



PATIENT

Hanul Shin

SPECIES

Canine

BREED

Chihuahua

SEX

M/N

AGE

12 years

WEIGHT

6.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Paul Kim

HOSPITAL NAME

Ridgefield Park AH

REFERRING VET

Dr. Paul Kim

INVOICE

17087

DATE

6/13/23

PRESENTING CLINICAL SIGNS

Patient presented to the hospital due to inappetence for 4-5 days now. Patient has also been vomiting about twice daily for the past couple of days. Patient has been trembling a lot and also has been having difficulty going up the stairs lately when usually he goes up the stairs quickly and without an issue. During examination it was noticed that the patient has jaundice. During the ultrasound, Dr. Kim did not find the gallbladder.

Abnormal PE/Chem/CBC/UA Results: Protein/Creatinine Ratio 0.8 <0.5 HIGH Globulin 3.7 1.6-3.6 g/dL HIGH AST (SGOT) 425 15-66 IU/L HIGH ALT (SGPT) 909 12-118 IU/L HIGH Alk Phosphatase 2868 5-131 IU/L HIGH GGTP 38 1-12 IU/L HIGH Result Verified Total Bilirubin 11.5 0.1-0.3 mg/dL HIGH Cholesterol 943 92-324 mg/dL HIGH Result Verified Triglycerides 601 29-291 mg/dL HIGH Platelet Count 484 170-400 103/mL HIGH Urinalysis: Protein 1+ NEGATIVE HIGH Bilirubin 3+ NEG TO 1+ HIGH Blood 2+ NEGATIVE HIGH RBC 11-20 0-3 HPF HIGH

The submitted study contained 8 video and 28 still images for review.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. No evidence of mineral or calculi was noted. 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 residual prostate was free of overt pathology.

No evidence of pathology in the area of the aortic trifurcation.

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 mild to 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 3.8 cm in length. The right kidney measured 3.95 cm in length. Minor medullary mineral was noted.

Adrenal Glands

The left adrenal gland was overtly normal in size, position, and shape. The left adrenal gland measured 0.24 cm width at the caudal pole. The right adrenal gland was not definitively visualized.

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.



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Liver/ Gallbladder

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The liver was variably enlarged exhibiting subjective lobar swelling, asymmetrical hepatic capsule contour, and generalized nonhomogeneous to hypoechoic hepatic parenchyma with increased yet indistinct portal vein borders. The gallbladder and common bile duct were not definitively visualized. The cystic and common bile ducts were normal.

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Gastrointestinal

The stomach presented intact subjective mildly prominent wall layering. The lumen was empty with mild luminal gas.

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

Free Abdomen

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Scant pocket of perihepatic, free fluid was noted between the liver and diaphragm. No overtly visualized omental lymphadenopathy was noted.

ULTRASONOGRAPHIC FINDINGS

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- Variably enlarged, nonhomogeneous, hypoechoic liver- nonspecific, acute on chronic hepatopathy with considerations including vacuolar hepatopathy, inflammatory / immune-mediated disease, hyperplasia, hematopoiesis, fibrosis, concern for occult infiltrative neoplastic criteria
- Non-visualized gallbladder
- Scant perihepatic free fluid
- Chronic renal changes with minor medullary mineral
- Heterogeneous pancreas - not sonographically consistent with significant / active pancreatitis, minor pancreatic remodeling owing to age or previous inflammation, potential for chronic pancreatitis possible
- Subjective mild gastroenteritis / inflammatory gastroenteropathy pattern

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Assuming normal clotting status, FNA cytology of the liver is recommended for further clarification. The non-visualized gallbladder is of unclear clinical significance, yet no overt evidence of pathology in the area of the expected gallbladder.

Leptospirosis titers / PCR may be considered if clinically indicated or if potential exposure.



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Low-grade / chronic pancreatitis may be suspected if evidence of cranial abdominal or subxiphoid discomfort on palpation, yet no obvious sonographic evidence of significant pancreatic pathology as a primary clinical player.

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As-needed gastrointestinal support is recommended. A guarded prognosis pending hepatic cytology, which is considered essential for further clarification in this case.

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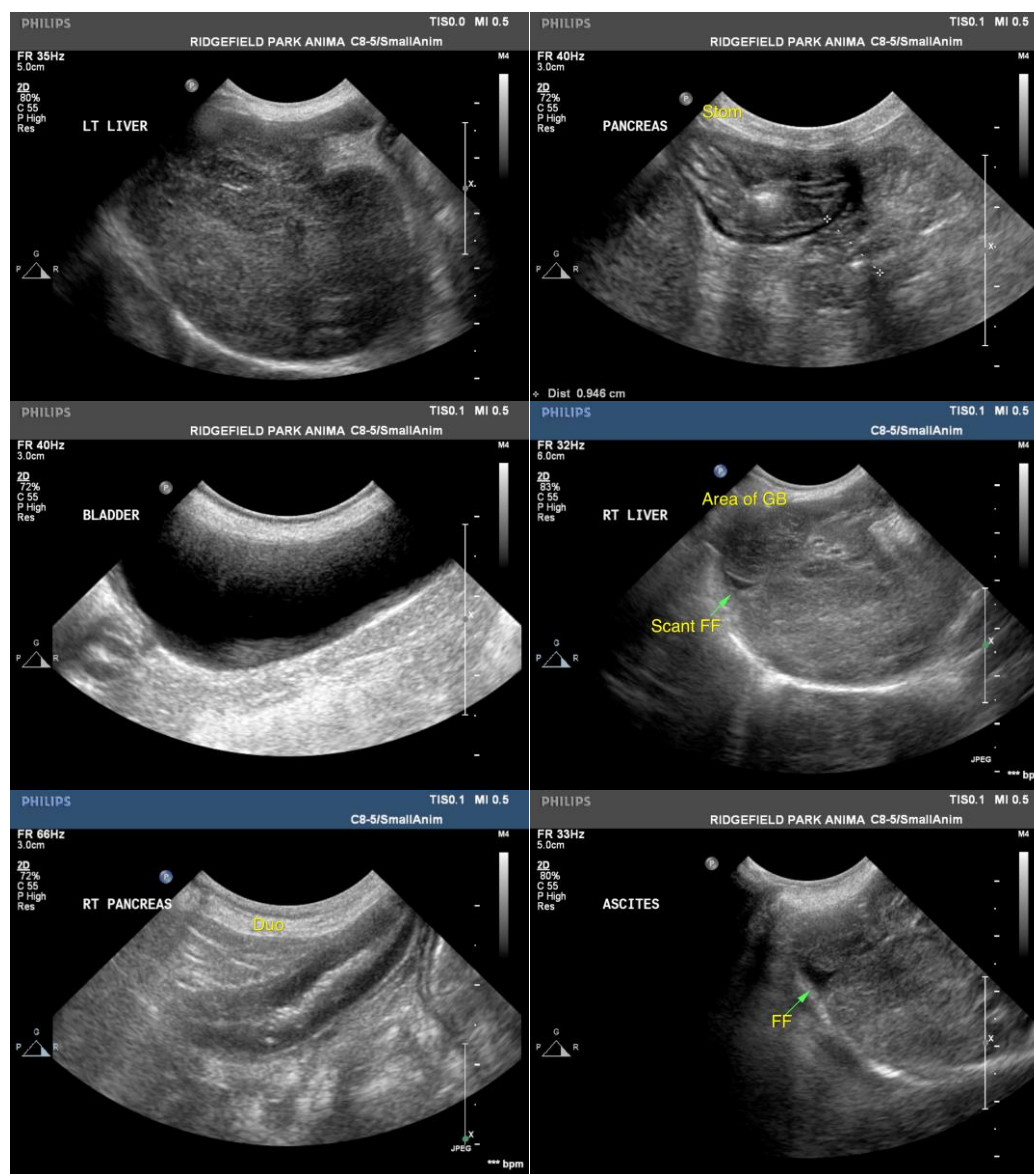
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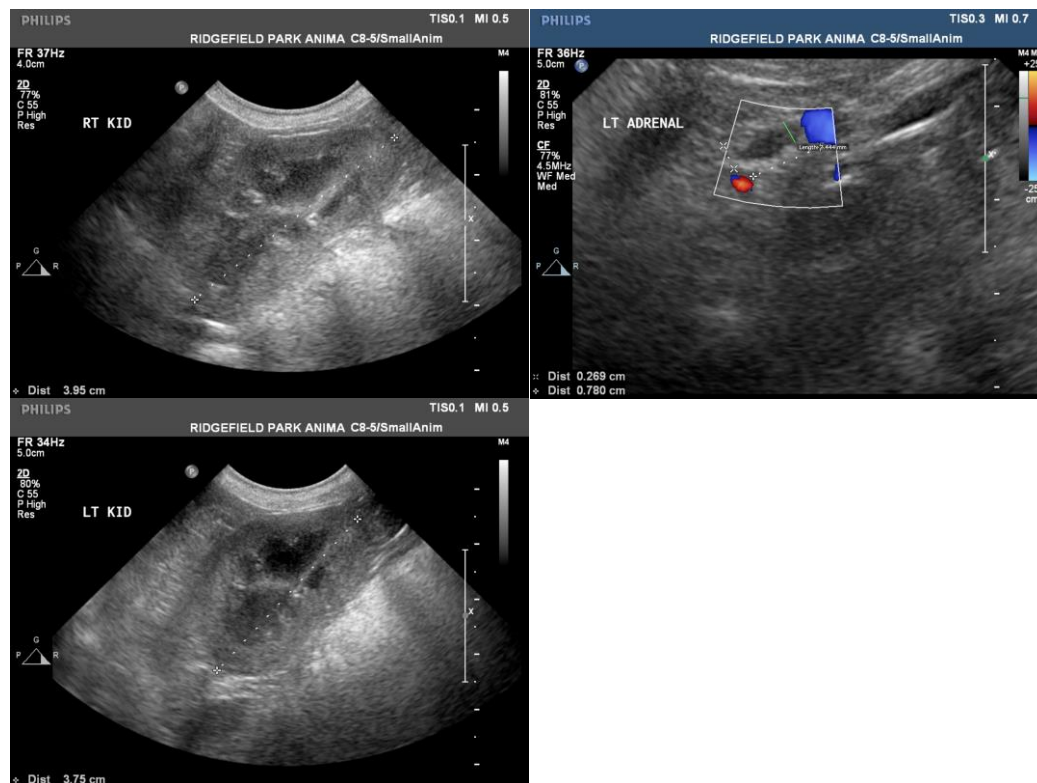
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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info@sonopath.com