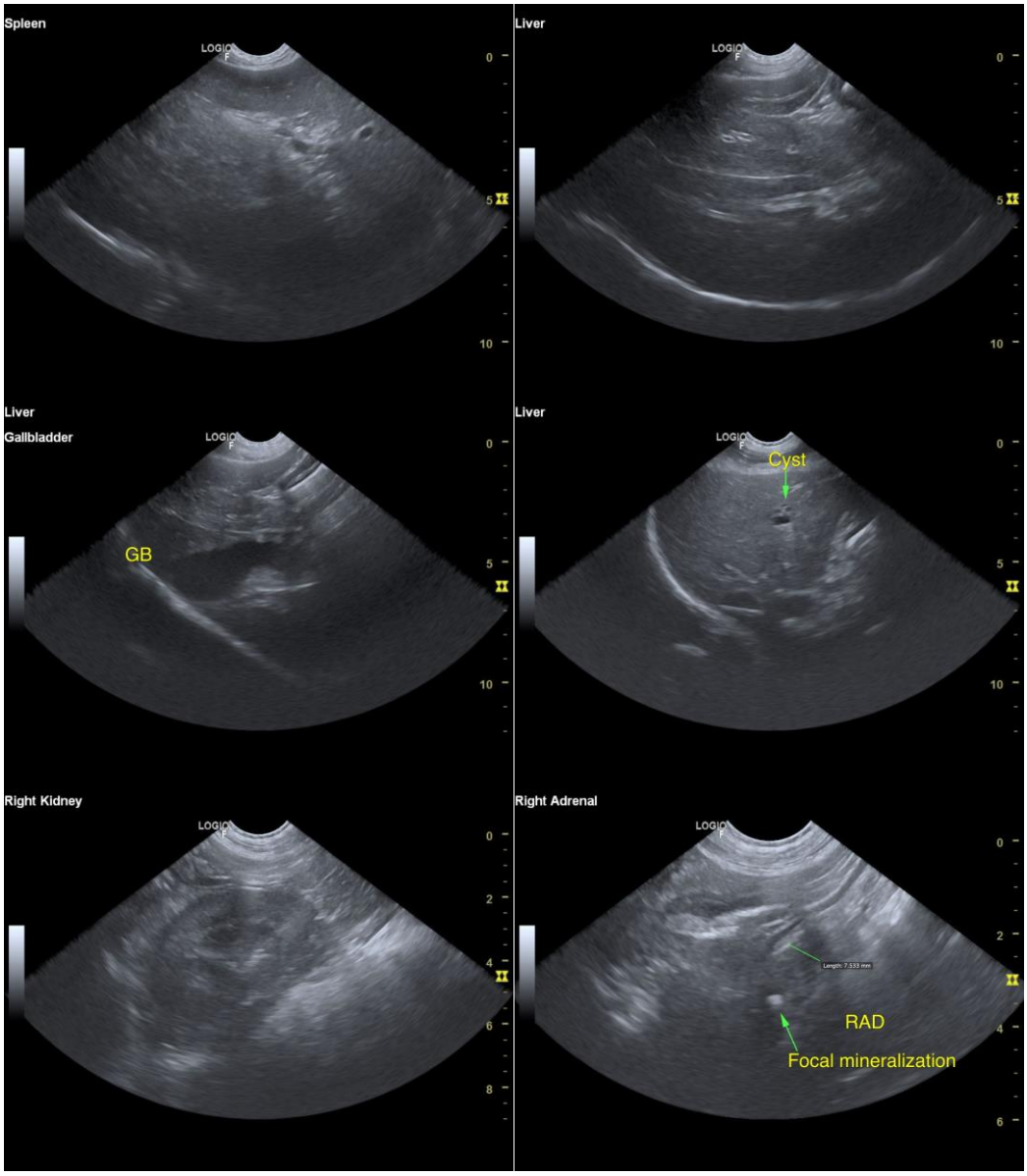
One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services.



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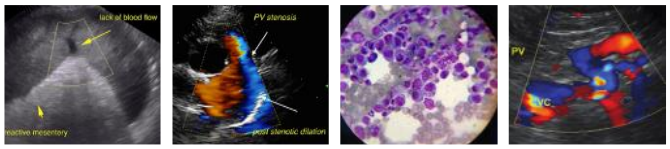

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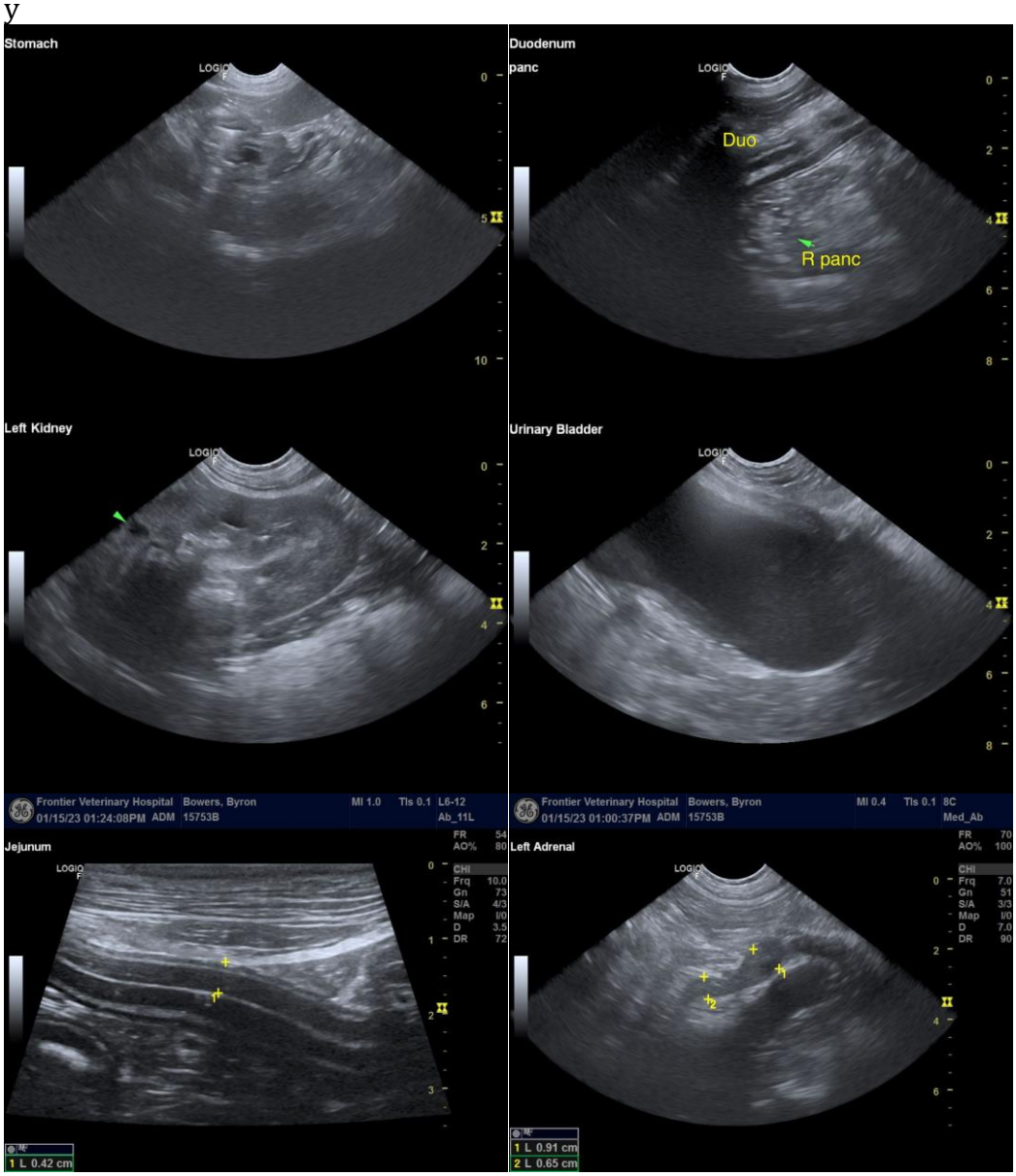

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
mac.daniel@sonopath.com