**PATIENT**

Tigger Stelter 272421

SPECIES

Feline

BREED

Bengal

SEX

Neutered Male

AGE

13 Years

WEIGHT

3.4 kg

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

WVRC - Dr. Witzel

INVOICE

38856

DATE

6/17/22

PRESENTING CLINICAL SIGNS

Marked hyporexia to anorexia, PU/PD for about 4 days, diarrhea with some blood for 3 months, weight loss for 1 year. Palpable abdominal mass on presentation.

Abnormal PE/Chem/CBC/UA Results: PCV/TP (did not obtain enough for a full CBC initially) - 11%, 9.8 Saline agglutination - negative CBC - WBC 4(N), RBC 2.7(L), Hgb 4(L), HCT 11%(L), Plt 11k(L), 1+ toxic change, no plt clumps Retic - 2650(L) Chem18 - Ca 11.1(H), K 3.4(L), Na:K 44(H), TP 9.4(H), Glob 6.3(H), Alb 3.1(N), ALT 419(H), ALP 223(H), T.bili 0.8(H), Chol 57(L)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is not fully distended. The wall is smooth and regular. It appears slightly thickened in certain regions, depending on the angle, likely because the bladder is not well filled. No abnormalities are present with the trigone or proximal urethra. A trivial amount of free floating sediment is present, however, there is no evidence of cystoliths, polyps or a mass.

Kidneys

The **left** kidney measures 3.73 cm (3.80-4.40 cm). The capsule is smooth. The cortex is hyperechoic, i.e., it is hyperechoic to the spleen. A mild to moderate loss of the normal definition of the cortico-medullary junction is present. There are no signs of nephroliths. Pyelectasia is present (0.33 cm (transverse view)). The surrounding mesentery is not hyperechoic.

The **right** kidney measures 3.75 cm (3.80-4.40 cm). The capsule is smooth. The cortex is hyperechoic. A mild to moderate loss of the normal definition of the cortico-medullary junction is present. There are no signs of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

Aortic bifurcation/trifurcation

No abnormalities observed.

Adrenal Glands

The **left** adrenal gland measures 0.32 cm at the cranial pole, 0.30 cm at the caudal pole and 8.1 cm in length. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

The **right** adrenal gland measures 0.36 cm at the cranial pole, 0.34 cm at the caudal pole and 1.34 cm in length. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

Spleen

Splenomegaly (11.4 mm at hilus, but measures up to 18.4 mm (normal = 10 mm)). Subjectively, it has a subtle lacy or miliary echotexture and is diffusely hypoechoic. The capsule has scalloped and rounded borders, which is most likely the mass effect noted on abdominal palpation. The surrounding mesentery is severely hyperechoic. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

Liver

Mild hepatomegaly is suspected. The liver's borders are scalloped. It is diffusely hyperechoic, i.e. it is hyperechoic to the spleen. Hypo and anechoic nodules, 0.40 cm and 0.58 cm in diameter, are noted in the left liver, respectively. No abnormalities are observed with the hepatic vessels.

**PATIENT**

Tigger Stelter 272421

SPECIES

Feline

BREED

Bengal

SEX

Neutered Male

AGE

13 Years

WEIGHT

3.4 kg

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

WVRC - Dr. Witzel

INVOICE

38856

DATE

6/17/22

The gallbladder (GB) is moderately distended with echogenic material noted at the level of the neck and within the proximal cystic duct. The cystic duct is tortuous, but not dilated. The GB wall is thickened (1.3 mm) and moderately hyperechoic. A scant amount of anechoic free fluid is present surrounding it. Dilation of the common bile duct is suspected proximally, but not at the duodenal papilla proper. Multiple intrahepatic ducts are mildly dilated, i.e. tubular structures running parallel to the hepatic vasculature without blood flow on Doppler evaluation.

Gastrointestinal

The gastric wall is within normal limits in thickness and the wall layers are well defined. No obvious abnormalities are observed with its peristalsis. The mesentery surrounding the stomach is moderately hyperechoic.

The small intestinal wall thickness, including the duodenum, is within normal limits and the definition of the wall layers is preserved. No abnormalities are observed with the ileo-cecal-colic junction.

Abnormally dilated loops of bowel are not observed.

The colonic wall is not thickened and mural detail is considered normal.

Pancreas

Both the **right** and **left limbs** are enlarged and severely hypoechoic, with irregular contours. The surrounding mesentery is markedly hyperechoic. The mesentery is more severely affected on the left. Abnormalities are consistent with active pancreatitis.

Other**Lymph nodes**

Ileo-cecal-colic lymph node: A mildly enlarged, hypoechoic ileo-cecal-colic lymph node is noted (0.55 cm in diameter x 0.61 cm in diameter). The surrounding mesentery is hyperechoic.

A mesenteric lymph node is within normal limits in size and length, but is mildly hypoechoic. The surrounding mesentery is hyperechoic.

Abdominal effusion

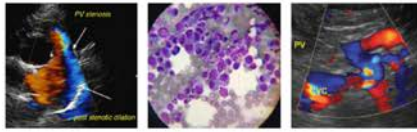
A small amount of anechoic effusion is visualized in the region of the urinary bladder.

ULTRASONOGRAPHIC FINDINGS

- **Spleen:** Splenomegaly with concomitant parenchymal changes are highly suggestive of infiltrative disease, such as lymphoma or other round cell tumour. However, extramedullary hematopoiesis may be contributing to both the size and appearance of the spleen due to Tigger's severe anemia. Reactive hypersplenism and splenitis remain potential differential diagnoses. An ultrasound-guided fine needle aspirate would normally be recommended to obtain a definitive diagnosis, however, this is not possible due to his severe thrombocytopenia and high risk of hemorrhage.
- **Liver:** Cholestasis, cholangitis/cholangiohepatitis and secondary hepatic lipidosis are suspected. Suppurative cholecystitis is also likely based on the appearance of the gallbladder. Neoplasia, such as lymphoma, or other round cell tumour, cannot be excluded.

IMAGING PERFORMED BY

SVS Mobile Imaging CT 262-366-5970
fredgromalak@gmail.com

**PATIENT**

Tigger Stelter 272421

SPECIES

Feline

BREED

Bengal

SEX

Neutered Male

AGE

13 Years

WEIGHT

3.4 kg

- **Gallbladder:** Cholecystitis is suspected. A suppurative form is likely. Signs of increased intrahepatic biliary pressure are present, i.e. intrahepatic ducts are dilated.
- **Pancreas:** Signs of active pancreatitis are evident.
- **Lymph nodes:** Although the lymphadenomegaly is mild and is likely due to reactive hyperplasia, infiltration with neoplastic cells must also be considered.
- **Mesentery:** Diffusely hyperechoic mesentery, which is consistent with a diffuse inflammatory process, including pancreatitis, cholangitis/cholangiohepatitis and cholecystitis, as well as the mild amount of abdominal effusion.
- **Ascites:** Differential diagnoses include extravasation/increased permeability, vasculitis, etc.
- **Kidneys:** Age-related degenerative changes are noted, however, pyelectasia of the left kidney may occur with polydipsia and polyuria, as well as pyelonephritis. Pyelonephritis cannot be excluded despite the absence of classical sonographic signs.
- **Urinary bladder:** The *free floating sediment* within the lumen of the urinary bladder is most likely composed of mucus, crystalline material and exfoliated cells. The debris is likely clinically insignificant, however, the mildly thickened bladder wall may not be due to underfilling, i.e. it may be clinically significant. Therefore, findings should be correlated with clinical signs and a urinalysis.
- **Gastrointestinal tract:** Note, the absence of sonographic abnormalities does not exclude pathology, for example, inflammatory bowel disease or infiltrative disease.

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUS

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

WVRC - Dr. Witzel

INVOICE

38856

DATE

6/17/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The following are suggested/recommended

Anemia and thrombocytopenia may be due to lymphoma or histiocytic sarcoma. Although agglutination is absent, PCR tests for *Mycoplasma* spp. may be considered.

Intravenous fluids
Analgesia buprenorphine 0.005-0.01 mg/kg and consider CRIs of lidocaine and ketamine

vitamin K (0.5 mg/kg SQ q8-12h); cholestasis likely

Urinalysis (not by cystocentesis due to thrombocytopenia) and urine culture

Thoracic radiographs (three-views) to exclude metastases.

Ultrasound-guided fine needle aspirates of the spleen and liver would normally be recommended to obtain a definitive diagnosis, however, this is not possible due to his severe thrombocytopenia and high risk of hemorrhage.

Transfusion fresh whole blood, blood type Tigger and cross match the blood prior to administration.

Once stabilized, further diagnostics (FNAs) may be performed pending coagulation profile results.

If further diagnostics are not pursued, an initial dose of dexamethasone SQ or IV may be administered, followed by oral dexamethasone or prednisolone.

IMAGING PERFORMED BY

SVS Mobile Imaging CT 262-366-5970
fredgromalak@gmail.com



PATIENT

Tigger Stelter 272421

Dexamethasone 0.10 mg/kg/day for 3 days, then 0.03-0.05 mg/kg PO once a day for 14 days, then tapered to minimum effective dose.

If prednisolone is used, 1-2 mg/kg/day once a day for 14 days, then tapered to minimum effective dose.

SPECIES

Feline

If no improvement with steroids, differential diagnoses include cholecystitis, cholangitis/cholangiohepatitis, and secondary ascending bacterial infections. Although indiscriminate use of antibiotics is not recommended, once could consider broad-spectrum antibiotic.

BREED

Bengal

Although not ideal, cefovecin (Convenia) may be tried, i.e., avoids GI tract. Discussion with the client that this is not necessarily an ideal drug. If improvement observed, at least 2 additional doses 10-12 days apart recommended.

SEX

Neutered Male

AGE

13 Years

WEIGHT

3.4 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

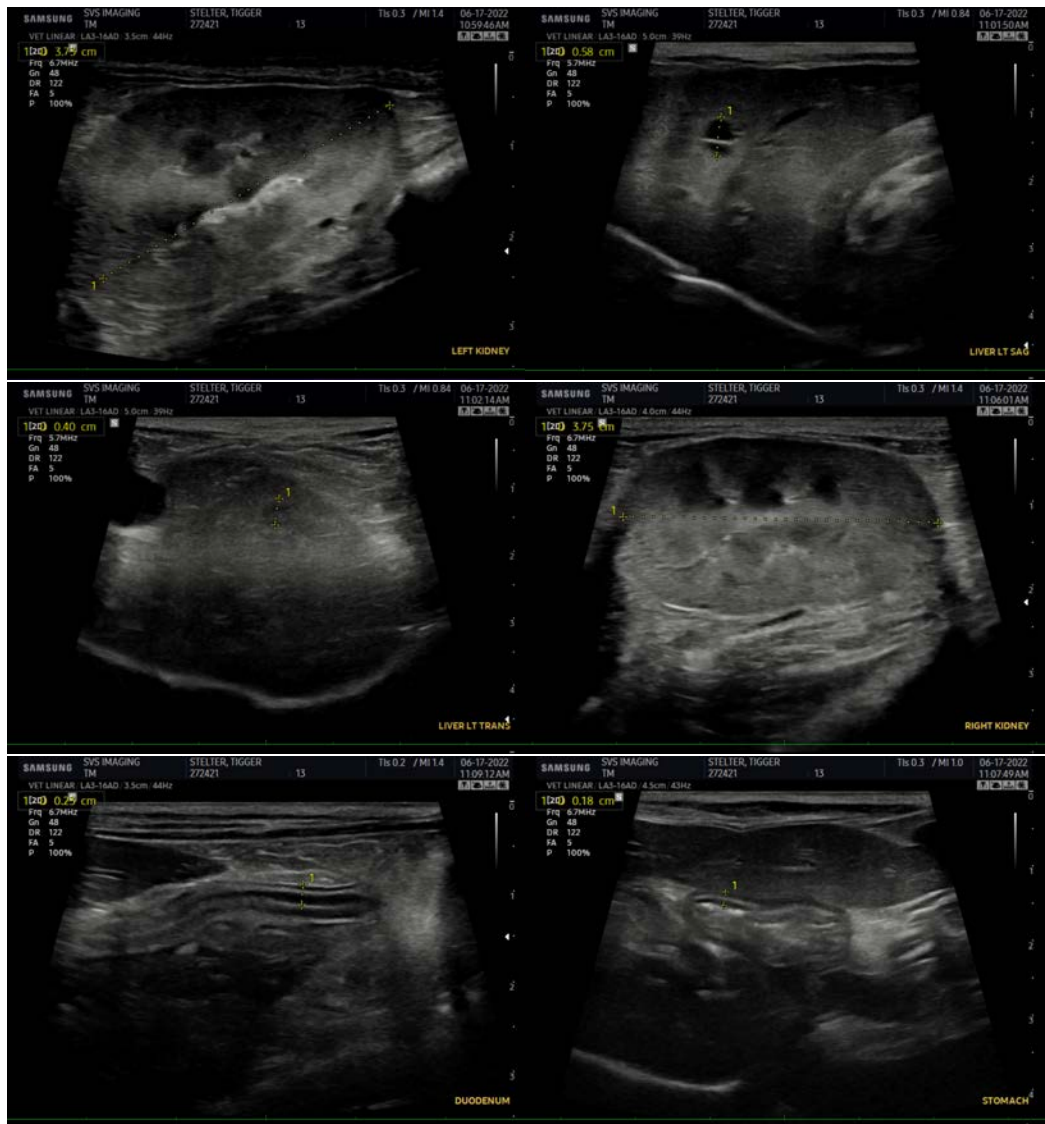
WVRC - Dr. Witzel

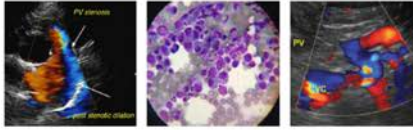
INVOICE

38856

DATE

6/17/22





PATIENT

Tigger Stelter 272421

SPECIES

Feline

BREED

Bengal

SEX

Neutered Male

AGE

13 Years

WEIGHT

3.4 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

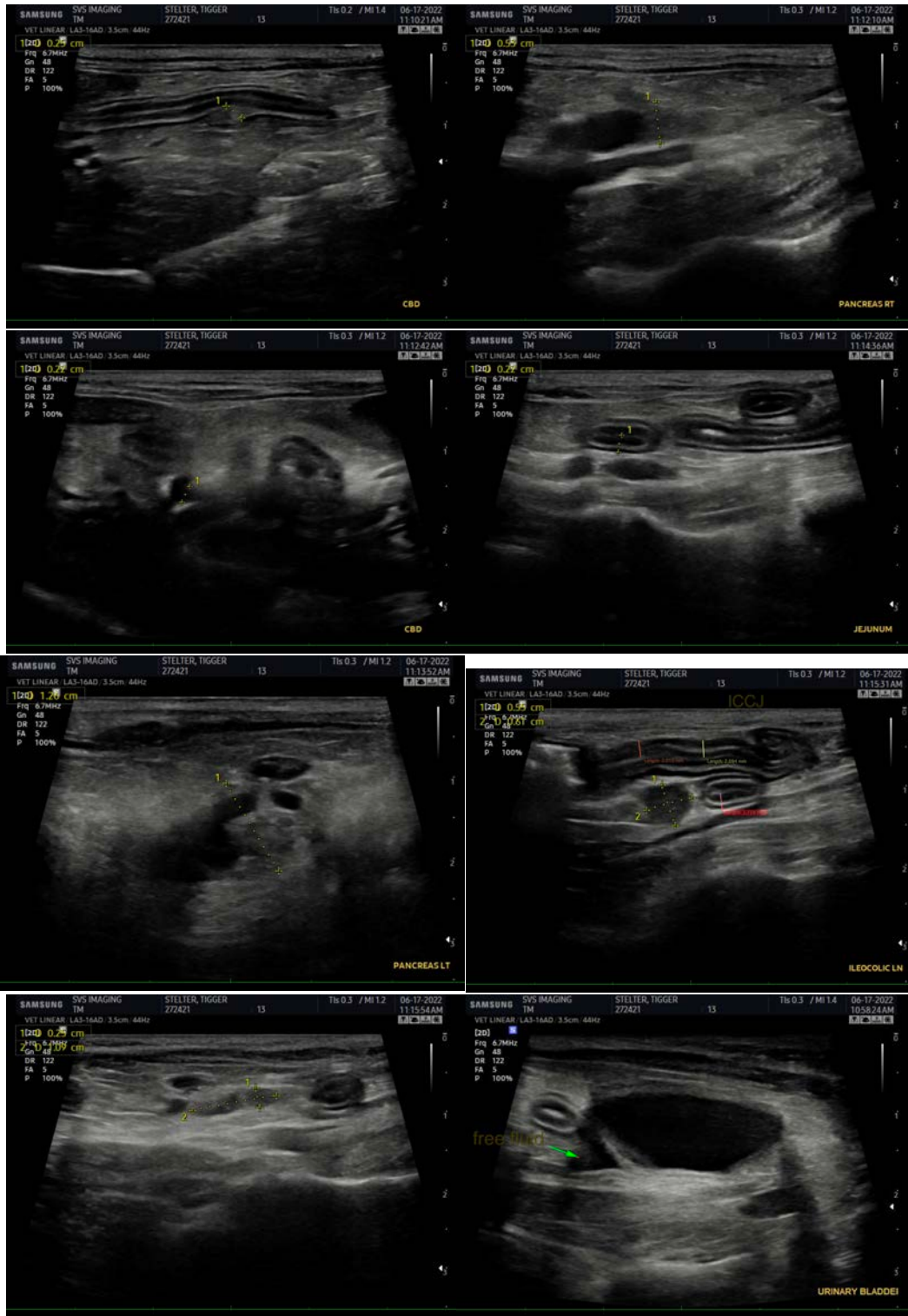
WVRC - Dr. Witzel

INVOICE

38856

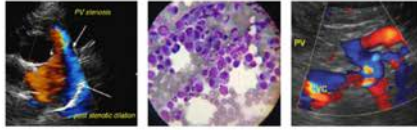
DATE

6/17/22



IMAGING PERFORMED BY

SVS Mobile Imaging CT 262-366-5970
fredgromalak@gmail.com



PATIENT

Tigger Stelter 272421

SPECIES

Feline

BREED

Bengal

SEX

Neutered Male

AGE

13 Years

WEIGHT

3.4 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

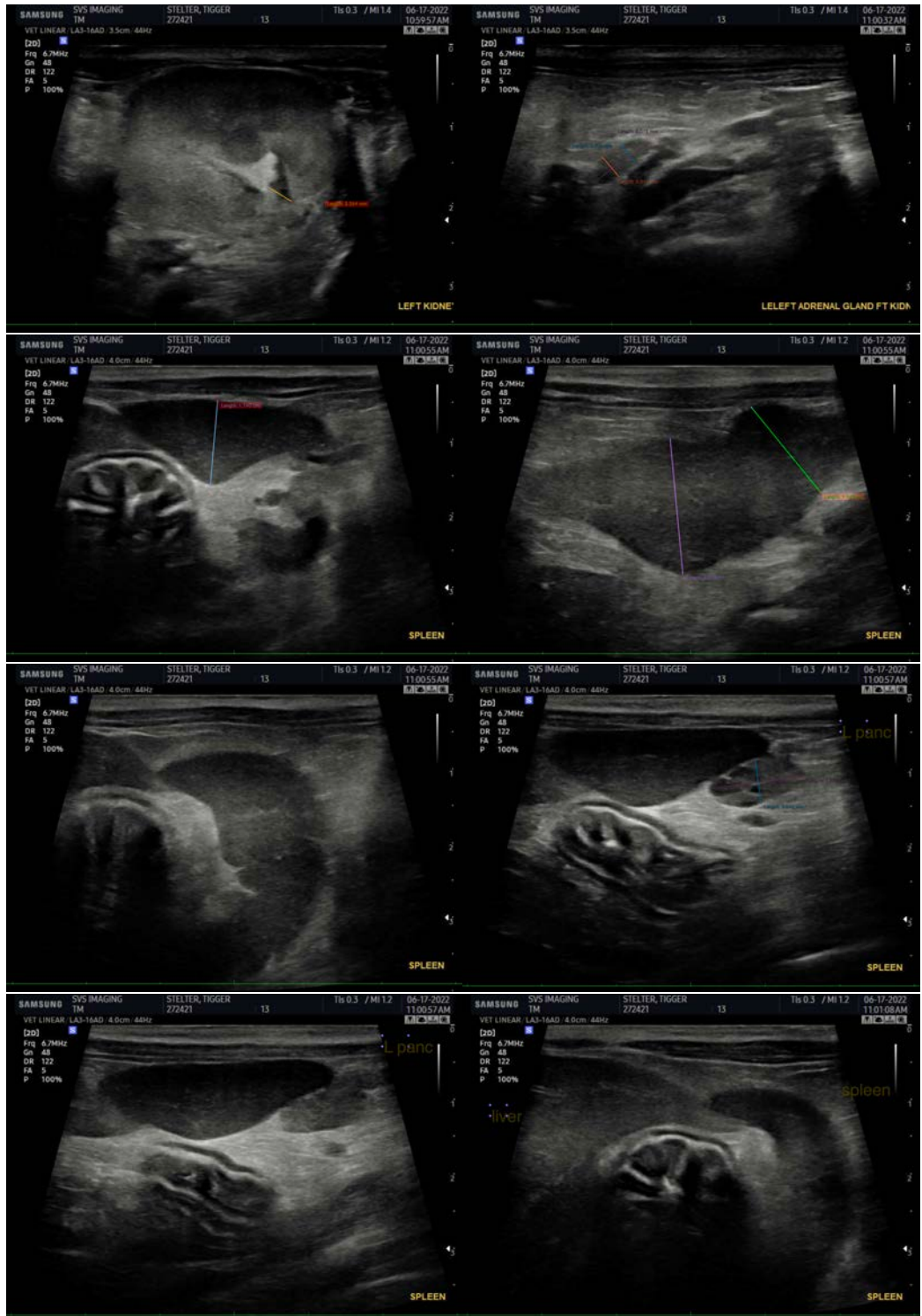
WVRC - Dr. Witzel

INVOICE

38856

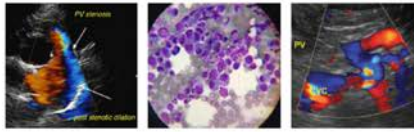
DATE

6/17/22



IMAGING PERFORMED BY

SVS Mobile Imaging CT 262-366-5970
fredgromalak@gmail.com



PATIENT

Tigger Stelter 272421

SPECIES

Feline

BREED

Bengal

SEX

Neutered Male

AGE

13 Years

WEIGHT

3.4 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

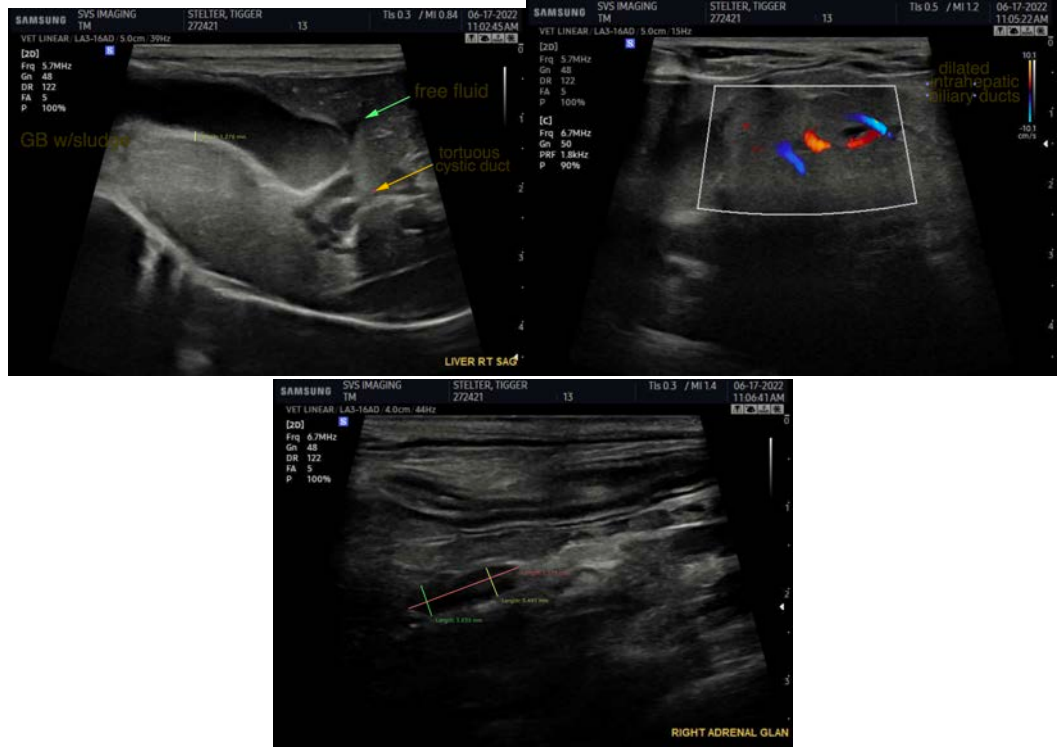
WVRC - Dr. Witzel

INVOICE

38856

DATE

6/17/22



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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

Lisa.Carioto@sonopath.com