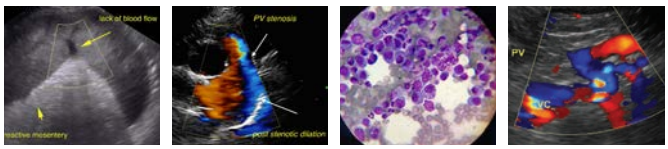
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Zyger Wilke

SPECIES
Feline

BREED
DSH

SEX
Male

AGE
14 Years

WEIGHT
5.83 kg

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Elyse Hauer

HOSPITAL NAME
Mariposa Vet Hospital

REFERRING VET
Dr. Elyse Hauer

INVOICE
41140

DATE
9/8/22

PRESENTING CLINICAL SIGNS

No previous history prior to presentation. 2 days of anorexia. Had diarrhea 2 days ago and was dry-heaving. Thoracic radiographs look relatively clear. Head held low and pupils dilated, seems to stagger when walking. Mildly icteric. Very dehydrated. Breathing well, lungs sound clear, no heart murmur. Abnormal PE/Chem/CBC/UA Results: Started on IV fluid therapy 3 hours prior to ultrasound. Elevated ALKP, ALT, bilirubin. K and electrolytes are normal. T4 and FIV/FeLV send to the lab, waiting on results. U/A - pending. Thoracic radiographs are normal (in the abdomen seen - looks like small amount of nephrocalcinosis in left kidney). Will be starting hospitalization, antibiotics, nutritional support, fluid therapy, awaiting results of ultrasound and other tests.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The kidneys are bilaterally mildly large (upper limits of normal size). The left kidney measures 4.35 cm. The right measures 4.71 cm. They are mildly irregular in shape and diffusely echogenic with mildly decreased corticomedullary distinction and slightly decreased visualization of normal internal architecture. There is no pyelectasia noted. However, there is non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing in both kidneys.

Adrenal Glands

The areas of the adrenal glands are examined without evident pathology.

Spleen

Spleen is largely normal in appearance (shape, echotexture and echogenicity); however, it is volume contracted. Hydration status assessment is recommended.

Liver

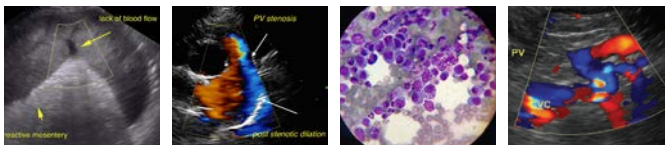
Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated.



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

PATIENT

Zyger Wilke

SPECIES

Feline

BREED

DSH

SEX

Male

AGE

14 Years

WEIGHT

5.83 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Elyse Hauer

HOSPITAL NAME

Mariposa Vet Hospital

REFERRING VET

Dr. Elyse Hauer

INVOICE

41140

DATE

9/8/22

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Hyperechoic hepatomegaly** – This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- **Inflammatory bowel disease (IBD) pattern –** Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- The appearance of the kidneys could be consistent with chronic interstitial nephritis or glomerular nephritis. Given the hyperechoic appearance and mildly increased size, toxic insult and/or infectious disease such as pyelonephritis, etc. cannot be ruled out. Even infiltrative neoplasia such as lymphoma and/or FIP could be considered if supporting evidence is present elsewhere. A normal variant due to fat deposition is also possible, and therefore this finding should be interpreted in combination with laboratory changes and/or urinalysis changes to suggest kidney disease.

SECONDARY FINDINGS

- Urinary bladder debris

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Differentials for this patient including the reported neurologic signs, the increased liver enzymes, and the changes to the kidneys, etc. include a toxin or infectious disease or infiltrative neoplasia, etc. Therefore, recommendations include:

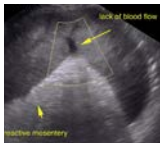
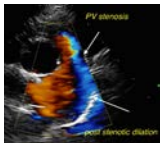
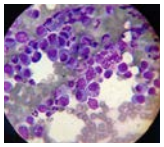
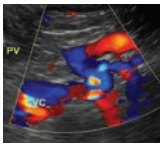
If not recently evaluated, a blood pressure is recommended.

Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

A fine needle aspirate of the liver is recommended if patient's coagulation status is appropriate.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Zyger Wilke

SPECIES

Feline

BREED

DSH

SEX

Male

AGE

14 Years

WEIGHT

5.83 kg

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Elyse Hauer

HOSPITAL NAME

Mariposa Vet Hospital

REFERRING VET

Dr. Elyse Hauer

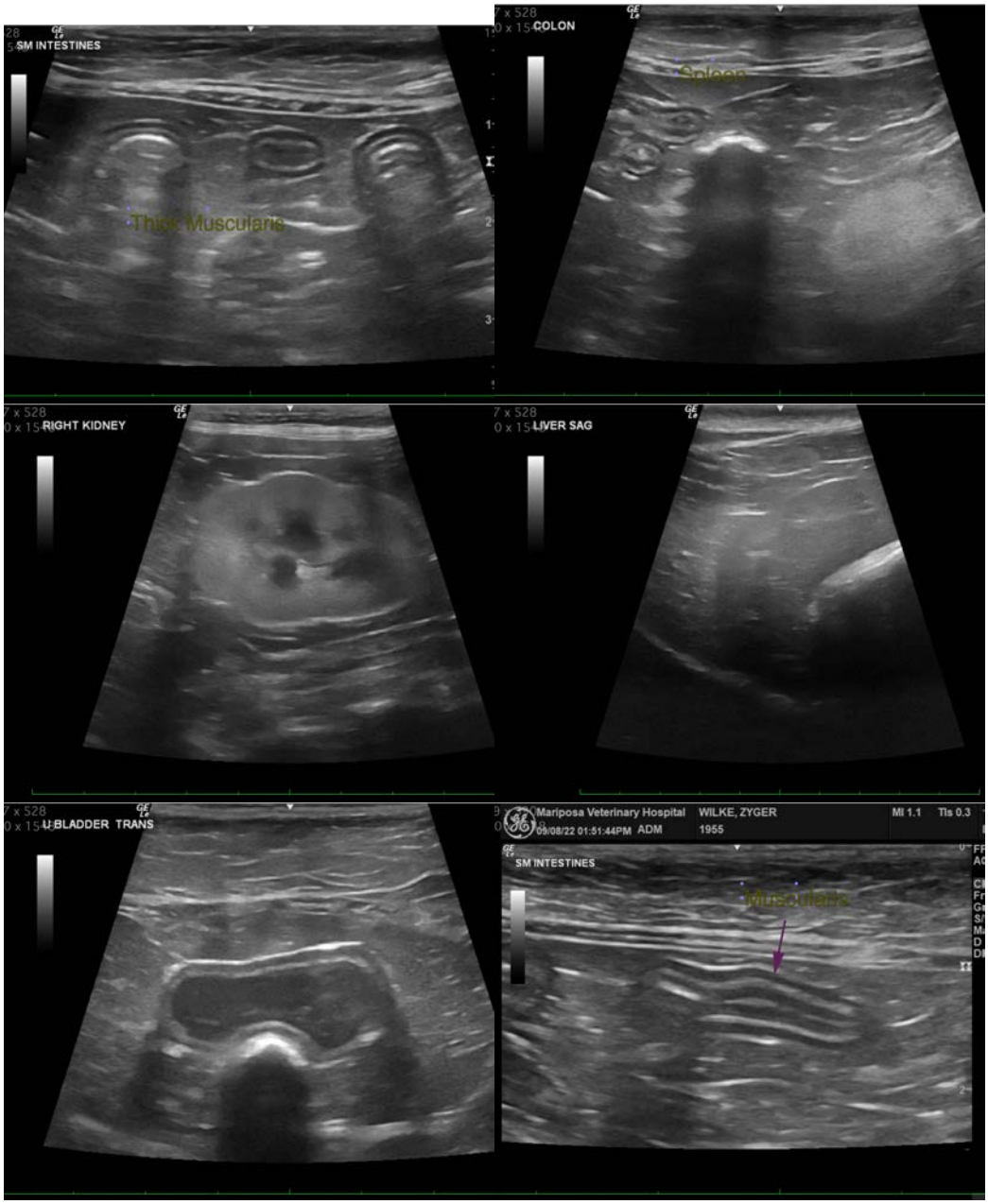
INVOICE

41140

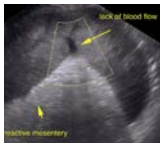
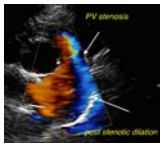
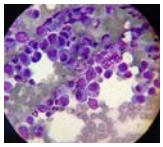
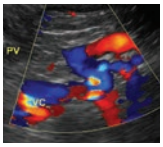
DATE

9/8/22

In the meantime, treatment recommendations include fluid therapy, anti-emetics, gastroprotectants, hepatic nutraceuticals such as ursodiol and/or Denamarin, and broad spectrum antibiotics. Nutritional support is critical to prevent/manage concurrent hepatic lipidosis, so appetite stimulants and/or, if indicated, feeding tube placement is also recommended.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Zyger Wilke

SPECIES

Feline

BREED

DSH

SEX

Male

AGE

14 Years

WEIGHT

5.83 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Elyse Hauer

HOSPITAL NAME

Mariposa Vet Hospital

REFERRING VET

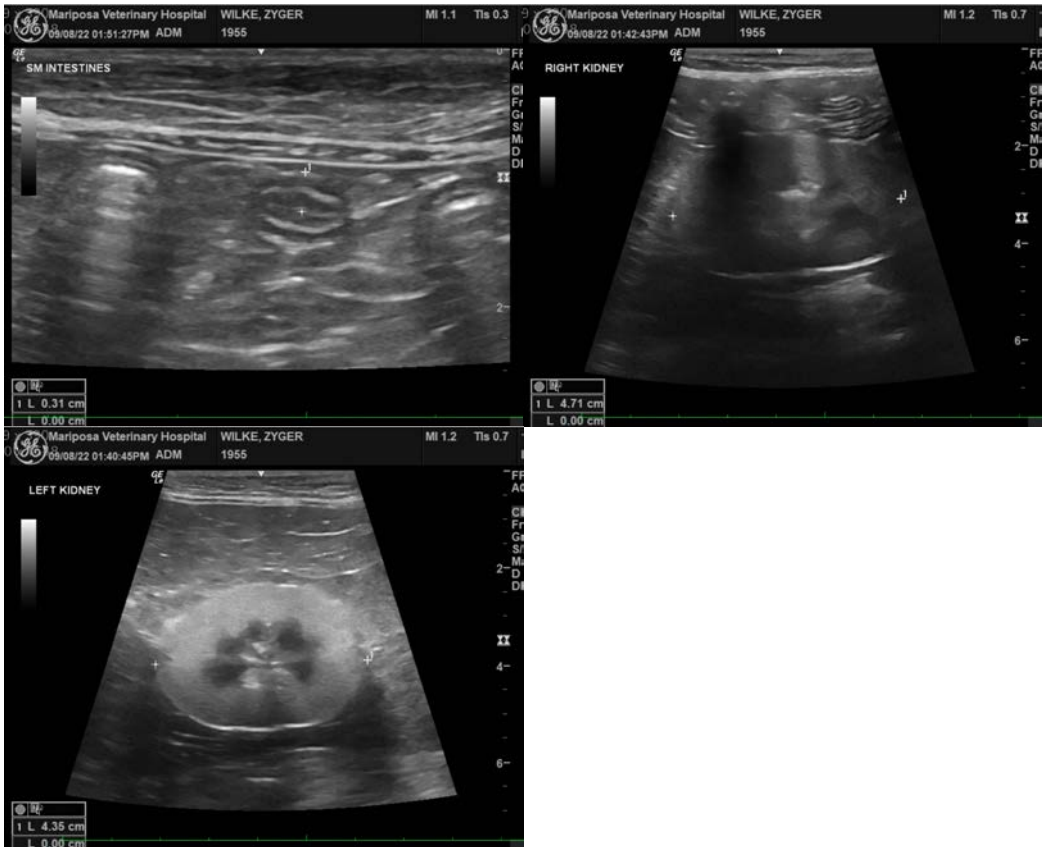
Dr. Elyse Hauer

INVOICE

41140

DATE

9/8/22



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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com