



PATIENT

Zhuzhu Elmes

SPECIES

Canine

BREED

Pug

SEX

FS

AGE

9yr

WEIGHT

9.4kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Erin Wicks

HOSPITAL NAME

Shores Veterinary
Emergency Center

REFERRING VET

Dr Zippay

INVOICE

14432ag

DATE

07/29/2023

PRESENTING CLINICAL SIGNS

Presented at our hospital for supportive care transfer. Reg vet suspects pancreatitis. Drinking but not eating, no bowel movements noticed, lost 2 ½ lbs. Seen at reg vet Wednesday and was given a shot of cerenia and fluids Previous Health Concerns: Ear infection week and a half ago Current Medications: Ear drops, antibiotics started on Wednesday, has had 2 doses, last dose given was Thursday at 9pm Appetite/When did they eat last: Since Wednesday has only been eating dental chews, last ate regularly was Sunday Diet: BID purina gravy choice cuts, ½ cup of kibble, couple of treats given during day, green beans Vomiting/Diarrhea: 2 weeks ago, threw up parts of milk bone, no diarrhea Urination: ok, last bowel movement was Sunday/Monday, was straining Any changes in their environment: on the 15th of this month went swimming in a lake, then again last Saturday

Abnormal PE/Chem/CBC/UA Results: Radiographs showed a mild hepatomegaly, No obvious signs of masses CBC: WBC 3.41 L, Neu 2.76 L, Lym 0.38 L, RBC 4.51 L, Hct 32.7 L, Plt 24 L (manual 25.5) MPV 6.7 L Chem: BUN 6.1 L, ALP 478 H EPOC: BUN 4 L

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 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.

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 4.5 cm in length. The right kidney measured 4.8 cm in length.

The area of the aortic trifurcation was 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 and 0.52 cm width at the cranial pole. The right adrenal gland was indistinctly visualized. The right adrenal gland subjectively measured 0.37 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



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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 primarily anechoic luminal content and mild non-organized sediment. No evidence of gallbladder or peripheral gallbladder inflammation was present. 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.

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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.

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Pancreas

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.

Free Abdomen

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

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ULTRASONOGRAPHIC FINDINGS

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- Mild hepatomegaly-sonographically benign.
- Gallbladder debris (non-mucocele).
- Sonographically unremarkable GI tract/colon.
- Normal pancreas.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, there is no overt evidence of significant abdominal visceral pathology as a definitive cause of the patient's clinical signs.

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The liver presentation is consistent with benign hepatopathy with considerations including vacuolar hepatopathy, non-specific inflammatory hepatopathy or non-obstructive cholestasis given gallbladder sediment. Neoplastic criteria considered unlikely. Assuming normal clotting status and using a 25g needle, a hepatic FNA for screening cytology could be considered for further assessment.

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A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. Although considered unlikely considering normal adrenal presentation, a resting cortisol level to rule out occult Addison's disease is recommended. Three view chest radiographs are recommended if not done to assess for occult thoracic pathology.

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Continued as needed GI support is recommended.

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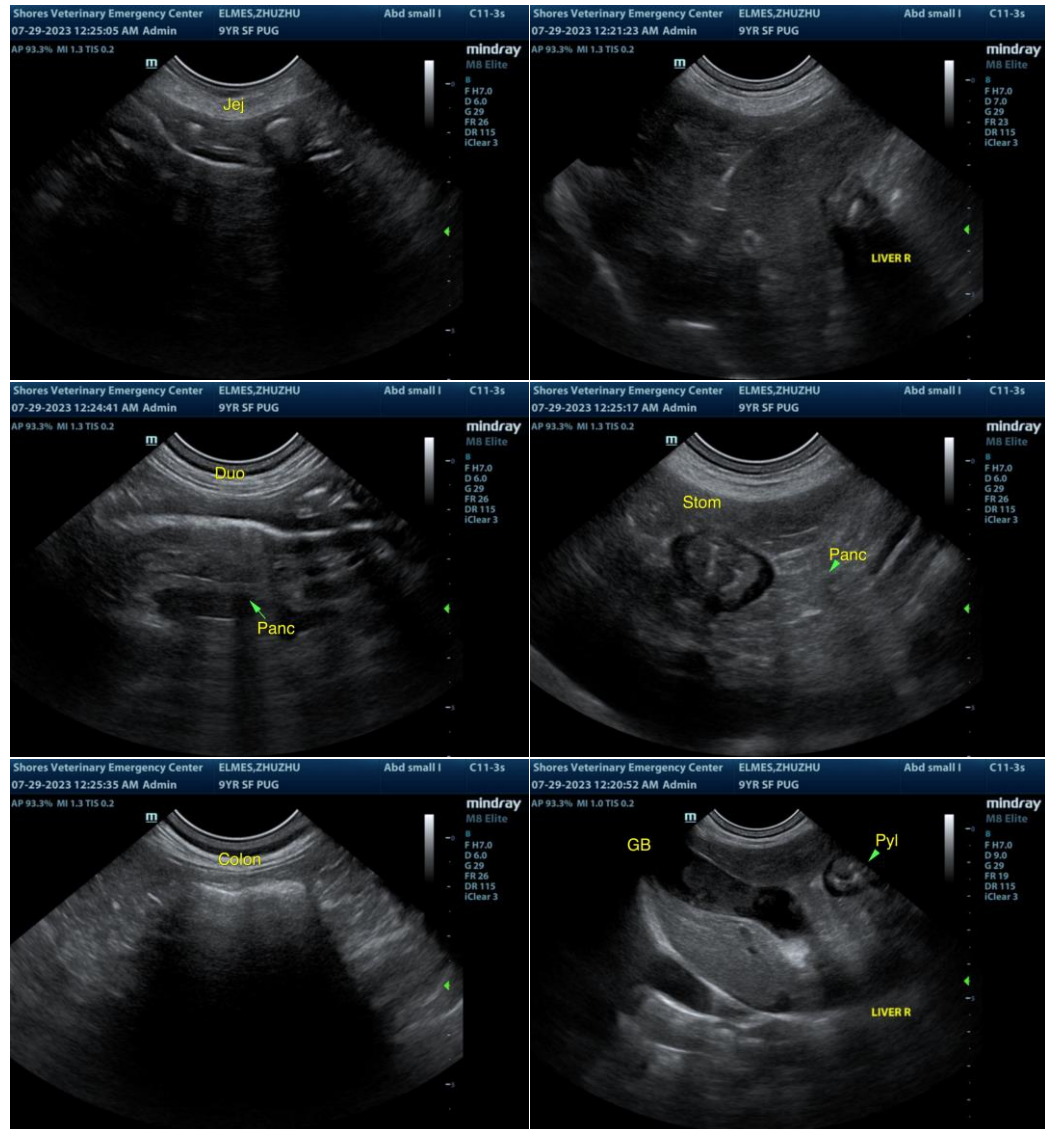
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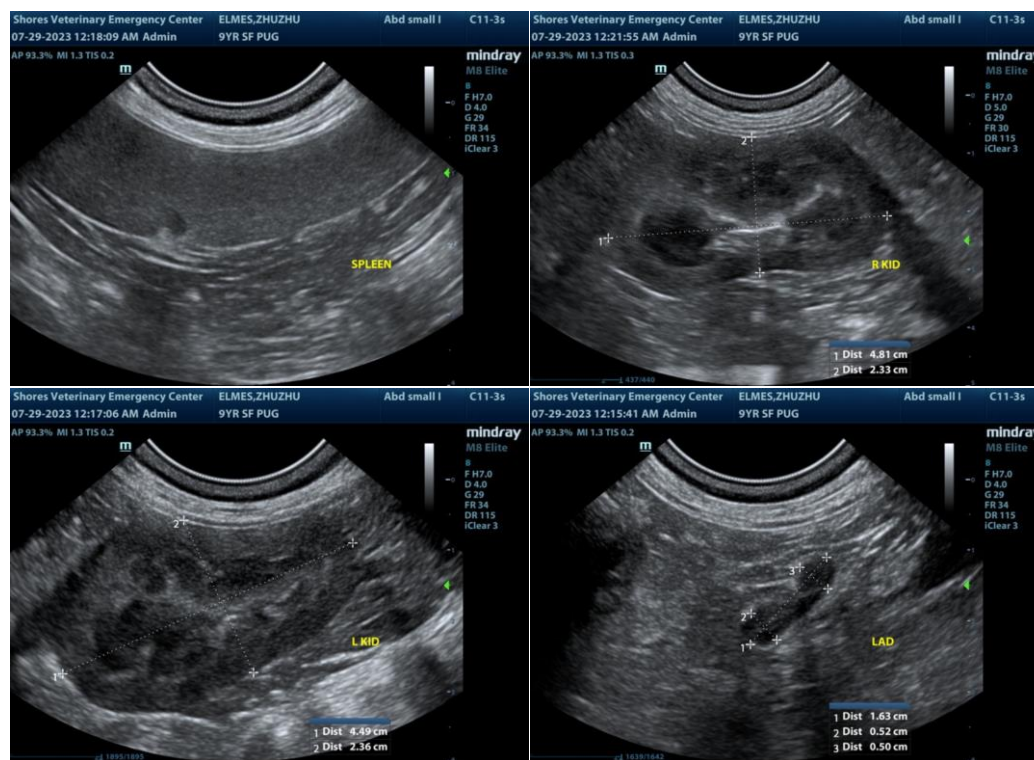
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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