

**PATIENT**

Reccie Luken 271659

SPECIES

Canine

BREED

Mixed Breed

SEX

Spayed Female

AGE

8 Years 7 Months

WEIGHT

32.7 kg

INTERPRETED BYLisa Carioto, DVM,
DVSc, Diplomate
ACVIM**IMAGING PERFORMED BY**

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Dr. Wirth, WVRC

INVOICE

16180

DATE

6/17/22

PRESENTING CLINICAL SIGNS

History: Patient has a history of slowly elevating ALT, nocturia +/- polydipsia. No other clinical signs.

Abnormal PE/Chem/CBC/UA Results: 5/25 ALT 377, ALP 116

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is well distended with anechoic contents. The wall is mildly to moderately thickened (2.01 mm) at the apex despite being fully distended and is mildly irregular. No abnormalities are noted with the trigone or proximal urethra, and there is no evidence of sediment, cystoliths, polyps or a mass.

Kidneys

The **left** kidney measures 6.17 cm. The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. Mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. An accumulation of intrapelvic fat is noted. The surrounding mesentery is not hyperechoic.

The **right** kidney measures 5.70 cm. Findings are similar to the left kidney.

Aortic bifurcation/trifurcation

No abnormalities observed.

Adrenal Glands

The **left** adrenal gland measures 1.13 cm at the cranial pole, 0.67 cm at the caudal pole. The cranial pole is "nodular", however, a discrete, well-circumscribed nodule is not observed, and there is no difference in the gland's overall echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

The **right** adrenal gland measures 0.77 cm at the cranial pole, 0.70 cm at the caudal pole. 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

The spleen is within normal limits in size, architecture, echotexture, and echogenicity. The capsule is smooth. Perivascular cuffing, consistent with myelolipomas, is visualized. These are considered clinically insignificant. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

Liver

There are no obvious signs of hepatomegaly. The liver's borders are smooth, but mildly rounded. It is diffusely heterogenous, with multiple hypoechoic nodules of variable size dispersed haphazardly throughout the parenchyma. An iso to mildly hypoechoic mass, 2.92 cm in diameter x 3.70 cm in length, is noted caudoventrally in the left side of the liver. No obvious abnormalities are noted with the hepatic vessels.

The gallbladder (GB) wall is within normal limits in thickness and echogenicity. A small amount of echogenic material is present within the GB. The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction.

**PATIENT**

Reccie Luken 271659

SPECIES

Canine

BREED

Mixed Breed

SEX

Spayed Female

AGE

8 Years 7 Months

WEIGHT

32.7 kg

INTERPRETED BYLisa Carioto, DVM,
DVSc, Diplomate
ACVIM**IMAGING PERFORMED BY**

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Dr. Wirth, WVRC

INVOICE

16180

DATE

6/17/22

Gastrointestinal

A large amount of gas is present within the lumen of the stomach. The gastric wall is within normal limits in thickness and the wall layers are well defined. No obvious abnormalities are observed with its peristalsis.

Duodenum: A moderate amount of fluid and gas are present in the lumen. Wall thickness is within normal limits and no abnormalities are noted with wall layering.

Jejunum: Wall thickness is within normal limits and the definition of the wall layers is preserved.

Abnormally dilated loops of bowel are not observed.

The colonic wall is thickened, 0.27 cm, however, mural detail is considered within normal limits. Gas is present within the colon, as are formed stools.

Pancreas

The pancreas has a mildly coarse echotexture, which is considered secondary to age related changes, however, previous episodes of pancreatitis cannot be excluded. There are no signs of active pancreatitis or neoplasia.

Other**Lymph nodes**

No abnormalities are observed

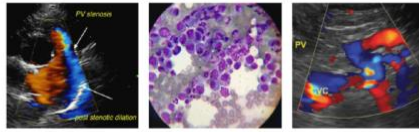
Abdominal effusion is not visualized.

ULTRASONOGRAPHIC FINDINGS

- Adrenal glands:** Bilateral adrenomegaly may occur due to adrenal hyperplasia secondary to chronic illness, which is a form of stress. Pituitary dependent hyperadrenocorticism remains a differential diagnosis given the possible polydipsia and nocturia. The “nodular” cranial pole of the **left** gland may be due to a benign adenoma, which may or may not be functional. A pheochromocytoma or adenocarcinoma is considered less likely, however, a sonographic re-evaluation of the adrenal glands may be considered depending on the diagnostic work-up (see below). The phrenico-abdominal veins and surrounding vasculature and mesentery are unremarkable.
- Liver:** Age-related nodular hyperplasia is suspected as the cause of the multiple hypoechoic nodules throughout the liver. The iso to mildly hypoechoic mass may be due to nodular regeneration. Obvious target lesions are not visualized, which decreases the likelihood of neoplasia, however, a biopsy would be required to confirm that the abnormalities observed are all age-related or secondary to a previous insult.
- Gallbladder:** A small amount of gallbladder sludge is noted. Its presence is often clinically insignificant, however, gastroesophageal reflux disease (GERD), can occur in some patients. Obtaining a history regarding signs of GERD from the client is suggested. Treatment with an anti-acid or a proton pump inhibitor may be required. The small amount does not warrant the administration of ursodeoxycholic acid.

IMAGING PERFORMED BY

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



PATIENT

Reecie Luken 271659

SPECIES

Canine

BREED

Mixed Breed

SEX

Spayed Female

AGE

8 Years 7 Months

WEIGHT

32.7 kg

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Dr. Wirth, WVRC

INVOICE

16180

DATE

6/17/22

- **Gastrointestinal:** The thickening of the colon may be due to a recent bout of colitis or constipation, that may not have been mentioned in the history. There are no obvious signs of neoplasia.
- **Pancreas:** Age-related changes are observed. Signs of active pancreatitis or neoplasia are not appreciated.
- **Kidneys:** Very mild age-related degenerative changes are observed. There are no obvious signs of pyelonephritis, however, their absence does not rule out the presence of the disease.
- **Urinary bladder:** A urinary tract infection cannot be excluded based on the mildly thickened and irregular mucosa at the apex.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Suggestions/recommendations include

Evaluation of the history for signs of soft stools, constipation or diarrhea with the client.

Obtaining a history regarding signs of GERD from the client is suggested. Treatment with an anti-acid or a proton pump inhibitor may be required. The small amount does not warrant the administration of ursodeoxycholic acid.

Exclude medications and natural supplements as causes of hepatocellular damage

A rectal examination (palpation)

A urine culture and sensitivity

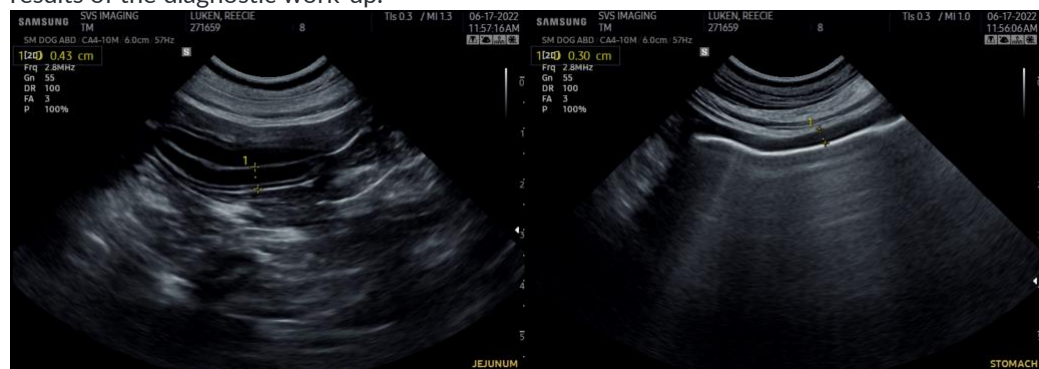
If negative, a urine protein: creatinine ratio to exclude proteinuria

An arterial blood pressure to rule out hypertension

A fine needle aspirate of the liver may be considered, depending on the severity of the elevated ALT enzyme activity.

A low-dose dexamethasone suppression test (LDDST) is preferable in Reecie's case as there is a greater risk of obtaining a false positive with an ACTH compared to a LDDST.

A sonographic re-evaluation of the liver and adrenal glands may be considered depending on the results of the diagnostic work-up.



IMAGING PERFORMED BY

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



PATIENT

Reccie Luken 271659

SPECIES

Canine

BREED

Mixed Breed

SEX

Spayed Female

AGE

8 Years 7 Months

WEIGHT

32.7 kg

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

**IMAGING
PERFORMED BY**

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

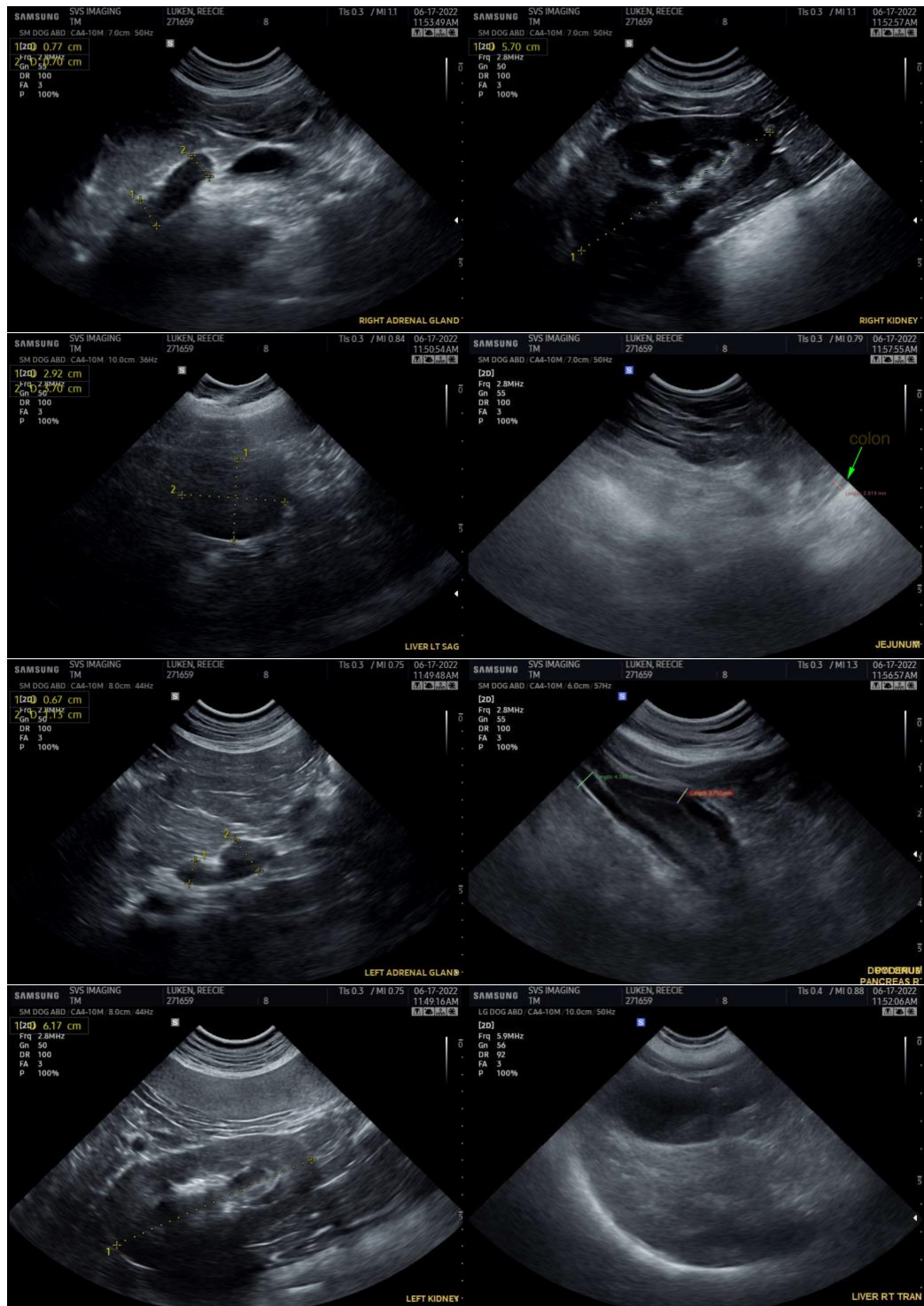
Dr. Wirth, WVRC

INVOICE

16180

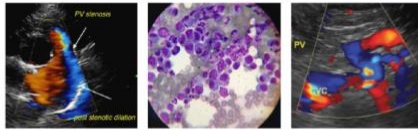
DATE

6/17/22



IMAGING PERFORMED BY

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



SonoPath
Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Reccie Luken 271659

SPECIES

Canine

BREED

Mixed Breed

SEX

Spayed Female

AGE

8 Years 7 Months

WEIGHT

32.7 kg

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

**IMAGING
PERFORMED BY**

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

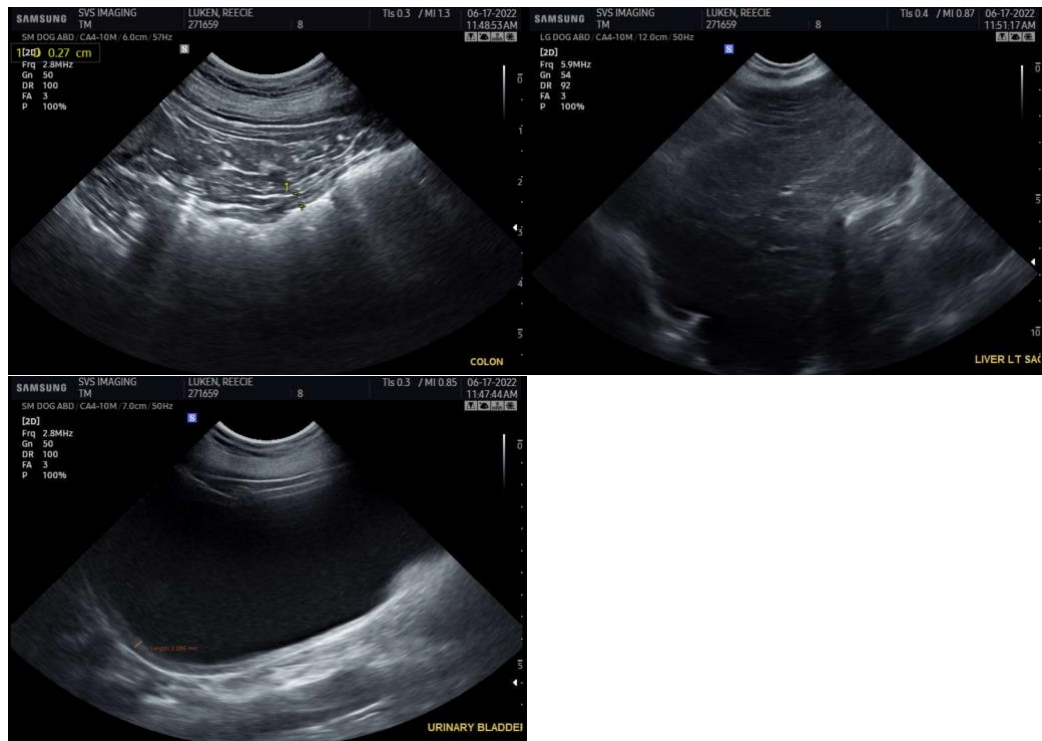
Dr. Wirth, WVRC

INVOICE

16180

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