



PATIENT PRESENTING CLINICAL SIGNS

PATIENT
Jojo Uhlig

SPECIES
K9

BREED
Havanese

SEX
FS

AGE
10 Years

WEIGHT
12.4

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
49713

DATE
1-20-22

Hx of atopy and has been on prednisone 1.25 mg orally PO q24h and Apoquel 2.7 mg PO q24h once per day for years. Has had ALP elevation since 2018 (has been on pred since then). See most recent BW below. Has also had a history of a sensitive stomach. Patient presented for PU/PD on 1/16/2022. Doing well otherwise at that time. See BW below. Due to inflammatory leukogram recommended ultrasound. Patient had an ultrasound in 2017 for a few episodes of vomiting/decreased appetite/weight loss. Was on Hill's z/d at that time. No abnormalities found at that time outside of mild decrease in renal corticomedullary distinction.

Abnormal PE/Chem/CBC/UA Results: BW 1/16/2022 ALP high 1536 GGT high 16 Glucose high 547 Chloride low 93 Triglycerides high 557 Amylase high 1282 PSL high 690 White blood cell high 22.8 Platelet high 440 Neutrophils high 18696 Bands high 912 Lymphocytes low 456 Monocytes high 2736 USG 1.016 Glucose 3+ ketones 1+ Fructosamine high 493 Urine culture no growth

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 were noted.

No evidence of pathology in the area of the aortic trifurcation.

Normal size and margination was 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 pyelectasia was present. The left kidney measured 4.7 cm in length. The right kidney measured 5.0 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.41 cm width at the caudal pole and 0.83 cm width at the cranial pole. A nonexpansive to mildly nonhomogeneous echogenic nonmineralized nodule was present in the cranial pole of the left adrenal gland. The nodule measured 0.81 cm in length x 0.53 cm width.

The right adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The right adrenal gland measured 0.69 cm width in the cranial pole and 0.59 cm width in the caudal 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.

Liver / Gallbladder

The liver exhibited generalized enlargement with symmetrical yet rounded hepatic contour and increased hepatic parenchymal echogenicity exhibiting mild to moderate course echotexture. No



PATIENT masses or nodules were noted. The hepatic and portal vasculature were normal in appearance without signs of congestion.

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The gallbladder was non-distended in size with moderate emerging organized nonmineralized luminal debris occupying approximately 50% of the gallbladder lumen. The cystic and common bile ducts were normal. No evidence of peripheral inflammation associated with the gallbladder was noted.

Gastrointestinal

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The visible gastric walls exhibited intact wall layering without mural pathology or hypertrophy. The stomach contained moderate progressive distal acoustic shadowing ingesta without overt evidence of obstruction to pyloric outflow. The visualized gastric wall was normal. The ventral gastric body wall measured 0.30 cm width.

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The small intestine presented intact wall layering with primarily maintained 1:3 muscularis/mucosa ratio with segmental duodenojejunal mucosal speckling. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. The duodenum wall width measured 0.39 cm and the jejunum wall width measured 0.40 cm.

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

Pancreas

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The pancreas exhibited prominent size and mild asymmetrical contour with mixed echogenic parenchyma. No overt masses were noted. The visible pancreatic duct was normal. Evidence of mild regional peripancreatic omental reactivity was noted.

Free Abdomen

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No overt lymphadenopathy or peritoneal effusion was present.

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ULTRASONOGRAPHIC FINDINGS

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- Mild chronic renal changes - no evidence of pyelonephritis.
- Nonspecific left adrenal nodule - suspect adenoma.
- Hepatopathy exhibiting mild uniform parenchyma hyperechogenicity - subjectively benign.
- Noninflamed emerging gallbladder mucocele.
- Chronic to chronic active pancreatitis.
- Gastric ingesta with mild segmental small bowel mucosal speckling.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Minor potential for emerging left adrenal neoplasia i.e., pheochromocytoma or adenocarcinoma cannot be definitively excluded. Sonographic monitoring of the left adrenal nodule for evidence of progression is recommended.

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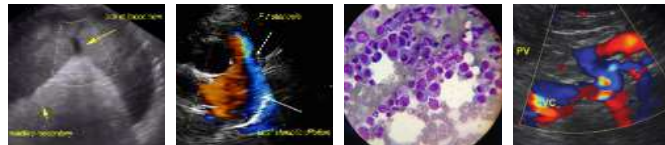
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The liver may indicate metabolic/vacuolar/reactive hepatopathy owing to prednisone therapy or potential diabetes, inflammatory hepatopathy or hepatobiliary process, given the presence of concurrent noninflamed mucocele with less likely potential for hepatic neoplasia.

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The presence of gastric ingesta likely correlates with postprandial presentation; however, if documented NPO, some degree of gastric hypomotility could be considered. The appearance of the ingesta is most consistent with food.



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The small bowel mucosal speckling is nonspecific yet may suggest underlying enteritis or other inflammatory enteropathy given the patient's history.

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Urine culture and sensitivity on a sterile urine sample recommended given the glucosuria. ACTH stimulation test in light of potential diabetes and pu/pd may be considered if clinically indicated.

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For an additional charge, internalmedicineconsult can be utilized through SonoPath.com. You can select theinternalmedicinedrop down at<http://spa.sonopath.com/>.

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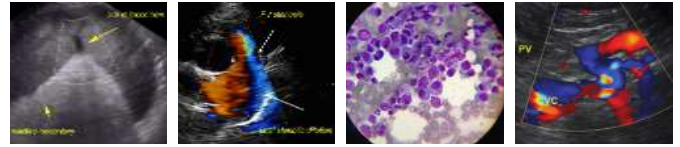
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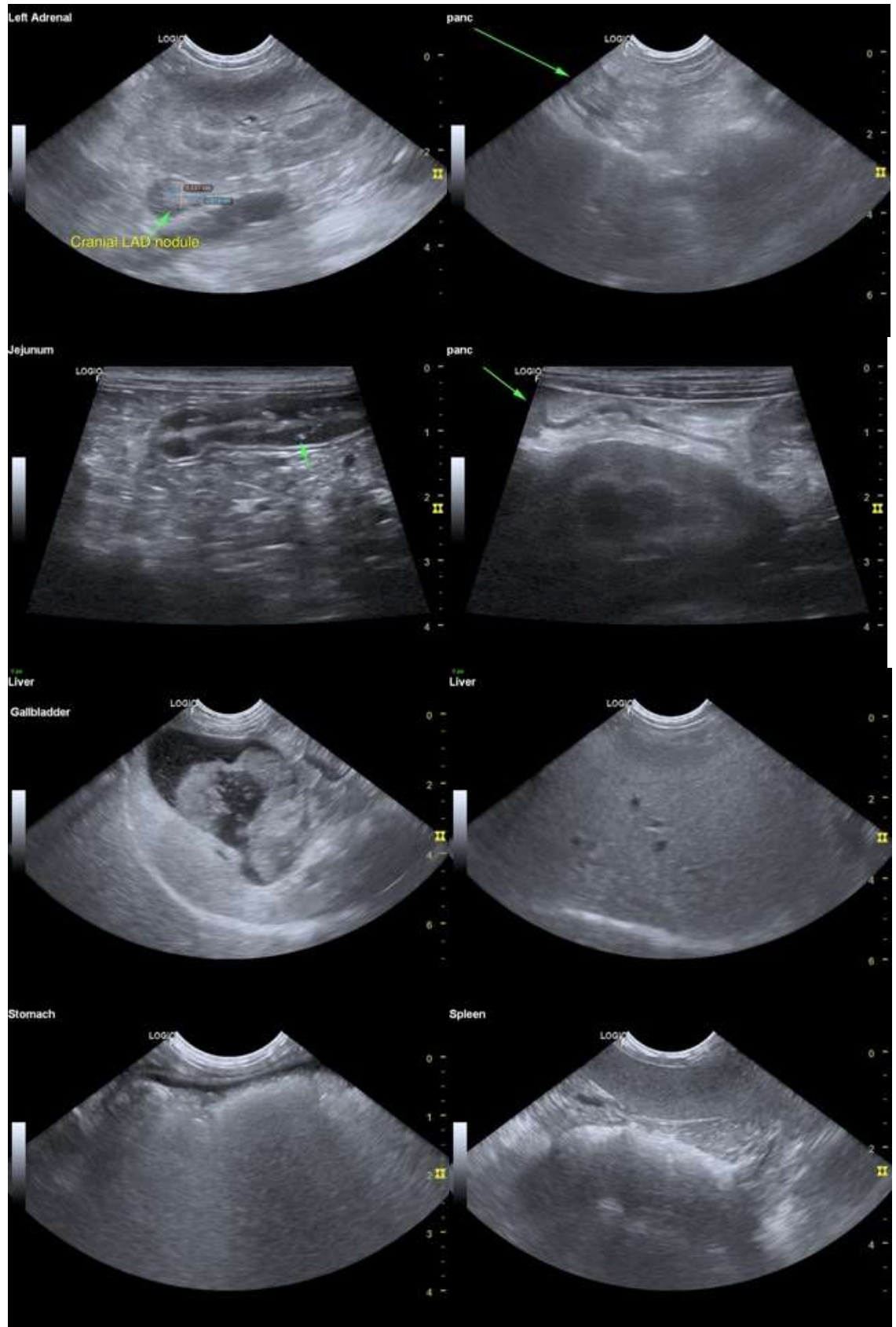
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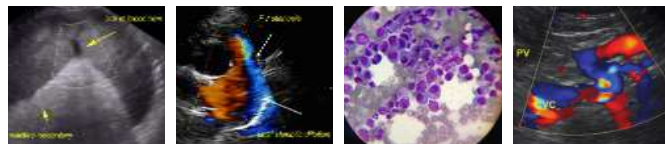
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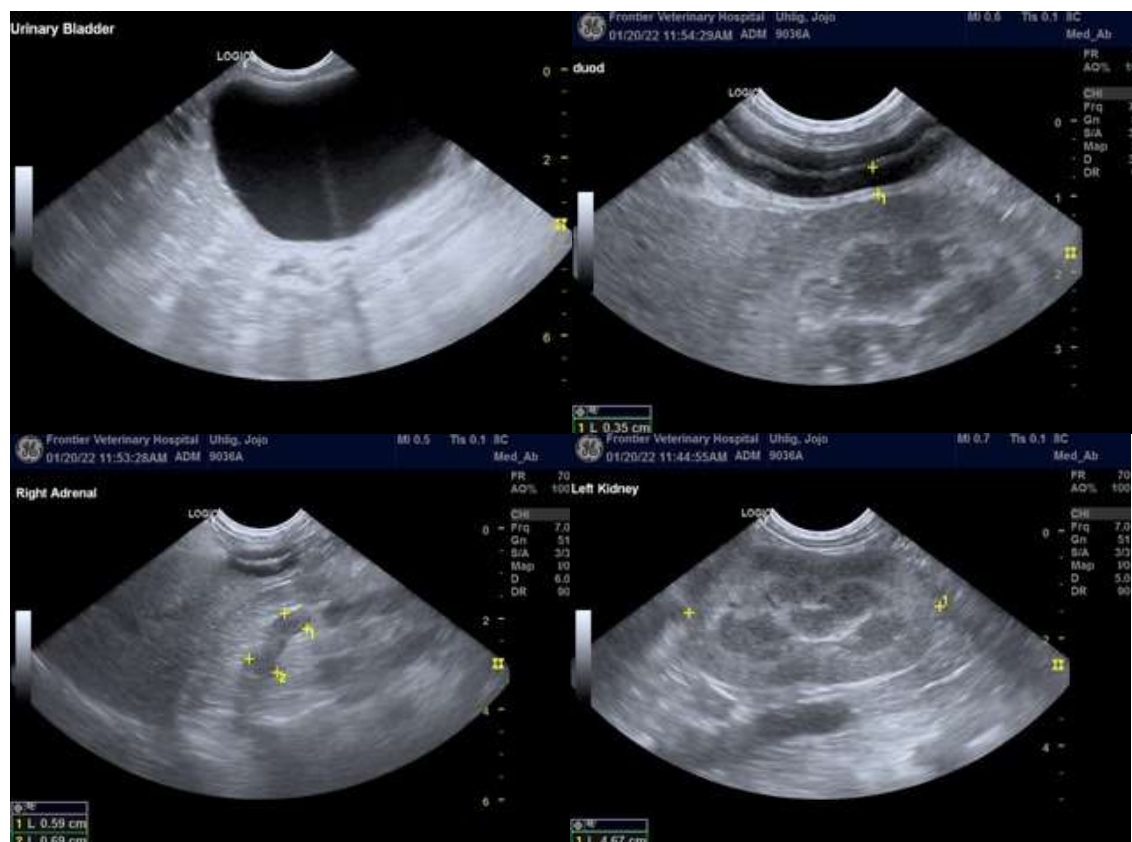
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
info@SonoPath.com