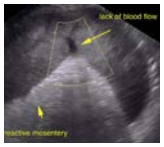
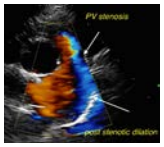
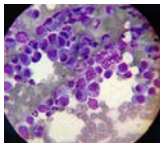
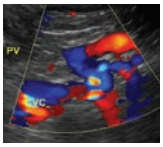
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Gidget Handds to the Rescue

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Spayed Female

AGE

13 Years

WEIGHT

6.6 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Adrianne Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

Dr. Adrianne Waffle

INVOICE

40068

DATE

8/3/22

PRESENTING CLINICAL SIGNS

Was surrendered by owner 2 weeks ago. She has a history of recurrent urinary issues despite multiple AB and C/S testing. She had a dental performed 2 weeks ago. Radiographs at that time showed no stones. She has been diagnosed as possible cushings (lab work due back today). She began coughing last week and was coughing all night. She is on CD food.
Abnormal PE/Chem/CBC/UA Results: Grade IV/VI LAS murmur "pot-bellied" appearance Thoracic rads - cardiomegaly noted - to be submitted for evaluation

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is only mildly distended/empty. The bladder wall is diffusely thick. Mucosa is hyperechoic and irregular with multiple pedunculated masses extending into the lumen of the bladder. The thickening appears most prominent in the area of the dorsal wall and trigone. No cystoliths are observed. The visible pelvic urethra is normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. Mild bilateral pyelectasia is noted. A non-obstructive nephroliths is noted in the left kidney. No infarcts. The left kidney measures 3.4 cm. The right kidney measures 4.4 cm.

Adrenal Glands

The right adrenal gland is normal in size (0.45 cm at the cranial pole and 0.60 cm at the cauda pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is unable to be visualized in these images.

Spleen

The spleen has a 3.0 cm x 4.0 cm heterogeneous, partially cavitated, hypoechoic mass resulting in capsular expansion.

Liver

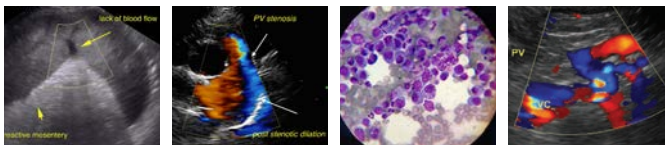
Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. Multiple anechoic cysts are present. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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 intestines are largely normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). However, in the proximal mid abdomen, there is a focal



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

PATIENT

Gidget Handds to the Rescue

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Spayed Female

AGE

13 Years

WEIGHT

6.6 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Adrianne Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

Dr. Adrianne Waffle

INVOICE

40068

DATE

8/3/22

loop of small bowel believed to be the duodenum with a thick wall, but intact layering. The wall measures 0.67 cm thick. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

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.

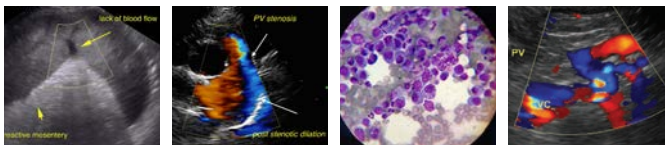
ULTRASONOGRAPHIC FINDINGS

- **Empty urinary bladder with a diffusely thick polypoid wall** – Given the empty nature, full evaluation is not possible, and benign inflammatory disease is considered most likely. However, infiltrative neoplasia cannot be ruled out.
- **Heterogeneous splenic mass –** Concerning for infiltrative neoplasia such as sarcoma or round cell neoplasia. A benign hematoma, extramedullary hematopoiesis, etc. cannot be definitively ruled out without tissue sampling.
- **Focally thick duodenum** – Differentials include benign infiltrative inflammatory disease versus infiltrative neoplasia, which cannot be ruled out but is considered less likely, given the intact layering.
- **Hyperechoic hepatomegaly -** This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.
- **Gallbladder debris -** Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Age related kidney changes with bilateral pyelectasia and a non-obstructive nephrolith in the left kidney.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the reported cough and heart murmur, recommendations include thoracic radiographs, if not already evaluated, as well as an echocardiogram and blood pressure.

To better/further assess the urinary bladder, complete urinary bladder filling with recheck images of a full bladder is recommended. In the meantime, urinalysis and urine culture, if indicated based on



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

PATIENT

Gidget Handds to the Rescue

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Spayed Female

AGE

13 Years

WEIGHT

6.6 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Adrianne Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

Dr. Adrianne Waffle

INVOICE

40068

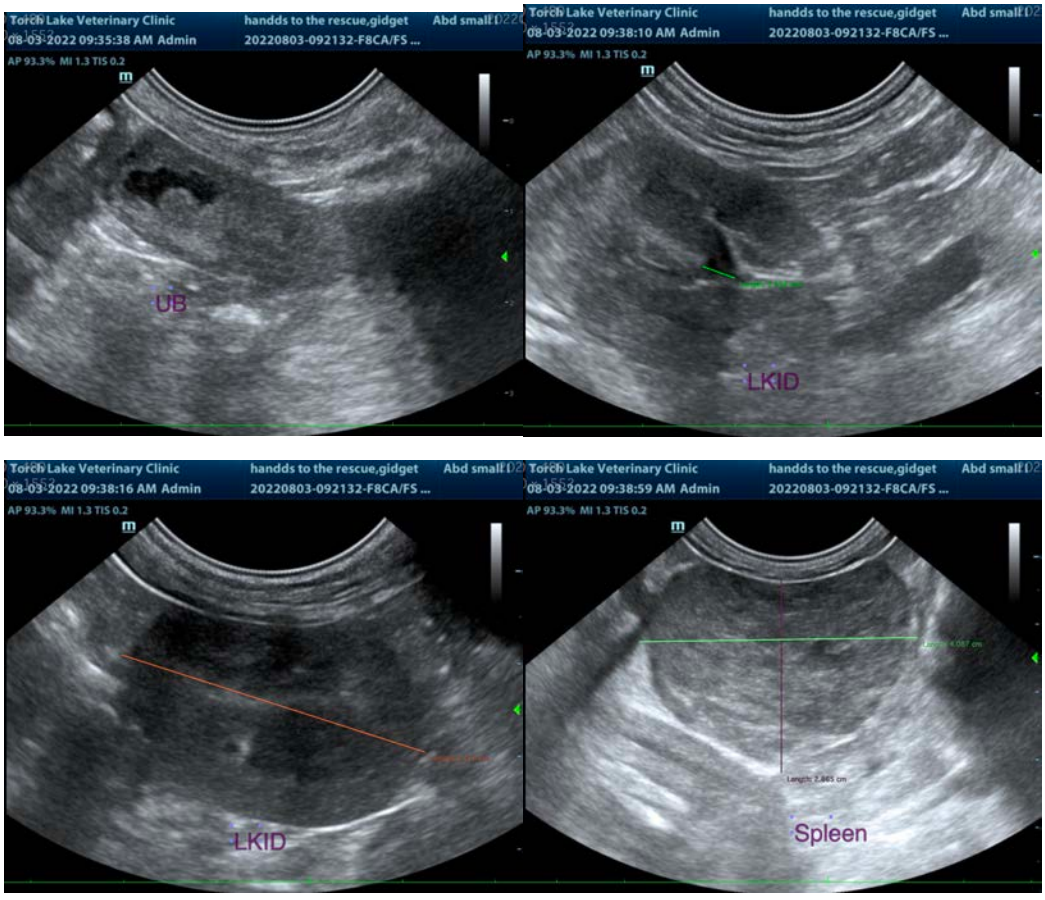
DATE

8/3/22

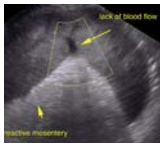
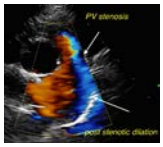
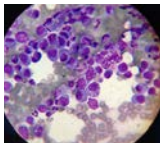
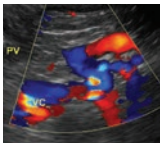
urinalysis results, are recommended. Submission of urine to look for BRAF gene mutation, which is associated with urinary bladder cancer, could be considered. Other diagnostic options include traumatic catheterization, fine needle aspirate (with small risk of tumor seeding/trailing) or cystoscopy for further sampling.

Regarding the splenic mass, a fine needle aspirate could be considered if patient's coagulation status is appropriate. More aggressively, an exploratory laparotomy with planned splenectomy could be pursued. However, given the comorbidities, assessment of the other problems as discussed is recommended prior to pursuing anesthesia, if possible.

If surgery is pursued, a biopsy of the focally thickened bowel loop is also recommended at that time. In the meantime, 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.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Gidget Handds to the Rescue

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Spayed Female

AGE

13 Years

WEIGHT

6.6 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Adrianne Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

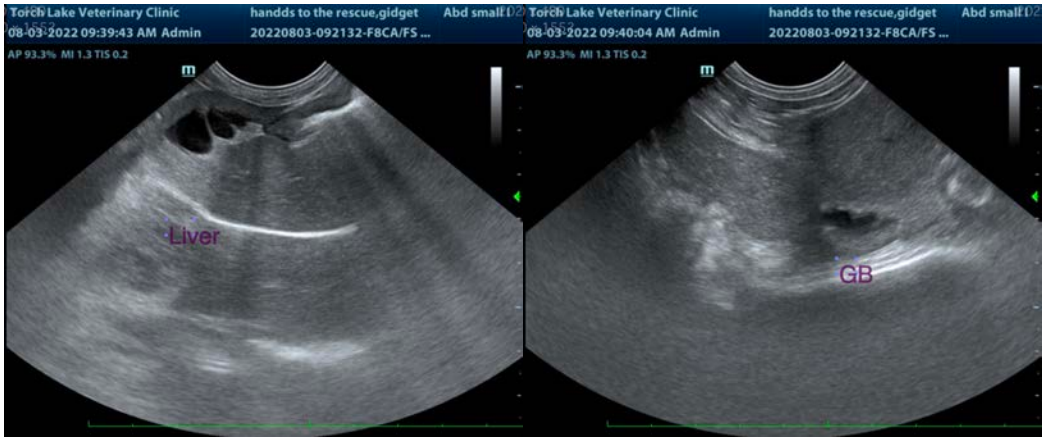
Dr. Adrianne Waffle

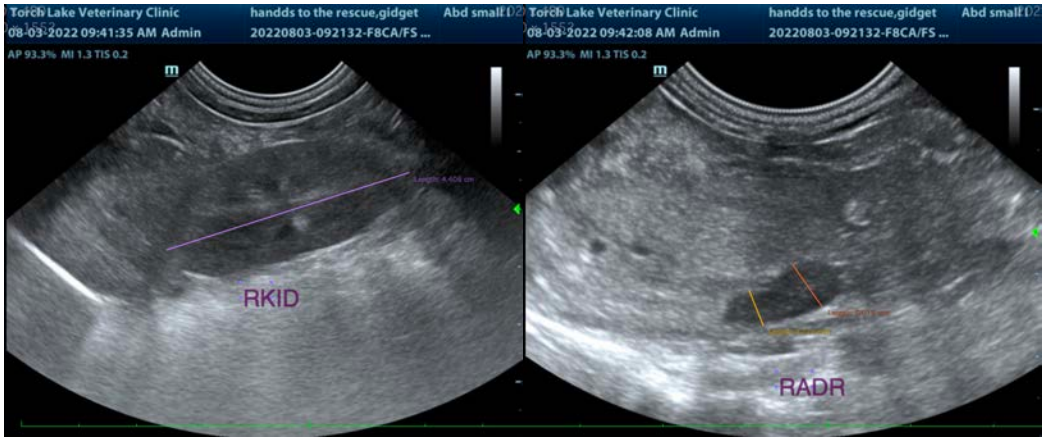
INVOICE

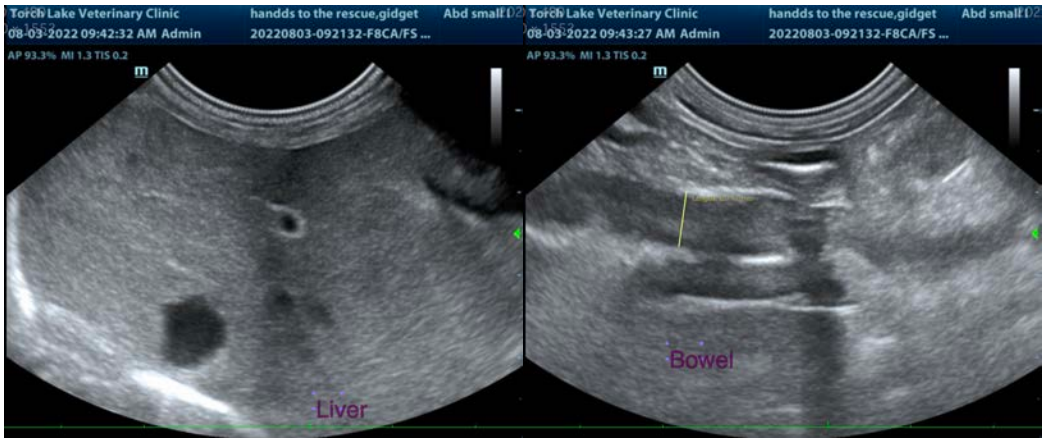
40068

DATE

8/3/22







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