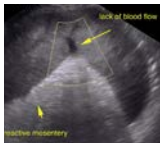
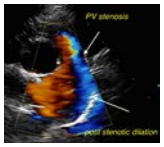
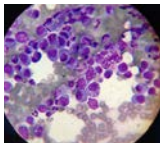
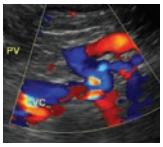
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Princess Holden

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
11 Years

WEIGHT
6.55 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Jack Reese

HOSPITAL NAME
Willow Run VC

REFERRING VET
Dr. Katie Newcamp

INVOICE
40884

DATE
8/31/22

PRESENTING CLINICAL SIGNS

The patient has been losing weight over the past 2-3 months. Stopped eating a week ago and disappeared outside for 3 days. When found to be weak, she was taken to another vet who performed FeLV/FIV testing which was negative and bloodwork that showed elevated liver enzymes, anemia, and a neutrophilia. She stayed overnight on IV fluids and Unasyn, Baytril, and Mirtazapine, sent home on Orbax the next day. A significant flea infestation was treated with revolution. Presented to us on 8/30/22 for another opinion since she was still inappetent and weak.

Abnormal PE/Chem/CBC/UA Results: Severely dehydrated on initial PE with white mucus membranes, icteric skin, and diffuse muscle wasting. Intake bloodwork showed an elevated SDMA 21 (RR 0-14), low BUN 7 (16-36), low ALB 2.2 (2.3-3.9), elevated ALT 269 (12-130), elevated ALKP 491 (14-111), elevated GGT 5 (0-4), tBili 1.5 (0-0.9), elevated lipase 5863 (100-1400), anemia HCT 18.7 (30.3-52.3), hgb 6.3 (9.8-16.2), rbc 4.31 (6.54-12.2), monocytosis 0.72 (0.05-0.67), and suspected band cells. A blood smear showed a neutrophilia with toxic change and a regenerative anemia.

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 right kidney is normal in size (3.66 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

The left kidney is normal in size (3.84 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

Adrenal Glands

The right adrenal gland is normal in size (0.42 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

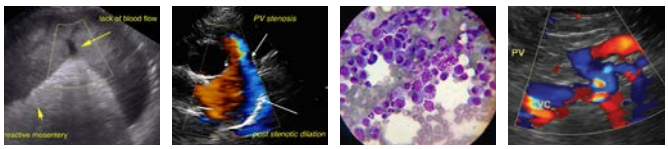
The left adrenal gland is normal in size (0.34 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

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



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

PATIENT

Princess Holden

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

11 Years

WEIGHT

6.55 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

Dr. Katie Newcamp

INVOICE

40884

DATE

8/31/22

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 intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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 observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Pancreatic duct dilation is noted. Enhanced hyperechoic ill-defined surrounding fat is noted.

Free Abdomen

Cranial to the urinary bladder, there is an approximately 3.0 cm x 5.0 cm, primarily hyperechoic, cystic, vascularized structure, believed to be a markedly enlarged cystic lymph node. The area is surrounded by free fluid and fluid that appears to be pocketed within walled off clumped enhanced fat and mesentery.

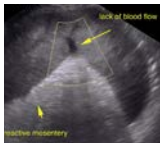
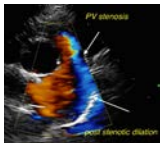
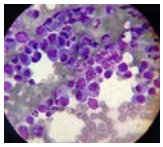
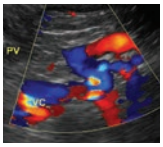
PRIMARY FINDINGS

- **Large, cystic caudal abdominal mass, believed to be a lymph node, surrounded by changes consistent with focal inflammation/focal peritonitis** – Differentials include necrotic or abscessed reactive lymph node versus potentially infiltrative round cell or metastatic neoplasia.
- Acute pancreatitis
- **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.
- **Bilateral medullary rim sign -** This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.

SECONDARY FINDINGS

- Urinary bladder debris

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Princess Holden

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

11 Years

WEIGHT

6.55 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

Dr. Katie Newcamp

INVOICE

40884

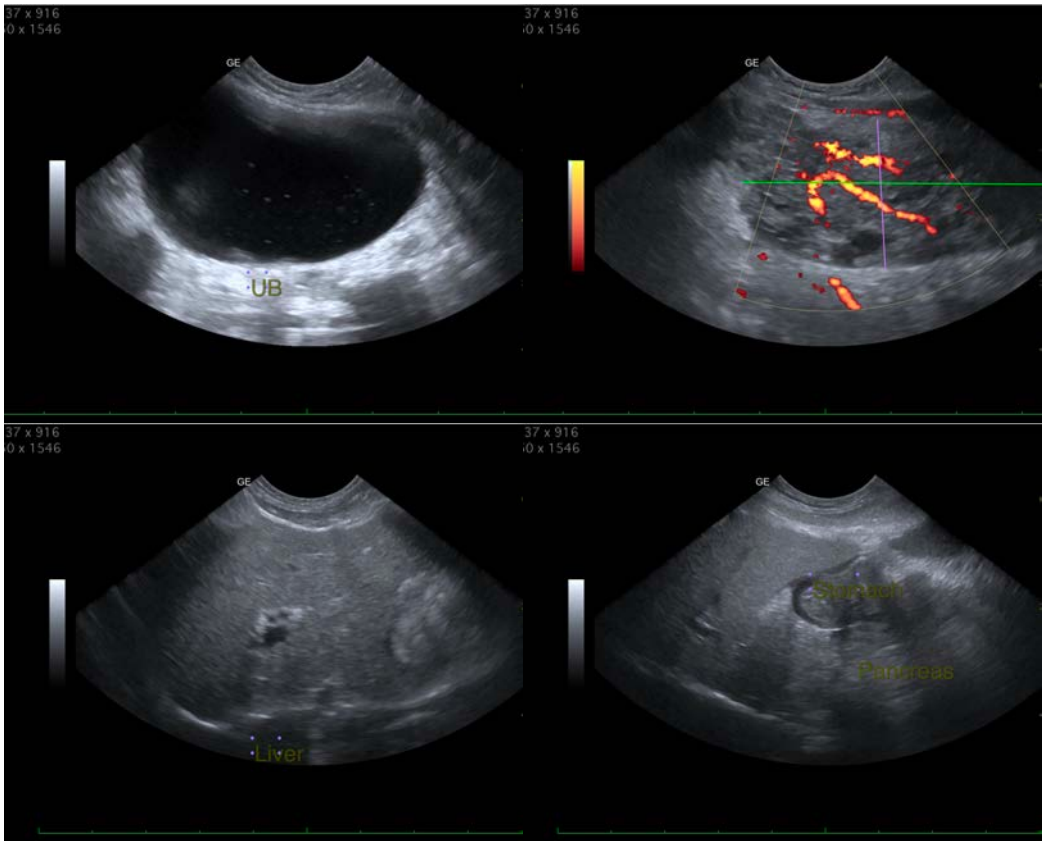
DATE

8/31/22

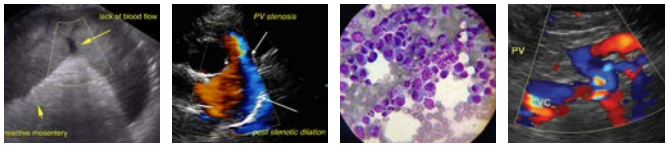
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of the liver in these images is consistent with likely hepatic lipidosis, given this patient's history. A fine needle aspirate would be required to rule out infiltrative disease. However, a higher yield area to sample is the caudal abdominal mass/lymph node. Recommendations are to fine needle aspirate the structure and submit samples for both cytology as well as culture and sensitivity if patient's coagulation status is appropriate.

In the meantime, supportive/symptomatic medical management of acute pancreatitis, potentially hepatic lipidosis, and a suspected necrotic or abscessed lymph node is recommended in the form of antiemetics, gastroprotectants, appetite stimulants or nutritional support in the form of a feeding tube if needed, pain management, broad-spectrum antibiotics, fluid therapy, etc. A blood transfusion may also be necessary in this patient. Given the concurrent anemia, comprehensive infectious disease testing is also recommended.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Princess Holden

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

11 Years

WEIGHT

6.55 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

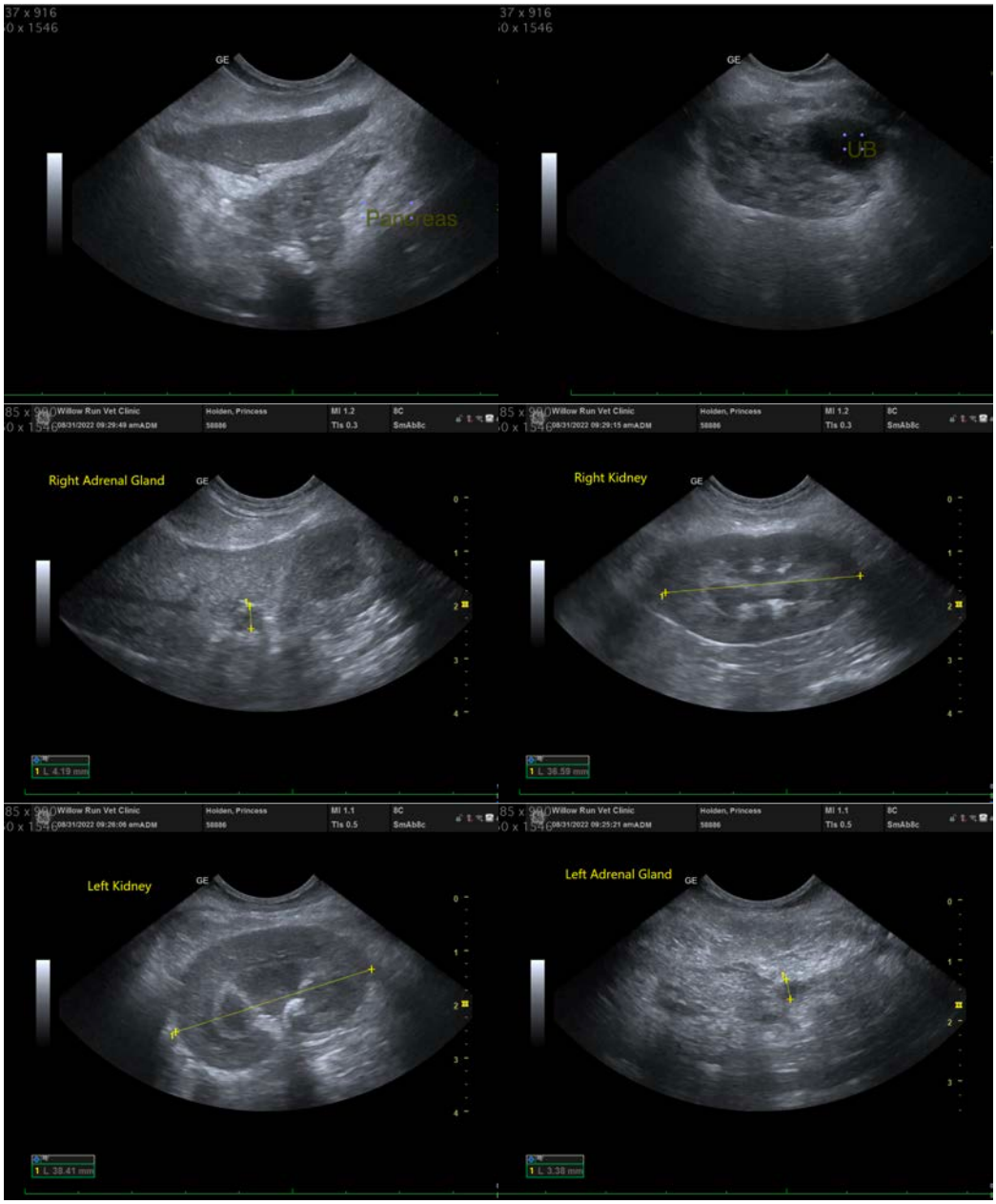
Dr. Katie Newcamp

INVOICE

40884

DATE

8/31/22



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.

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