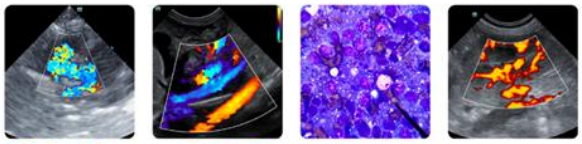




**PATIENT**

Hudson Cruz

**SPECIES**

Canine

**BREED**

Mini Schnauzer

**SEX**

MN

**AGE**

5yr

**WEIGHT**

12.8lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Gabriel Ferrer DVM

**HOSPITAL NAME**

Pulse Pet Ultrasound Services

**REFERRING VET**

Dr. Patricia Bello

**INVOICE**
24804

**DATE**
05/12/2026

## PRESENTING CLINICAL SIGNS

Px presented as a referral for an abdominal ultrasound due to intermittent episodes of diarrhea, and more recently, vomiting. Px has had episodes of diarrhea, specifically melena, since February, and has recently had some episodes of vomiting. No lethargy, no inappetence, no coughing, and no sneezing reported. Px is currently on the Hills Hydrolyzed diet and owner reports that the change in diet has somewhat helped. Owner reports that Px has had some episodes of urinary incontinence.

Abnormal PE/Chem/CBC/UA Results: Bloodwork attached below for your reference.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with mild dependent lumen mineral extending into the proximal urethra without obstruction to urethral outflow. The ureteral papillae were normal. The ureters were not visible, which is normal. No evidence of inflammatory or neoplastic changes was noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 3.7 cm in length. The right kidney measured 4.3 cm in length.

The area of the aortic trifurcation was free of pathology.

The residual prostate appeared normal and free of pathology.

### *Adrenal Glands*

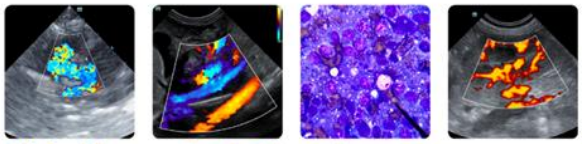
The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.50 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.39 cm width at the caudal pole.

### *Spleen*

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical 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, neoplastic, or benign parenchyma changes were not noted.

### *Liver/Gallbladder*

The liver presented mildly 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 possible minor wall edema. Moderate gravity dependent non-organized gallbladder debris The cystic and common bile ducts were normal.





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### *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 ventral gastric body wall measured 0.35 cm in width.

The small intestine presented intact wall layering with subjective mild altered wall layer ratio owing to propensity for mild prominent segmental jejunal mucosa layer and subjective minor prominent segmental jejunal muscularis layer. Segmental non-shadowing jejunal ingesta/chyme without obstructive pattern to the level of the colon. The duodenum wall measured 0.48 cm width. The jejunum wall measured 0.40 cm width. The descending colon wall measured 0.25 cm width.

Borderline prominent descending colon wall. The colon contained generalized soft fecal matter consistent with patient history.

### *Pancreas*

The pancreas was normal in size and contour with mild 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

### Primary

- Non-specific gastroenterocolopathy -suspect inflammatory bowel
- Mild pancreatic remodeling
- Benign hepatopathy pattern - suspect reactive vacuolar or cholestatic hepatopathy, potential for inflammation or combination
- Minor edematous gallbladder with non-organized bile debris (non-mucocele)
- Mild non-obstructive urinary bladder and proximal urethral lumen mineral

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Aside from subjective subtle altered intestinal wall layering, which is non-specific yet may suggest inflammatory criteria, no evidence of significant gastroenterocolic pathology such as masses, obstructive criteria or overt neoplasia. No evidence of active pancreatitis or definitive gastrointestinal ulceration, although microscopic intestinal disease or chronic pancreatitis may present sonographically normal. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. A screening cortisol level suggested to rule out occult disease despite normal adrenal presentation.

Empirically, a limited antigen or hydrolyzed diet trial with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Proviable or Visbiome), cobalamin supplementation pending assessment of cobalamin level +/- antibiotic trial with consideration for adverse effects on normal GI flora with long term antibiotic use and as needed gastrointestinal support with assessment of clinical response may prove beneficial. Intestinal biopsies may be indicated if GI signs continue despite empirical therapy.

If gastrointestinal signs are stable, hepatosupportive medications including Denamarin and ursodiol

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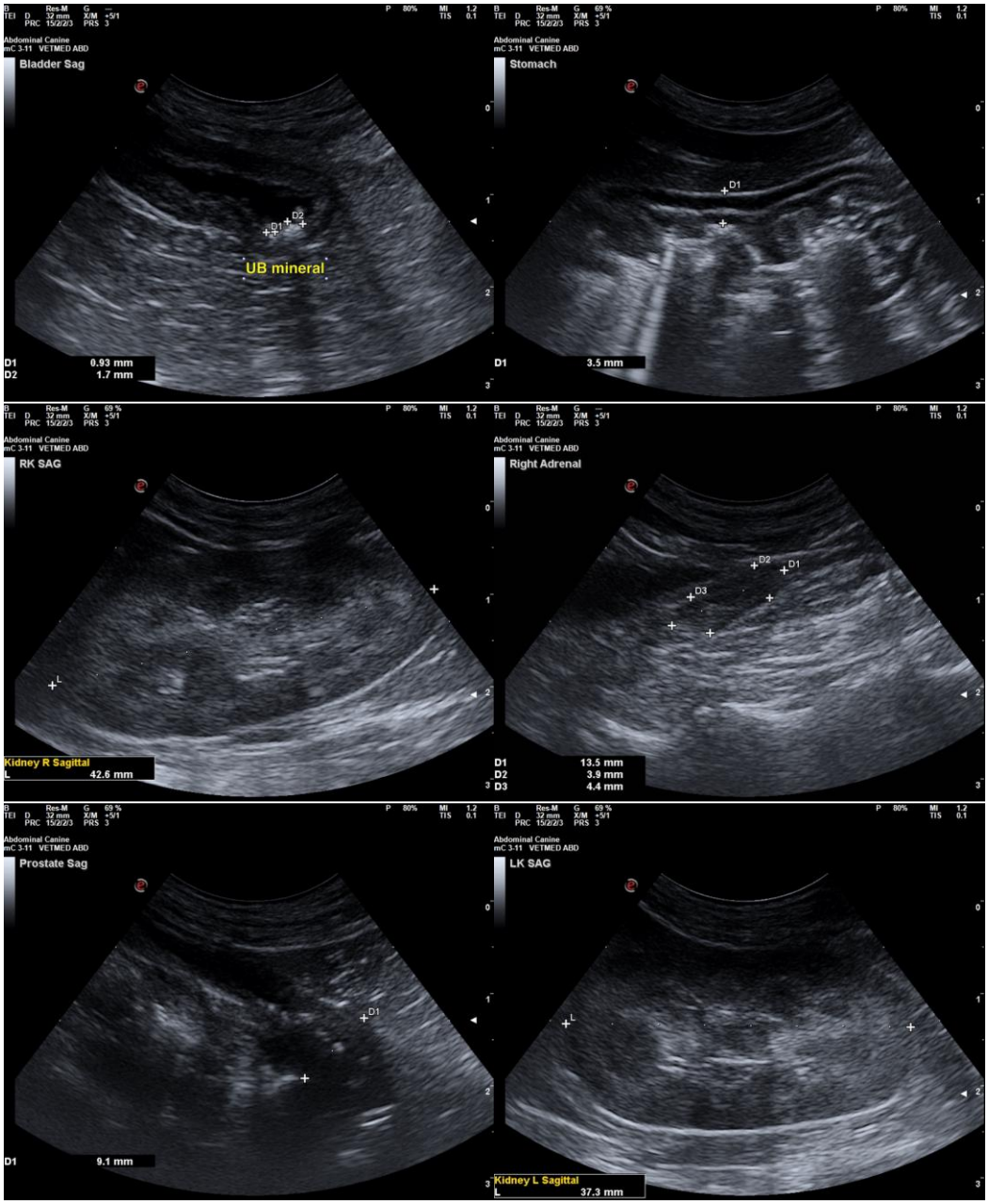
may prove beneficial. Sonographic monitoring of the gastrointestinal tract and liver is indicated if non-responsive or persistent gastrointestinal signs or evidence of progressive hepatopathy.



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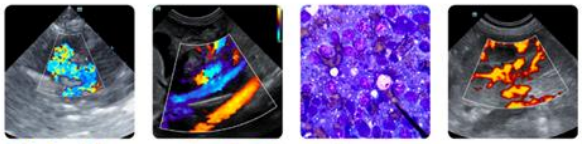

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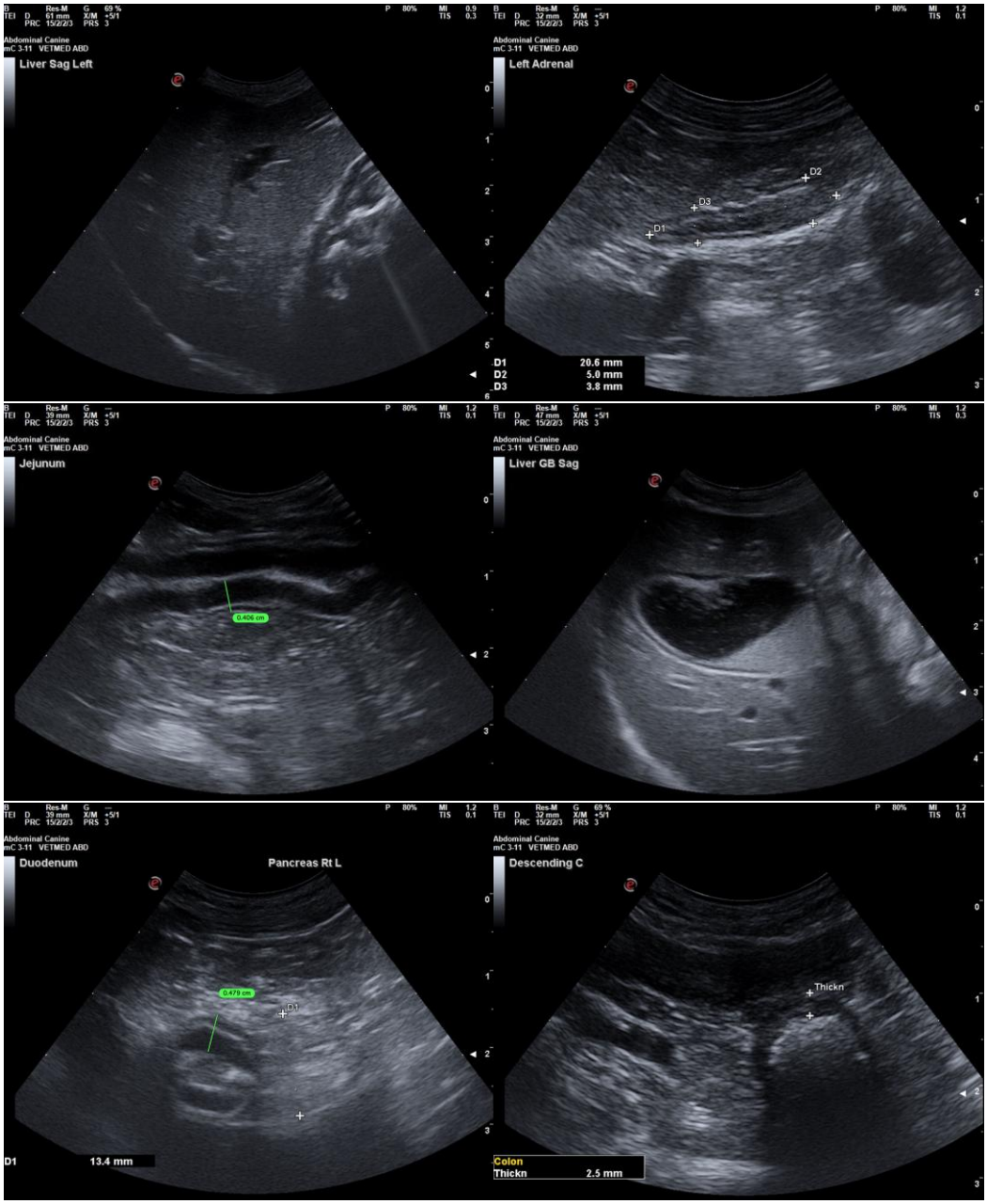


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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

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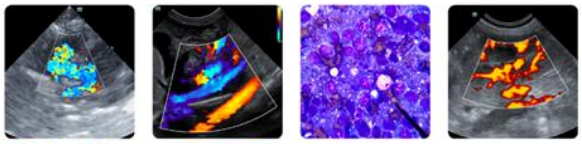

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