



**PATIENT**

Mindy Shook

**SPECIES**

Canine

**BREED**

Pekignese

**SEX**

FS

**AGE**

5 years

**WEIGHT**

5.5 kg

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Patti Mayfield DVM

**HOSPITAL NAME**

Highland VH

**REFERRING VET**

Rachel Poet DVM

**INVOICE**

17599

**DATE**

10/9/22

**PRESENTING CLINICAL SIGNS**

Mindy presented on Tuesday, 10/4/22 for evaluation of acute onset of V/D, lethargy and anorexia. It is possible she ingested a mushroom in the yard, but no other known dietary indiscretion or exposure to toxins (no known xylitol, NSAIDs, etc). She typically leads a sedentary lifestyle at home, inside a fenced yard and occasional leash walks. Mindy has PPH of seizures, well-controlled with Levetiracetam (~ 4 years). Routine blood work 6 months ago was unremarkable. Current treatments include: - IVF, Cerenia, Denamarin On Thursday, 10/6, patient is clinically improved; no vomiting, she is eating small amounts of food at night for the owner. Mild amounts of diarrhea, but no additional vomiting.

Abnormal PE/Chem/CBC/UA Results: PE: Dehydrated, abdominal pain Blood work (10/4): CBC: - RBC: 9.49 M/uL (5.65-8.87) - HCT: 63.4% (37-61) - HGB: 23.7 g/dL (13-20) - Neutrophilia, 13,530/ul (2950-11,640) - lymphopenia, 200/uL (1050-5100) - eosinopenia, 20/uL (60-1230) CHEM: - Hypoglycemia, 71 mg/dL (74-143) - Hypokalemia, 3.3 mmol/L (3.5-5.8) - ALT: \*\*\* (10-125) - ALP: 294 U/L (23-212) - GGT: 75 U/L (0-11) - Tbili: 1.7 mg/dL (0-0.9) cPL: Normal ABDO RADS: NSF

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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 was noted.

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 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. Scant to minor pyelectasia was present. The left kidney measured 4.0 cm in length. The right kidney measured 4.5 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 0.62 cm width at the caudal pole and 0.52 cm width at the cranial pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.35 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**



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The liver exhibited potential for borderline subnormal size. No evidence of hepatomegaly. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. 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 thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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**Gastrointestinal**

The visualized gastric walls were sonographically normal. The lumen of the stomach contained mild ingesta, exhibiting subtle progressive distal acoustic shadowing.

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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.

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

**Pancreas**

**WEIGHT**

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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 were evident.

**Free Abdomen**

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No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

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- Hepatopathy, exhibiting subjective potential borderline subnormal size
- Sonographically unremarkable gallbladder
- Sonographically unremarkable gastrointestinal tract/colon with mild gastric ingesta/chyme

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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The liver presentation was nonspecific without evidence of neoplastic criteria or evidence of a portosystemic vascular anomaly, given lack of concurrent renal or cystic minerals/calculi. Primary concern for nonspecific hepatitis (viral, bacterial, Leptospirosis, toxin, etc.) given predominantly elevated ALT with potential for mild vacuolar hepatopathy or nonobstructive cholestasis given the elevated ALP/GGT combination with minor total bilirubin elevation.

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Further assessment may include screening hepatic FNA cytology, primarily to assess for evidence of inflammatory cells, as well as leptospirosis titers/PCR, if potential exposure. Bile acid testing is recommended, although hepatic functionality is likely adequate assuming normal albumin, glucose, BUN and cholesterol levels. Suspect resolving gastroenteritis with potential for mild gastric hypomotility if documented NPO prior to the ultrasound. Continued gastrointestinal and hepatosupportive protocol with monitoring of the hepatic response is recommended.

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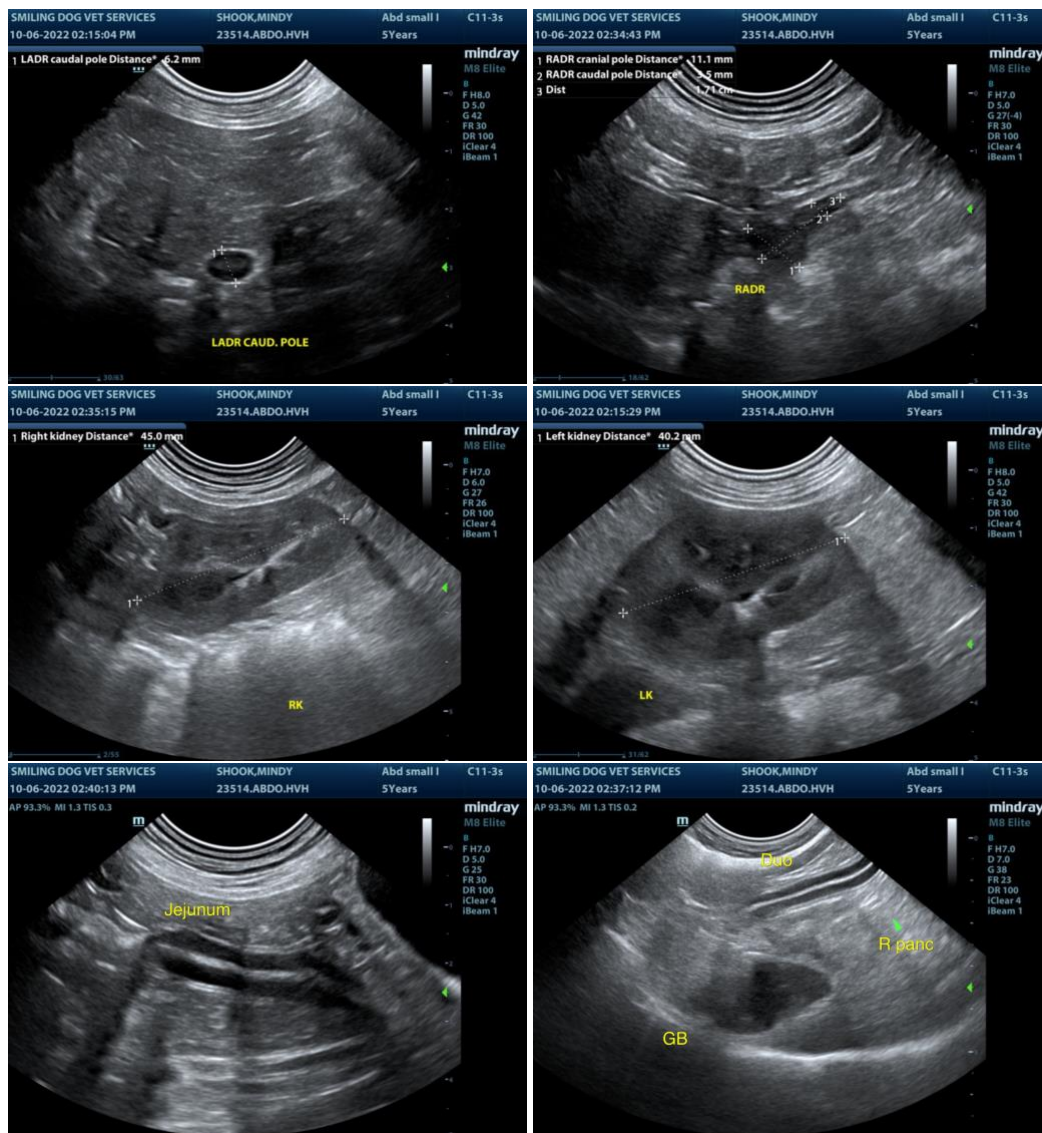
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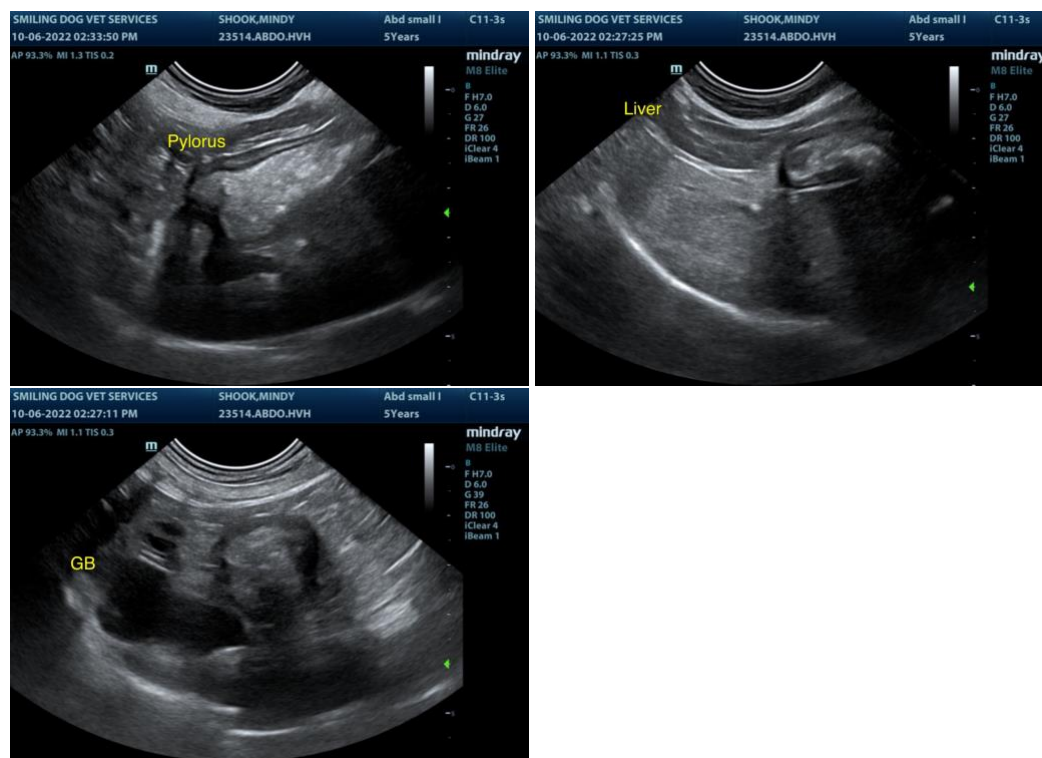
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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