



PATIENT PRESENTING CLINICAL SIGNS

Zoe Horan Presented for vomiting and anorexia. On PE: depressed, dehydrated, doughy abdomen. ALT 355; AST 873; spec 3.6. On Amoxicillin 50 mg/ml, 1.2 ml BID. Abdominal radiographs WNL

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

DSH

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Moderate nondependent to mildly congealed hyperechoic sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

SEX

FS

The area of the aortic trifurcation was free of pathology.

AGE

15 years

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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.9 cm in length. The right kidney measured 4.6 cm in length.

WEIGHT

6.6 lbs.

Adrenal Glands

The left adrenal gland was enlarged in size with primarily symmetrical to discreetly asymmetrical contour and uniform hypoechoic parenchyma. The left adrenal gland measured 0.83 cm diameter. The left adrenal gland was noted directly adjacent to the likely caudal vena cava with potential impingement upon the caudal vena cava based on color doppler assessment.

The right adrenal gland was mildly prominent in size with primarily symmetrical to discreetly asymmetrical contour and uniform hypoechoic parenchyma. The right adrenal gland measured 0.57 cm.

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDMS

Spleen

HOSPITAL NAME

Norfolk County VS

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease. Minor indistinct nondisruptive hyperechoic nodules were present, likely consistent with benign myelolipomas and not consistent with neoplastic criteria. The spleen measured 0.7 cm in diameter.

REFERRING VET

Tami Ilovich, DVM

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Liver/ Gallbladder

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

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signs of congestion. Multiple, generally small, thinly walled intraparenchymal cysts were present, containing anechoic fluid.

The gallbladder was non-distended in size with thin walls and primarily anechoic content and very minor sediment was present in the gallbladder. The common bile duct was normal without evidence of stasis or dilation.

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Gastrointestinal

BREED

DSH

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 pylorus wall measured 0.27 cm.

SEX

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The small intestine presented intact wall layering and primarily maintained 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material. The jejunum wall measured 0.22 cm. The ileocolic wall measured 0.26 cm.

AGE

15 years

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. Minor pancreatic duct dilation.

WEIGHT

6.6 lbs.

Free Abdomen

Intermittent, mildly prominent to enlarged mesenteric nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum and maintained a normal width: length ratio (<0.5). An example of lymph node size measured 0.29 cm. The lymph nodes were not consistent with inflammatory or neoplastic criteria.

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No omental masses or free fluid noted.

ULTRASONOGRAPHIC FINDINGS

IMAGING

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Pamela Harrigan, RDCS

Primary Findings

- Chronic hepatopathy, exhibiting parenchymal remodeling and multiple subjectively small hepatic cysts
- Moderate urinary bladder sediment- cellular, crystalline debris or potential mucus
- Moderate nonspecific chronic renal changes
- Left adrenomegaly with concurrent mildly prominent right adrenal gland
- Heterogeneous pancreas- potential low-grade to chronic pancreatitis
- Overtly normal gastrointestinal tract

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Secondary Findings

- Minor benign splenic nodules

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS



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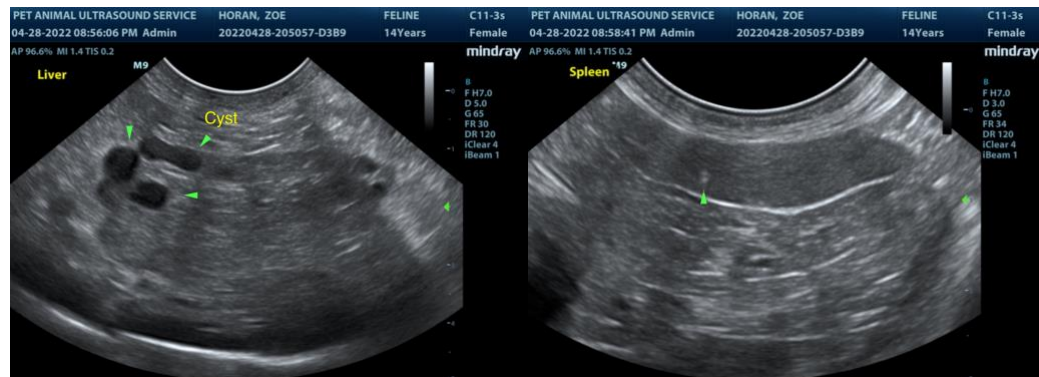
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Assessment of systemic BP, as well as potassium levels recommended given the left adrenal presentation. The left adrenal gland may indicate patient or age-related variant, benign hyperplasia or hypertrophy, although potential for emerging neoplastic criteria is of concern. The possibility of very early vascular invasion associated with the left adrenal gland cannot be excluded. If no evidence of hypertension or hyperkalemia, sonographic reassessment of the left adrenal gland in 3-4 weeks would be ideal.

Although not definitive, chronic cholangiohepatitis suspected given the elevated ALT/AST combination in this patient with potential for triad disease. Further assessment may include GI panel to include PLI/TLI/Cobalamin/Folate. Continued, as needed, gastrointestinal supportive care with potential for 24-hour hospitalization, including IV fluids may be considered.





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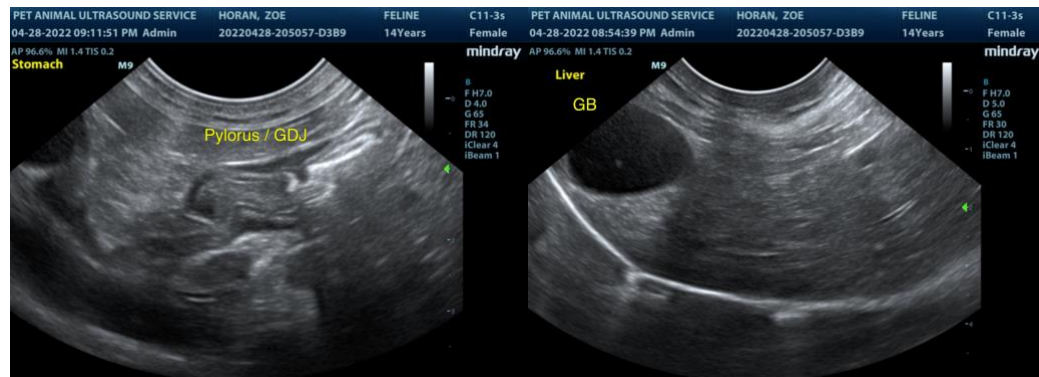
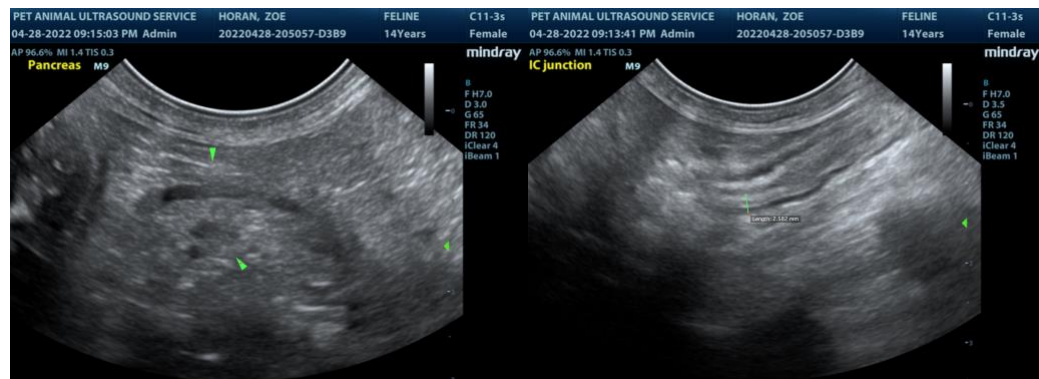
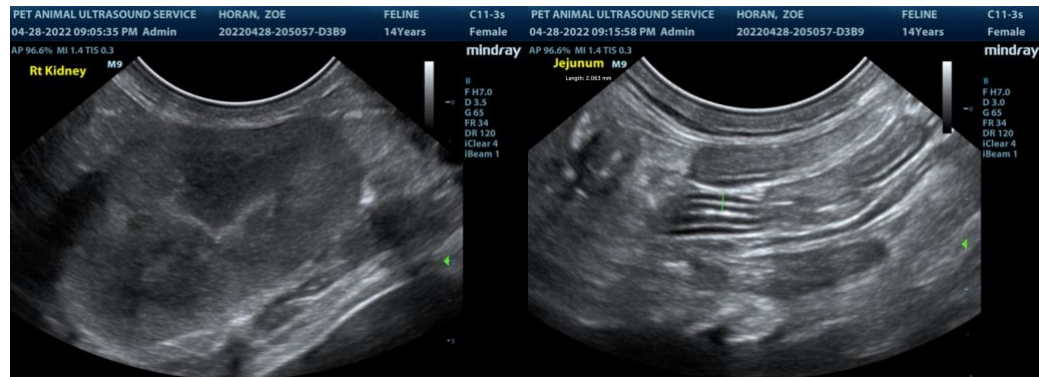
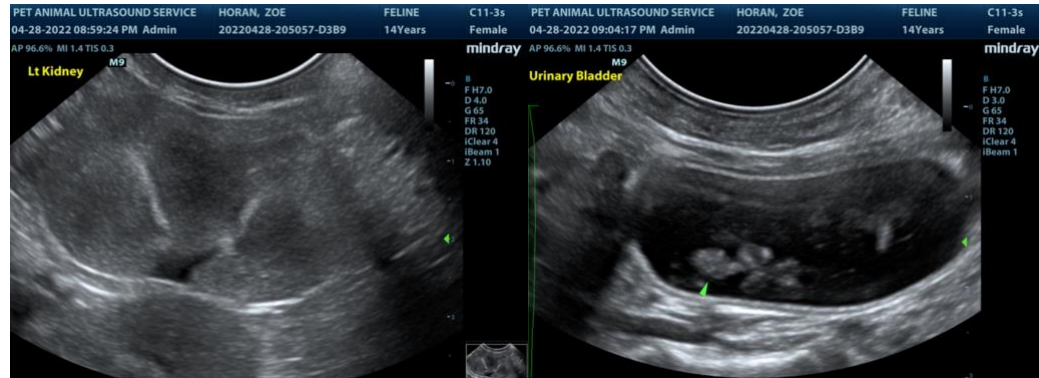
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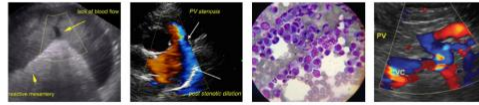
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The information and recommendations provided are based on the images presented by the



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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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info@SonoPath.com

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