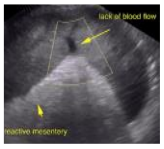
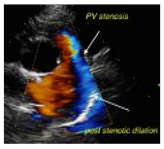
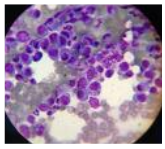
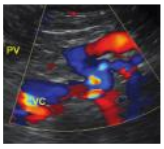
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Hoppy Hovater

SPECIES

Feline

BREED

Domestic Medium Hair

SEX

FS

AGE

2008

WEIGHT

14.72 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Amanda Lacey-Crook - SDEP Certified Sonographer

HOSPITAL NAME

Rivers Edge PMC

REFERRING VET

Dr. Jamie Sullivan

INVOICE

13956

DATE

5/31/22

PRESENTING CLINICAL SIGNS

Since January 2022, P has had chronic, intermittent vomiting and diarrhea. P also has a history of transient diabetes and is no longer on insulin. P has controlled feline asthma with flovent inhaler with aerokat mask. Increasing PU/PD but DM is still in remission. Diet change and GI meds are not improving clinical signs. P has been on forti-flora, pro-pectalin, Hydrolyzed protein diet. P has been going from constipation to diarrhea Tx: JMS to consult with IM specialist, then call owner Rec starting Vitamin B12 injections Rec an abdominal ultrasound and referral to an IM specialist Rec continuing daily Cerenia and omeprazole Current Medications: Famotidine and cerenia Abnormal PE/Chem/CBC/UA Results: Renal Tech: POSITIVE Chem: Elevated - Glucose 231 (64-170), Amylase 1238 (100-1200), PrecisionPSL 86 (8-26) CBC: Elevated - WBC 17.5 (3.5-16), Neutrophils 85 (35-75) Low - Lymphocytes 1 (20-45), Absolute Neutrophils 14875 (2500-8500) T4: 2.5 (0.8-4) UA: USG 1.034 (1.015-1.06) Protein TRACE (NEG) Pancreatic Profile: Cobalamin 615 (290-1500) Folate - LOW - 8.1 (9.7-21.6) TLI - 56.6 (12-82) Pancreatic Lipase Immuno - ELEVATED - 42.4 (0.1-3.5) A: Hyperglycemia - Rule out stress, emerging diabetes mellitus again, infection, open Neutrophilia - Rule out infection, inflammation, stress, open Elevated Amylase and Precision PSL - Rule out pancreatitis, chronic inflammation, DM, neoplasia, fibrosis, open Iris Stage 1 CKD - Borderline due to dehydration vs primary CKD Low Folate and normal B12 - consistent with diffuse disease of the proximal small intestine. Elevated PLI - consistent with pancreatitis in a cat Radiographic Findings: Dec 21, 2021 Findings: Three radiographs of the thorax are available for review. Thorax: The cardiac silhouette is within normal limits of size. Intracardiac and cardiothoracic ratios are normal, failing to demonstrate evidence of individual chamber enlargement or pericardial disease. The aortic arch is prominent. Bronchial wall thickening is visible over the lung field, suggesting the presence of a bronchial pattern. There is no evidence of pulmonary nodules or masses, lobar consolidation, enlargement of the esophagus, pleural effusion or intrathoracic lymph node enlargement. The diaphragm is intact and the extra thoracic skeletal structures are normal. Assessment: 1-Bronchial lung pattern. Feline bronchial disease as asthma or chronic bronchitis is most likely. Other differentials include heartworm disease, infectious bronchitis, fibrosis, or rarely, peribronchial neoplasia. Consider transtracheal wash or bronchoalveolar lavage, if clinically warranted. 2-Prominence of the proximal aorta is generally considered an incidental finding in geriatric cats. There is some suspicion that this may be secondary to chronic systemic hypertension, but this suspicion has not been conclusively proven. Measurement of systemic blood pressure may be of benefit.

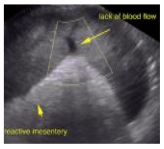
ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

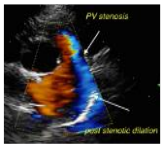
Urinary System

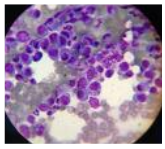
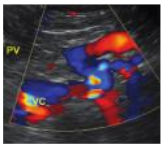
The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. Mild to moderate loss of corticomedullary border demarcation was present in both kidneys. 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. Probable caudal cortical infarction was present in the left kidney. A





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Hoppy Hovater

SPECIES

Feline

BREED

Domestic Medium Hair

SEX

FS

AGE

2008

WEIGHT

14.72 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Amanda Lacey-Crook - SDEP Certified Sonographer

HOSPITAL NAME

Rivers Edge PMC

REFERRING VET

Dr. Jamie Sullivan

INVOICE

13956

DATE

5/31/22

hyperechoic corticomedullary band, consistent with a medullary rim sign, was present. This is a nonspecific finding seen in both normal and abnormal kidneys. It may be associated interstitial renal disease, hypercalcemia, tubular necrosis, lymphoma, and FIP. However, it is a nonspecific finding. The left kidney measured 3.6 cm in length. The right kidney measured 4.1 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 0.37 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.39 cm width.

Spleen

The spleen was mildly enlarged with subtle areas of asymmetrical medial capsule contour. The spleen measured 1.1-1.2 cm width at the level of the hilus. Subtle splenic parenchyma heterogeneity was present. No masses or nodules were noted.

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. Multifocal nondisruptive well-demarcated hyperechoic intraparenchymal nodules most notable in the right lateral to caudate liver lobe were present. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was normal in size yet subjectively divided into compartments containing anechoic content.

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. The gastric body wall width measured 0.25 cm.

The small intestine exhibited generalized intact yet prominent wall layering owing to segmental to generalized propensity for mildly prominent muscularis layer. The duodenum wall width measured 0.31 cm. The jejunum wall width measured 0.30 cm. The ileocolic wall width measured 0.34 cm.

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

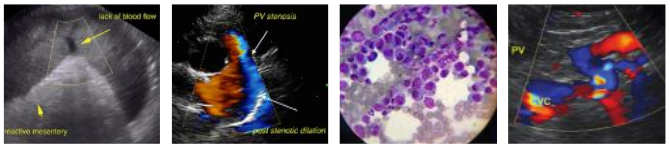
Pancreas

The pancreas exhibited mild prominent size with asymmetrical contour and nonhomogeneous to hypoechoic nodular parenchyma. No pancreatic masses were noted. Minor pancreatic duct dilation was present.

Free Abdomen

Intermittent to multiple jejunocolic lymph nodes were present. These lymph nodes were mildly prominent in size, homogenous, mildly hypoechoic and smoothly marginated. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident. An example of lymph node size was 1.0 cm x 0.5 cm. No free fluid was noted.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Hoppy Hovater

SPECIES

Feline

BREED

Domestic Medium Hair

SEX

FS

AGE

2008

WEIGHT

14.72 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Amanda Lacey-Crook - SDEP Certified Sonographer

HOSPITAL NAME

Rivers Edge PMC

REFERRING VET

Dr. Jamie Sullivan

INVOICE

13956

DATE

5/31/22

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Suspect IBD
- Nonhomogeneous to nodular pancreas - suspect concurrent to associated chronic to chronic active pancreatitis with probable areas of nodular hyperplasia, neoplastic criteria is thought less likely
- Associated subjective benign / reactive jejunocolic lymph nodes - reactive hyperplasia or lymphadenitis likely
- Bilateral chronic renal changes with nonspecific medullary rim sign
- Multifocal nondisruptive likely benign hepatic nodules - suspect multifocal areas of nodular hyperplasia or lipogranulomas
- Mild nonspecific splenomegaly

Secondary Findings

- Probable bilobed gallbladder - normal variant in a cat

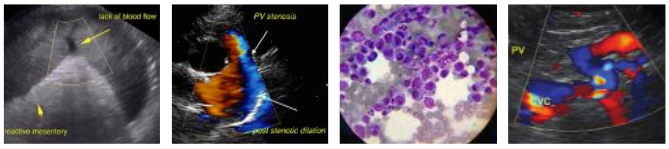
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the patient's chronic gastrointestinal signs, the small intestine exhibited evidence of inflammatory mural changes with likely chronic to chronic active pancreatitis as a contributing factor. Minor potential for emerging low-grade intestinal neoplasia i.e., lymphoma which may present in a similar sonographic manner cannot be definitively excluded yet thought less likely. Intestinal biopsies would be required for a definitive diagnosis.

The mild nonspecific splenomegaly is not overtly consistent with neoplastic criteria with considerations including patient variant, hyperplasia, hematopoiesis, and incidental splenitis with splenic neoplasia considered a less likely differential diagnosis. Continued monitoring for evidence of persistent / progressive splenomegaly, +- screening splenic FNA, using a 25-gauge needle and assuming normal clotting status, especially if evidence of weight loss, would be reasonable.

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

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Hoppy Hovater

SPECIES

Feline

BREED

Domestic Medium Hair

SEX

FS

AGE

2008

WEIGHT

14.72 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Amanda Lacey-Crook - SDEP Certified Sonographer

HOSPITAL NAME

Rivers Edge PMC

REFERRING VET

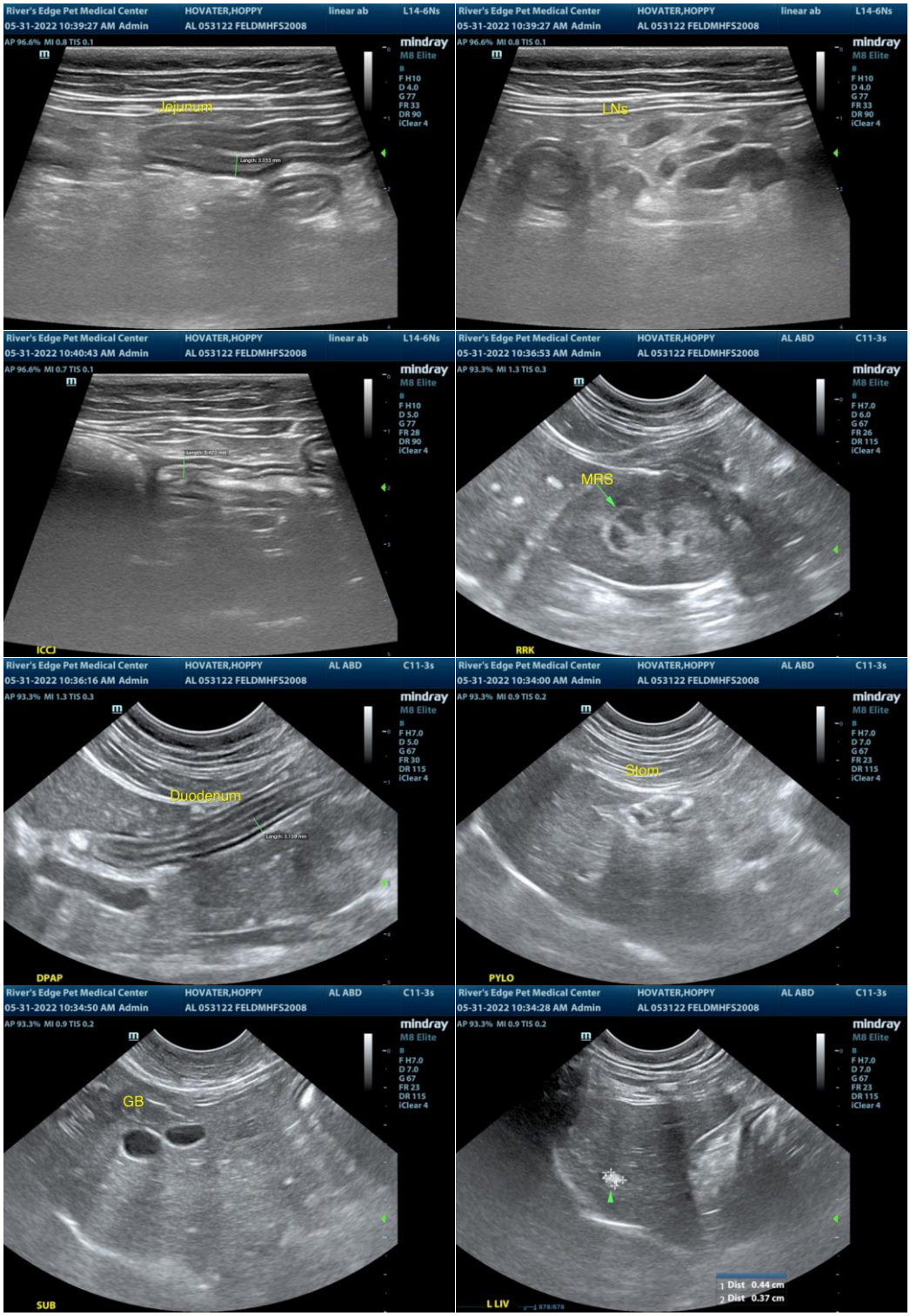
Dr. Jamie Sullivan

INVOICE

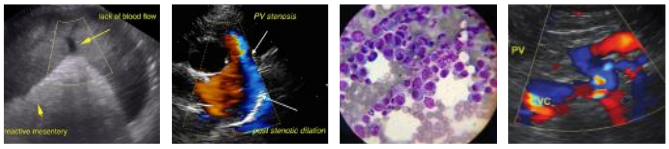
13956

DATE

5/31/22



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Hoppy Hovater

SPECIES

Feline

BREED

Domestic Medium Hair

SEX

FS

AGE

2008

WEIGHT

14.72 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Amanda Lacey-Crook - SDEP Certified Sonographer

HOSPITAL NAME

Rivers Edge PMC

REFERRING VET

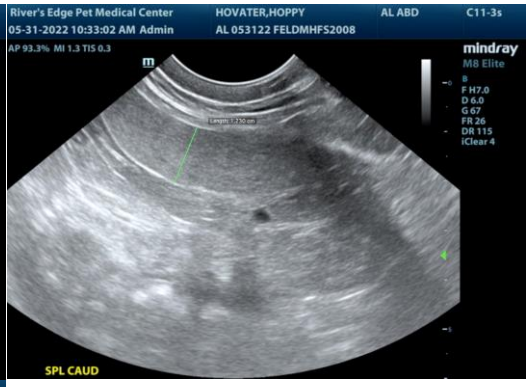
Dr. Jamie Sullivan

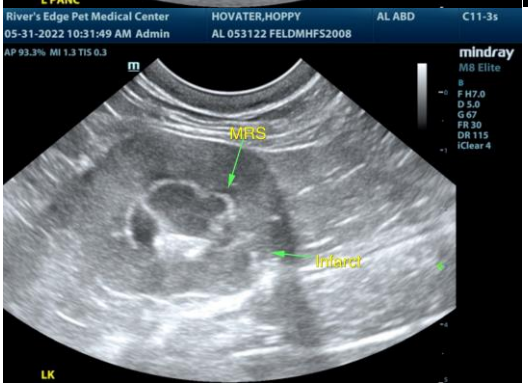
INVOICE

13956

DATE

5/31/22





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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com

For an additional charge, internal medicine consult can be utilized through Sonopath.com. You can select the internal medicine drop down at http://spa.sonopath.com/.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services