



## PATIENT

Bella Wilber

## PRESENTING CLINICAL SIGNS

## SPECIES

Canine

## BREED

Chihuahua

## SEX

Neutered Male

Recurring diarrhea and vomiting. First noted in the record in 6/28/2019. P does have Cushing's disease diagnosed 11/30/2019, well-controlled as of last ACTH stimulation last November. P presented most recently on 9/28 for vomiting bile and recurrent soft stool – soft serve consistency, fecal score of 5. More recently the stool has contained fresh blood as well. O feeds rx urinary diet and does not feed human foods. Normal energy, voracious appetite, and O notes excessive drinking. P was prescribed metronidazole, fortiflora, and potential to start Purina HA vegetarian. Ultrasound scheduled for 10/5. Complete senior labwork completed in April 2021 when last seen for vomiting bile and diarrhea showed ALT elevated at 209, ALP at 2031, triglycerides 267, and thrombocytosis 573. Routine ACTH stimulation (1 year) due in November. Physical Exam Findings/Reason for Ultrasound: Chronic, recurring, intermittent diarrhea and vomiting. P is obese and has abdominal distension consistent with Cushings disease. Periodontal disease – O declines dental. Few subcutaneous masses. No other overt abnormalities. Lab Work Attached for Review? Yes Radiographs Attached for Review? No Additional Information:

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### AGE

9 Years 8 Months

### Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Minor dependent mineral noted in the rea of the trigone and cystourethral junction. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

### WEIGHT

15.5 Pounds

No overt pathology in the area of the residual prostate or aortic trifurcation.

## INTERPRETED BY

R. McKenzie Daniel,  
DVM, DABVP

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The kidneys measured 4.4 cm each.

## IMAGING BY

Loetitia Saint-Jacques,  
LVT

### Adrenal Glands

The left adrenal gland was enlarged in size with maintained symmetrical capsule contour and mild non-homogeneous yet non-mineralized parenchyma. The left adrenal gland measured 2.9 cm x 1.67 cm. 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 1.8 cm length x 0.5 cm at the cranial pole and 0.54 cm at the caudal pole.

## HOSPITAL NAME

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Northern Nevada

### Spleen

## REFERRING VET

Dr. Alexis Hazelwood

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. A well-defined, echogenic nodule was present surrounding the are of the splenic hilus, measuring 0.66 cm in diameter. 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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## DATE

10/5/21



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### *Liver*

## SPECIES

Canine

## BREED

Chihuahua

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. Several variably sized, uniformly echogenic parenchymal nodules were present. Example measured 3.6 cm diameter. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

### *Gastrointestinal*

## SEX

Neutered Male

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. Gastric body wall measured 0.32 cm.

## AGE

9 Years 8 Months

The small intestine presented intact wall layering with subjective propensity for segmental to generalized mildly prominent mucosa along with intermittent mucosal speckling. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. Duodenum wall measured 0.43 cm. Jejunum wall measured 0.40 cm.

## WEIGHT

15.5 Pounds

The colon walls presented intact yet mildly prominent wall layering with mild thickened to echogenic submucosa. Semiformed to soft feces noted in the lumen. Colon wall measured 0.34 cm.

### *Pancreas*

## INTERPRETED BY

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DVM, DABVP

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 was evident.

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### *Free Abdomen*

No overt lymphadenopathy or peritoneal effusion was present.

## ULTRASONOGRAPHIC FINDINGS

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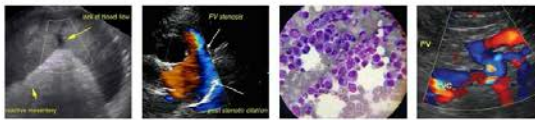
- Mild urinary bladder mineral
- Mild chronic renal changes
- Chronic hepatopathy with several variably sized echogenic nodules – suspect chronic vacuolar hepatic changes given the primary ALP elevation and history of Cushing’s disease with probable areas of benign nodular hyperplasia or lipogranulomas. Potential for concurrent or low-grade inflammatory parenchymal disease given the ALP possible. Neoplasia is considered a less likely differential diagnosis.
- Benign splenic nodule/myelolipoma - Hyperplasia, or mineralization associated with endocrinopathy possible.
- Enterocolitis, potential for inflammatory bowel

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- Left adrenomegaly with mildly prominent right adrenal gland – likely consistent with PDH given the patient’s history. Potential for emerging left adrenal neoplasia cannot be definitively excluded.

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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. Screening blood pressure and sonographic monitoring of the left adrenal gland for evidence of progression recommended. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. Fresh fecal analysis recommended to rule out parasitic ova/giardia. Recheck ACTH stimulation test (although due in November) suggested at this time. Empirically, continued as-needed gastrointestinal support and conservative inflammatory bowel protocol suggested.

**SEX**

Neutered Male

**AGE**

9 Years 8 Months

**WEIGHT**

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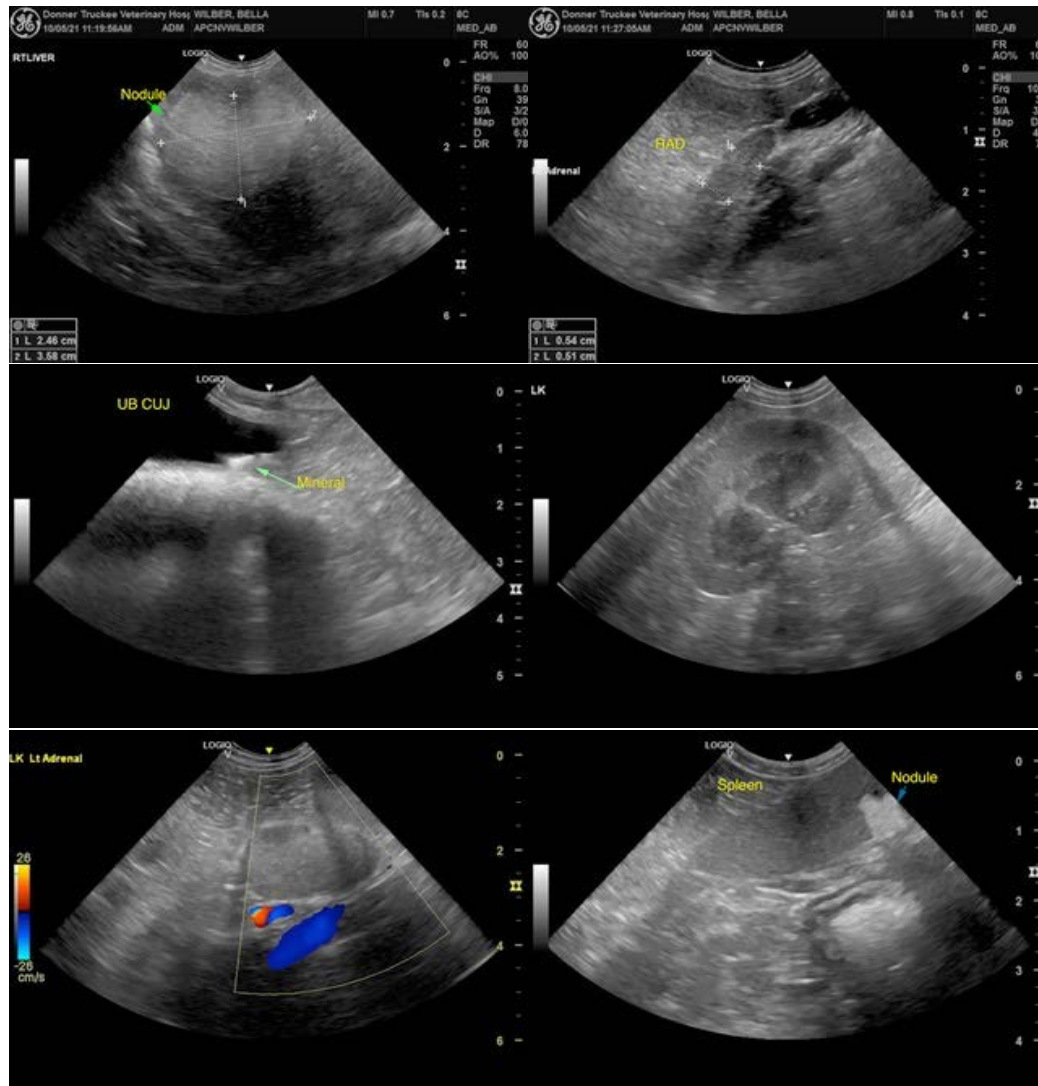
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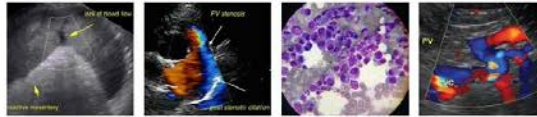
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**SEX**

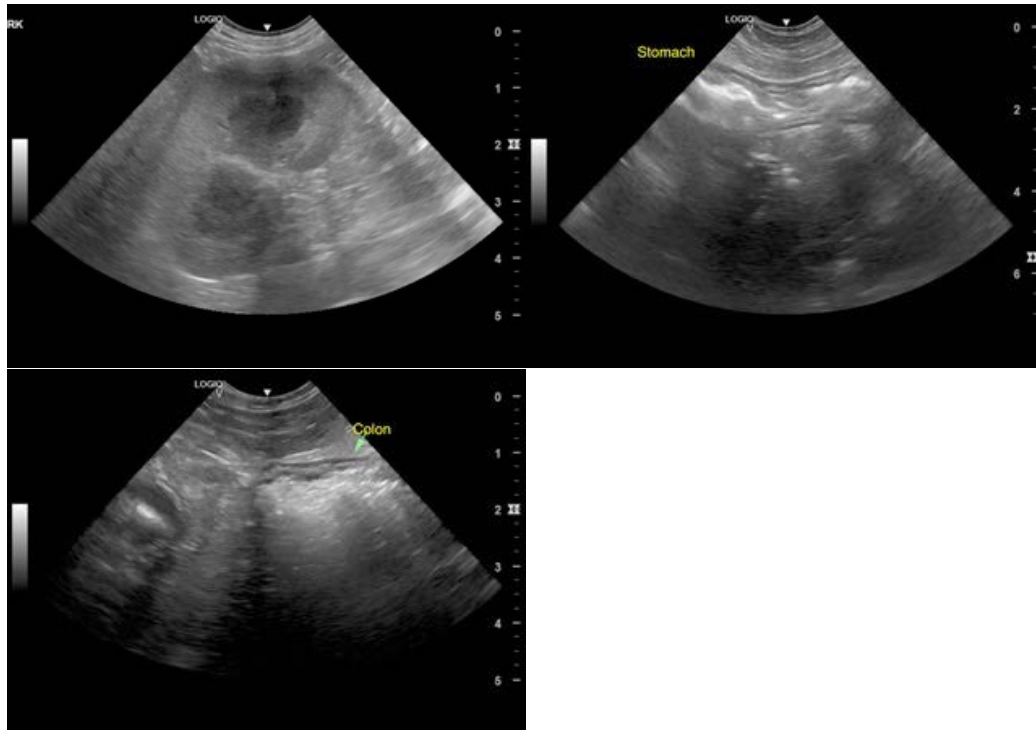
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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