



## PATIENT

Buster Holden

## SPECIES

Canine

## BREED

Yorkie Mix

## SEX

Neutered Male

## AGE

12 years

## WEIGHT

16.4 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Heidi Putnam, SDEP  
Clinical Sonographer

## HOSPITAL NAME

Willakenzie AC

## REFERRING VET

Dr. DeWall

## INVOICE

12115

## DATE

8/11/21

## PRESENTING CLINICAL SIGNS

Presented 8/6 for PU/PD of about 7 day duration. Also started to vomit (long history of pancreatic and GI/presumed IBD) and not acting like himself. GI issues have been managed well with diet (RC gastrointestinal low fat), tylan powder daily, cerenia as needed (not filled very often) PE: moderate tartar, vomiting, 2# weight loss since April. Suspected flare up of pancreatitis on 8/6 and metabolic disease

Abnormal PE/Chem/CBC/UA Results: Meds: Tylan powder, cerenia, getting ready to start insulin NPH

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Small cystic calculus was present in the dependent lumen, measuring 0.64 cm in diameter. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.60 cm in diameter.

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 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. Nonobstructive medullary mineral / renolithiasis were present in both kidneys. No evidence of pyelectasia was noted. The left kidney measured 5.1 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 2.0 cm length x 0.58 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 1.5 cm length x 0.41 cm width at the caudal pole.

### Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. An echogenic nodule was present throughout the cranial to caudal 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. Acute to chronic inflammatory or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.



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***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. 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 mild, echogenic, nonmineralized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

***Gastrointestinal***

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The gastric body wall measured 0.7 cm width. Mild gastric distension was present with minor retained anechoic fluid noted in the stomach lumen.

The small intestine presented intact wall layering with subjective propensity for a segmental to generalized prominent mucosa layer. The duodenum wall width measured 0.47 cm. The jejunum wall width measured 0.42 cm.

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

***Pancreas***

The pancreas exhibited prominent size with mild swollen contour and uniform mildly hypoechoic parenchyma compared to adjacent reactive peripancreatic omentum.

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

***Primary Findings***

- Cystic calculus
- Bilateral chronic renal changes with nonobstructive medullary mineralization / renolithiasis
- Hepatomegaly / subjectively benign
- Mild gallbladder debris (non-mucocele)
- Pancreatitis with regional peripancreatic reactive mesentery
- Gastroenteritis pattern - potential inflammatory bowel disease

***Secondary Findings***

- Benign splenic nodule - consistent with probable benign myelolipoma



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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

If clinical concern for hyperadrenocorticism, adrenal testing i.e., ACTH Stimulation test given the potential for diabetes may be considered given the PU/PD. Continued supportive care for pancreatitis and inflammatory gastrointestinal episode would be appropriate. A GI panel to include PLI/TLI/Cobalamin/Folate may be considered for further assessment of the pancreas as well as potential underlying gastrointestinal disease, given the patient's weight loss.

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/>.

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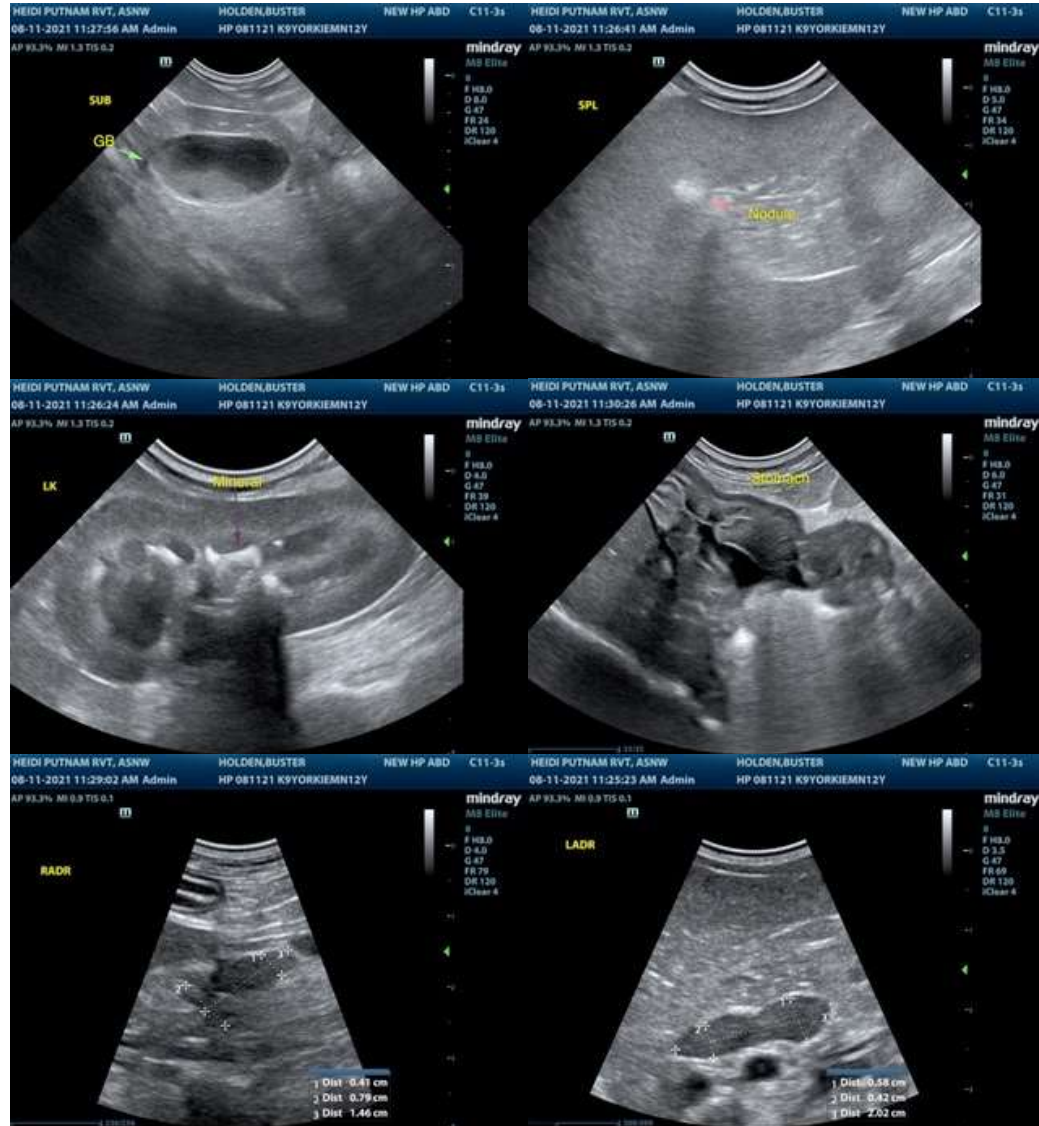
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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