

**PATIENT**

Timo Kromand

**SPECIES**

Feline

**BREED**

DLH

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

5.8 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Resolution Vet  
Ultrasound

**REFERRING VET**

Dr. Huet

**INVOICE**

35155

**DATE**

1/27/22

**PRESENTING CLINICAL SIGNS**

History of chronic renal disease. IRIS Stage 1. Has been on daily fluid therapy and enemas for constipation for the last 3 days. Past a copious amount of fecal material today prior to the scan. Sedated with butorphanol IV for the scan.

Abnormal PE/Chem/CBC/UA Results: Mild elevation of renal enzymes

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 were 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 was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.75 cm. The right kidney measured 3.5 cm.

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.35 cm. The right adrenal gland measured 0.34 cm.

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The spleen measures 0.90 cm in width at the level of the hilus. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. Mild asymmetrical medial capsule contour. 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. No overt evidence of neoplastic criteria.

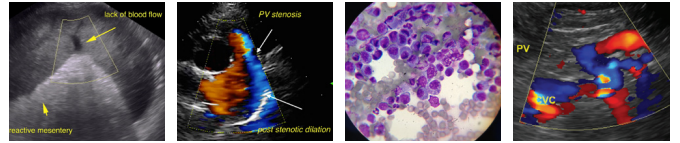
**Liver**

The liver was subjectively normal in size, structure, and contour. 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. The gallbladder was mildly subnormal in size without evidence of overdistention. Mildly prominent to hyperechoic gallbladder walls were present extending into the cystic biliary duct as well as the common bile duct. Proximal tortuous to mild common bile duct dilation was present. Common bile duct dilation measured 0.27 cm in diameter.

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. Minor retained non-shadowing ingesta/chyme present. Gastric body wall measured 0.29 cm.

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. Jejunum wall measured 0.23 cm. Duodenum wall measured 0.30 cm.



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Normal visible colon wall layers were present with semiformal to soft feces in the lumen along with gas artifact. Descending colon wall measured 0.12 cm.

**Pancreas**

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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.

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**Free Abdomen**

Intermittent mildly prominent colic lymph nodes were present. Example measured 0.52 cm in diameter. These lymph nodes were homogenous, mildly hypoechoic and smoothly margined. A normal width:length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident.

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**ULTRASONOGRAPHIC FINDINGS**

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- Mild chronic renal changes
- Non-obstructive proximal common bile duct dilation – age related variant, potential for cholangitis if previous or current history of hepatic enzyme elevations. The degree of common bile duct dilation was not consistent with post-hepatic obstruction.
- Overtly normal gastrointestinal tract with mild retained gastric ingesta/chyme and semi-formed feces in colon.
- Intermittent non-specific yet mild colic lymphadenopathy – lymphoid hyperplasia or minor reactive lymphadenitis suspected, not overtly consistent with neoplastic criteria.
- Heterogeneous pancreas – Age related pancreatic changes suspected and likely incidental. Minor potential for low-grade to chronic pancreatitis.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

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If not recently done, or if clinically indicated, reassessment of hepatic enzymes and/or spec fPL may be considered.

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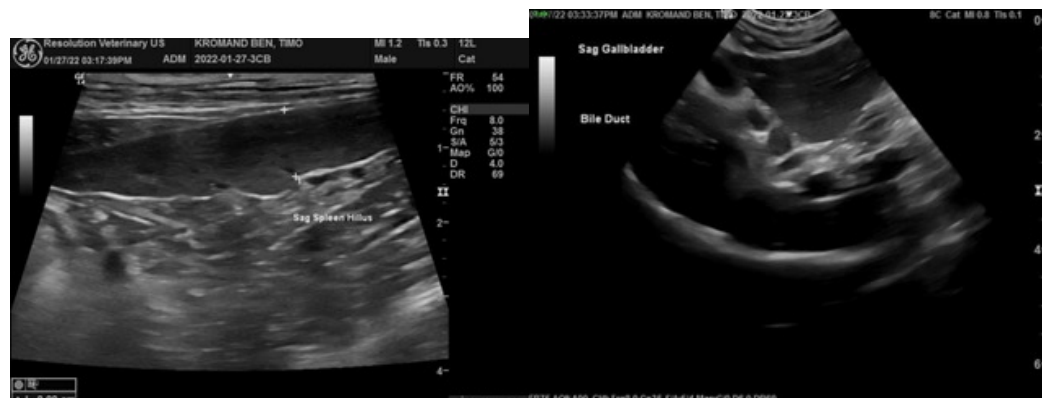
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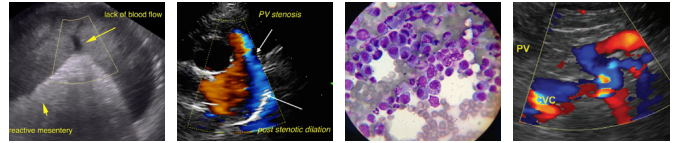
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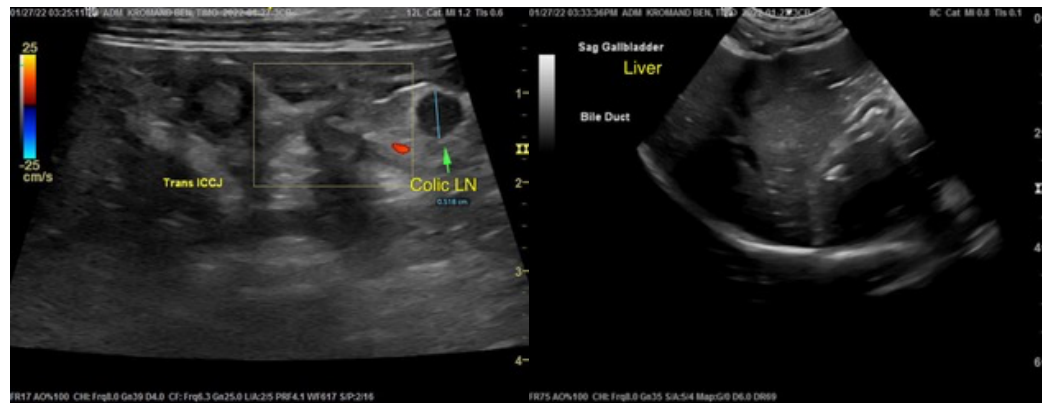
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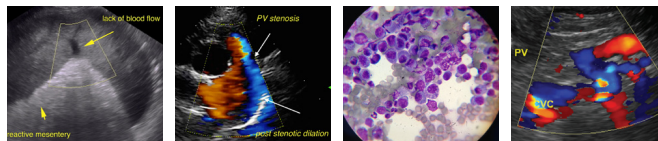
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

info@SonoPath.com

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