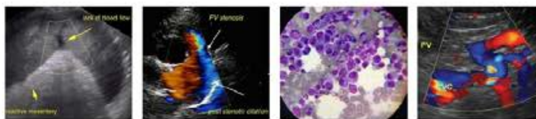


PATIENT

Merlin Tribett

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

10 Years

WEIGHT

2.8 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Advanced PetCare of Nevada

REFERRING VET

Dr. Alexis Hazelwood

INVOICE

44690

DATE

8/15/23

PRESENTING CLINICAL SIGNS

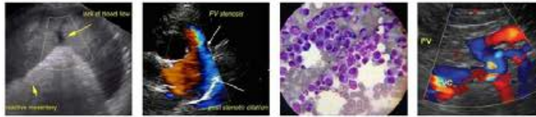
Adopted Jan 2023- Dx'd renal disease & enteritis – fecal was negative. He was started on Proviable and EN – no notes regarding resolution. LABs 11/18 shows USG 1.024, PCV 35%, TP 8.2, BUN 30-40. Visit to ER for hematuria, pollakiuria, stranguria, and vocalization beginning of February 2023 ~1 month after O adopted him. UA showed hematuria, proteinuria, and rare bactiuria. Urine culture was negative. BUN elevated at 43 (ref range 15-34) and Creatinine 3.3 (ref range 1-2.2). HCT slightly low at 30% (ref range 30-40). He was prescribed Gabapentin and Prazosin. On 2/7/23 he saw primary DVM - he was BCS 3/9, dental disease, and muscle atrophy - otherwise no significant findings. Labwork showed HCT 31.9% (7.12-11.46), Neutrophilic Monocytic Leukocytosis (WBC count 17.6 w/ ref range 3.9-19, Neutrophilia 15.5 w/ref range 2.62-15.17), Creatinine 3.3 (ref range 0.9-2.3), and BUN 53 (16-37) –stage III CKD, mild hypoalbuminemia (2.4, ref range 2.6-3.9), mild hypophosphatemia. His UA showed proteinuria, hematuria (significant), and pyuria; no bacteria seen. He was prescribed Mirtazepine transdermal, Revolution plus, Orbofloxacin. recheck on 2/28/23 - – Stage II CKD. Creatinine 2.4, BUN 43 –. Persistent hematuria and proteinuria, resolved pyuria. Persistent neutrophilic monocytic leukocytosis (WBC 25.3, neutrophils now 21.3). Persistent hypoalbuminemia – 2.4. He had gained a small amount of weight. On July 19 2023, – chronically picky eater since adopting him. Otherwise drinking well and using litterbox regularly. He vomits around once per week, occasional soft stool. Labs showed persistent mild anemia (HCT 33.1 – same ref range), Leukocytosis of 26.5 with neutrophilia of 22.8k. SDMA 19, BUN 54, and Creatinine 2.8 – relatively stable compared to previous labwork. Albumin persistently mildly decreased at 2.4. Persistent proteinuria, pyuria, and hematuria; no bactiuria observed. Completed course of Clavamox 1Ml bid X7 days and prescribed Buprenorphine PRN. P was stable with no obvious clinical changes. Starting end of last week, he started to have decreased appetite progressed to anorexia, then started having diarrhea on Saturday – hematochezia and had been vomiting. Stool has contained fresh blood and currently the stool itself is a red color per O; at ER noted some fresh blood dribbling from anus. Observed hematuria in litterbox, in clinic today. He went to ER 8/13/23 and labwork showed worsened azotemia (creatinine 6.3 – ref range 0.8-2.4), BUN 85 (ref range 16-36), worsened leukocytosis 44k with neutrophilia 32k, and persistent hypoalbumnemia (2.3 – ref range 2.3-2.9). They gave fluids, SQ cerenia, SQ Unasyn, prescribed Clavamox, prescribed Elura, and prescribed SQ fluids daily 50 mL. ER recommended hospitalization and further diagnostics – O declined and elected to follow up with us. As of today, P has had no improvement – continues to have diarrhea and is not eating. He licked some gravy from food last night, but nothing more. Vomited once on Sunday –clear fluid. Repeated labwork today – progressing leukocytosis at 50k, neutrophilia at 44k, Creatinine 4.5, BUN 81, phosphorus high-end of normal (7.3 (ref range is 3.1-7.5). HCT worsened at 23.7%, thrombocytosis, and elevated lipase. He has lost 0.54 pounds since 7/19/23. He was mildly dehydrated on presentation today with pale mucous membranes. BCS 2/9. Gave Cerenia SQ, SQ Norm-R, prescribed Fortiflora,

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi. The distal left ureter is prominent and mildly dilated, its junction with the bladder is not clearly visualized. A single prominent ureteral jet is visualized.

The left kidney has a normal shape and size (5.05cm). Overall echogenicity is increased with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. A cortical cyst is noted measuring



PATIENT

Merlin Tribett

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

10 Years

WEIGHT

2.8 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Advanced PetCare of Nevada

REFERRING VET

Dr. Alexis Hazelwood

INVOICE

44690

DATE

8/15/23

0.70 cm x 0.80 cm. There is significant pyelectasia present measuring 0.68 cm, with a dilated proximal ureter at 0.60, which is followed distally and is dilated to 0.21 cm at the level of the urinary bladder. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths or infarcts. Renal vasculature is normal.

The right kidney is large (4.06 cm) and hyperechoic with decreased corticomedullary distinction. Mild pyelectasia noted at 0.30 cm and mild dilation of the ureter measuring 0.36 cm proximally. It cannot be visualized more distally. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths or infarcts. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.56 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.67 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

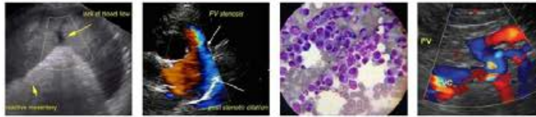
The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The bile duct appears somewhat tortuous and dilated measuring 0.36 cm proximally. This can be followed to the level of the duodenal papilla with no obvious obstruction.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.16 cm. Duodenum wall measures 0.25 cm. The ileum measures 0.21 cm and is fluid dilated. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. The colon appears fluid distended in its entirety from the ileocecal junction to the descending colon with no evidence of wall thickening or loss of layering.



PATIENT

Merlin Tribett

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

10 Years

WEIGHT

2.8 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Advanced PetCare of Nevada

REFERRING VET

Dr. Alexis Hazelwood

INVOICE

44690

DATE

8/15/23

Pancreas

The pancreas is large and hypoechoic to surrounding mesentery. There is a 0.73 cm hypoechoic nodule visualized in the region of the right limb of the pancreas. There is evidence of mild regional mesenteric inflammation. Consistent with mild/moderate pancreatitis.

Free Abdomen

There is a scant amount of free fluid. There are enlarged mesenteric lymph nodes visualized. One measures 0.86 cm. Another measures 0.55, and 0.35 cm. The omentum is mildly hyperechoic in the region of the pancreas and the enlarged lymph nodes.

PRIMARY FINDINGS

- Hyperechoic kidneys with decreased corticomedullary distinction, pyelectasia, and hydroureter. Changes are more severe in the left kidney than the right kidney. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s)could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Prominent, hypoechoic, mottled pancreas in the left and right limb with a hypoechoic focal nodule – The pancreatic changes are most consistent with moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving. The nodule visualized could represent a benign or neoplastic lesion (lymph node, adenoma, carcinoma, etc.).

- Mild to moderate mesenteric lymph node enlargement – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

SECONDARY FINDINGS

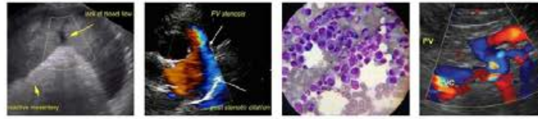
- Dilated/tortuous bile duct – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).

- Fluid distended colon and distal ileum – Findings are consistent with the diarrhea reported.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Both kidneys appear large and hyperechoic with significant pyelectasia and hydroureter. These changes are more significant on the left than the right. No obvious focal obstruction is visualized. Consider a contrast study (ideally a contrast CT scan or IVP) to further evaluate the ureters, looking for any obstruction, strictures, ectopic ureters, etc. Additionally, recommend a urinalysis and culture and blood pressure evaluation (if not recently done).

The large bowel and the distal small bowel appear fluid dilated. No focal lesions are visualized associated with the gastrointestinal tract to explain the changes observed, but diffuse small intestinal disease is suspected based on the information provided. Additionally, there is likely concurrent large bowel disease. Consider the following:



PATIENT

Merlin Tribett

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

10 Years

WEIGHT

2.8 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Advanced PetCare of Nevada

REFERRING VET

Dr. Alexis Hazelwood

INVOICE

44690

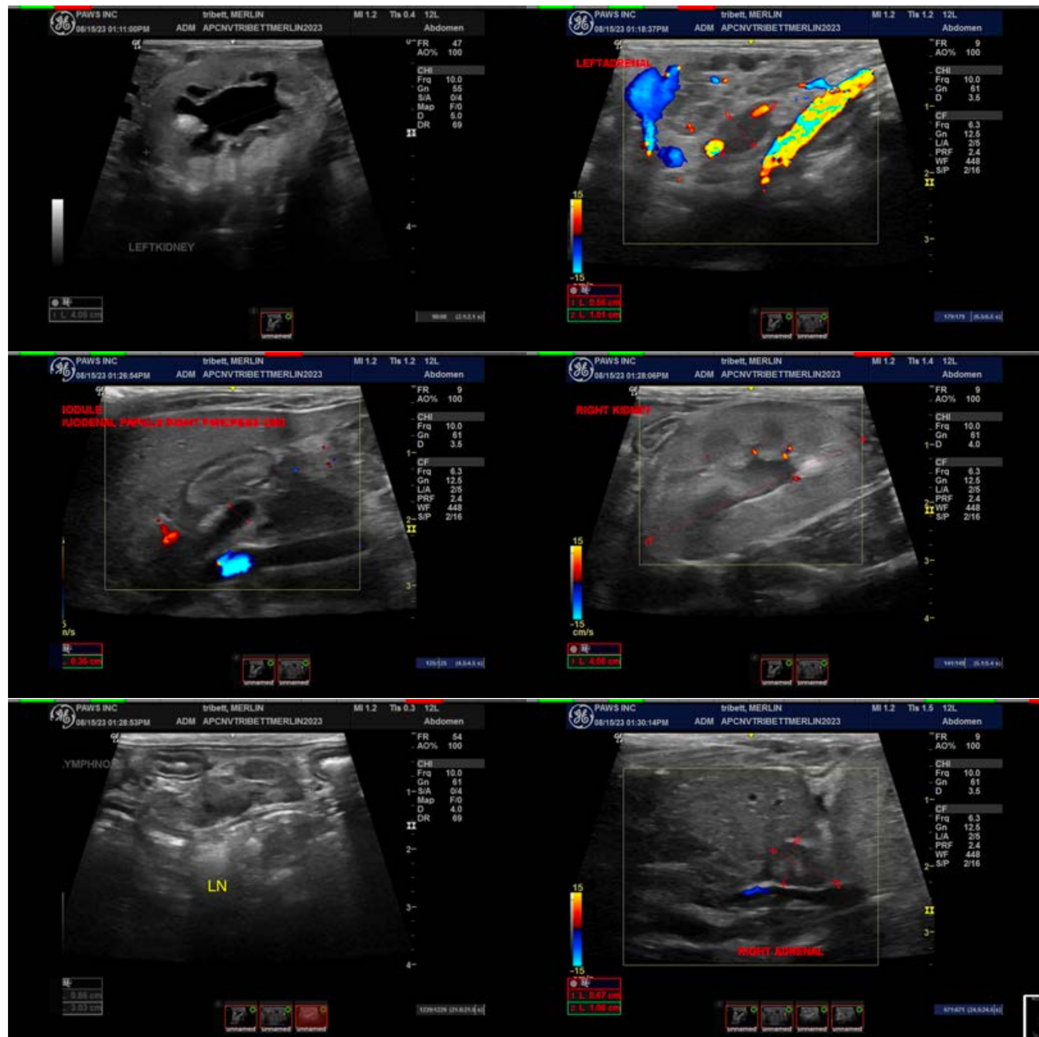
DATE

8/15/23

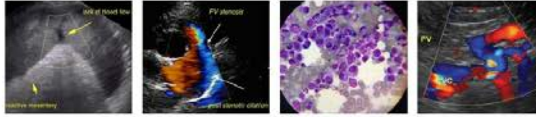
- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Recommend chronic probiotic therapy.
- Ideally with these types of symptoms an upper and lower GI endoscopy would be performed to obtain information, looking for a possible cause of a protein losing enteropathy and the bloody diarrhea reported.

The pancreas is prominent in both limbs with mild surrounding reactive mesentery and a hypoechoic nodule. Correlate these findings with a quantitative fPLI level and recommend medical management for pancreatitis. If a window for aspiration of the nodule can be obtained, consider a fine needle aspirate.

There are several prominent/enlarged mesenteric lymph nodes throughout the abdomen. Consider a fine needle aspirate, looking for evidence of inflammation, round cell neoplasia, infection, etc.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



PAWS
Portable Animal Western Sonography, Inc.
IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Merlin Tribett

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

10 Years

WEIGHT

2.8 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Advanced PetCare of Nevada

REFERRING VET

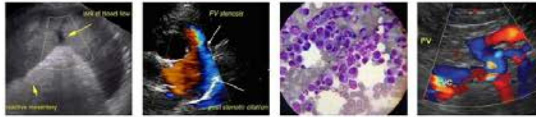
Dr. Alexis Hazelwood

INVOICE

44690

DATE

8/15/23



PATIENT

Merlin Tribett

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

10 Years

WEIGHT

2.8 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Advanced PetCare of Nevada

REFERRING VET

Dr. Alexis Hazelwood

INVOICE

44690

DATE

8/15/23

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

info@sonopath.com