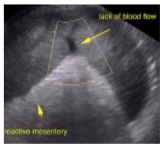
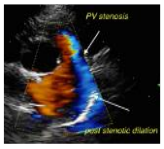
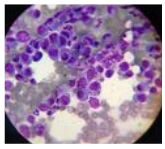
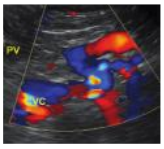
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Rupert Troyer

SPECIES

Canine

BREED

West Highland White Terrier

SEX

MN

AGE

13 years

WEIGHT

8 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Sarah Barthelemy

HOSPITAL NAME

Signal Hill AC

REFERRING VET

Dr. Leboldus

INVOICE

15871

DATE

1/18/23

PRESENTING CLINICAL SIGNS

Hx of diabetes mellitus which has been fairly well controlled. Has become hyporexic.
Abnormal PE/Chem/CBC/UA Results: Elevated amylase and lipase, mild ALP elevation at around 350.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no sediment or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation or pyelectasia was present. Intermittent discrete cortical cysts were present in both kidneys. The left kidney measured 4.1 cm in length. The right kidney measured 4.5 cm in length.

Adrenal Glands

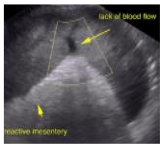
Both adrenal glands exhibited variable enlargement and mild asymmetrical yet intact capsule contour. A discrete caudal left adrenal nodule with secondary mild symmetrical caudal left adrenomegaly was present. The caudal left adrenal gland measured 0.95 cm x 0.87 cm. The overall left adrenal gland measured 0.36 cm width at the cranial pole and 0.87 cm width at the caudal pole. Mildly expansive to irregular nonhomogeneous nonmineralized nodule was noted in the cranial right adrenal gland with mild associated capsule distortion measuring 1.6 cm x 1.3 cm. The overall right adrenal gland measured 1.35 cm width at the cranial pole and 0.5 cm width at the caudal pole. No overt evidence of vascular invasion.

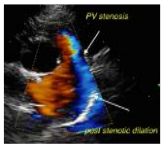
Spleen

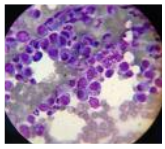
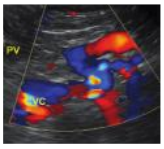
The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/ Gallbladder

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of





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

PATIENT

Rupert Troyer

SPECIES

Canine

BREED

West Highland White Terrier

SEX

MN

AGE

13 years

WEIGHT

8 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Sarah Barthelemy

HOSPITAL NAME

Signal Hill AC

REFERRING VET

Dr. Leboldus

INVOICE

15871

DATE

1/18/23

congestion. The gallbladder was non-distended in size containing primarily anechoic content with mild, echogenic, nonorganized gallbladder debris. No evidence of gallbladder or peripheral gallbladder inflammation was noted. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild nonshadowing ingesta/chyme without signs of obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Minor segmental ingesta / chyme was noted.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

Variably prominent mixed echogenic left and right pancreatic limbs with intermittent left and right limb cysts were present. An example of a left pancreatic limb cyst measured 0.87 cm in diameter. An example of a pancreas base to right pancreatic limb cyst measured 1.2 cm in diameter.

Free Abdomen

No overt lymphadenopathy, omental masses or peritoneal effusion was present.

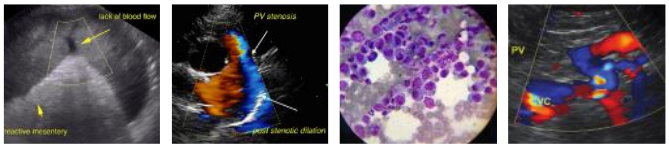
ULTRASONOGRAPHIC FINDINGS

- Mild chronic renal changes
- Variable bilateral adrenomegaly exhibiting discrete to well-demarcated variably expansive adrenal nodules
- Variably prominent mixed echogenic pancreas with left and right limb parenchymal cysts - suggestive of chronic pancreatitis
- Benign hepatopathy - metabolic / reactive / vacuolar (diabetic) hepatopathy with nonobstructive cholestasis likely, no evidence of hepatic neoplastic criteria
- Mild gallbladder debris (non-mucocele)
- Overtly normal gastrointestinal tract with mild gastric ingesta / chyme

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic pancreatitis would be suspected if evidence of cranial abdominal or subxiphoid discomfort on palpation. Correlation with a Spec cPL or ideally a GI panel to include PLI/TLI/Cobalamin/Folate to assess for or rule out concurrent occult intestinal disease.

The bilateral variable adrenomegaly with nodular changes is nonspecific and may indicate functional vs. nonfunctional adenomatous change, or benign hyperplasia, although the possibility of emerging neoplasia specifically in the right adrenal gland i.e., pheochromocytoma, adenocarcinoma, or other, cannot be excluded. Screening blood pressure and full adrenal workup, if evidence of diabetic dysregulation or clinical signs suggestive of Cushing's Syndrome is recommended. Sonographic



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

PATIENT

Rupert Troyer

SPECIES

Canine

BREED

West Highland White Terrier

SEX

MN

AGE

13 years

WEIGHT

8 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Sarah Barthelemy

HOSPITAL NAME

Signal Hill AC

REFERRING VET

Dr. Leboldus

INVOICE

15871

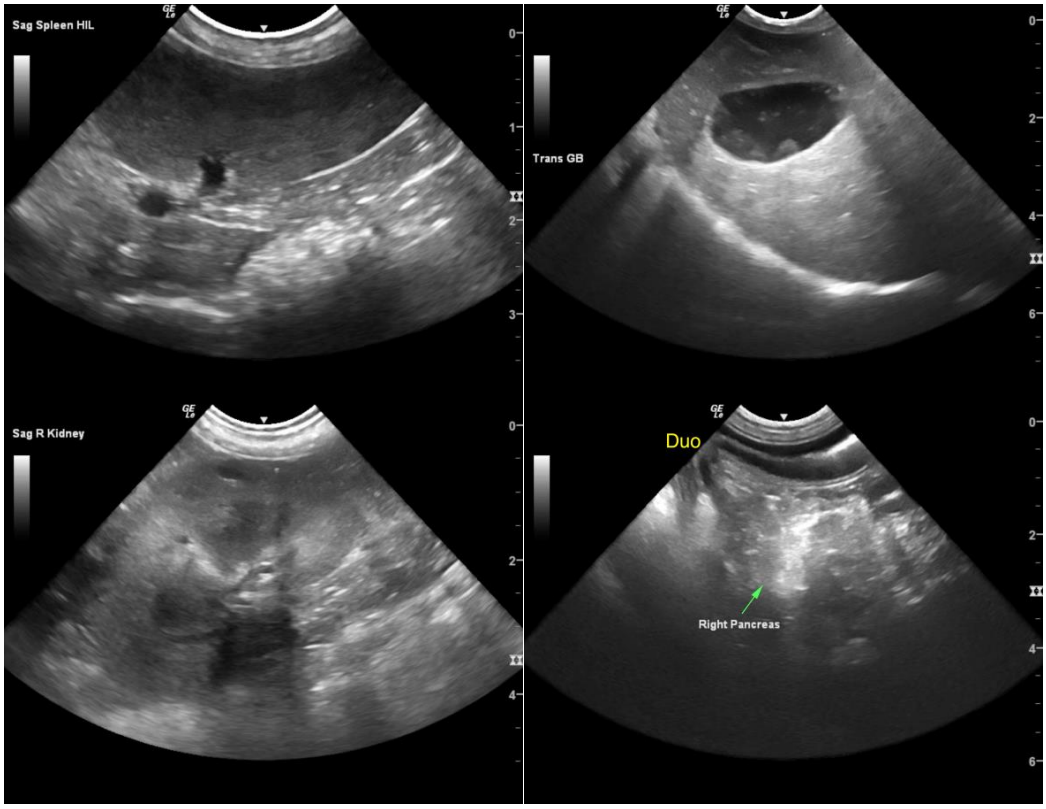
DATE

1/18/23

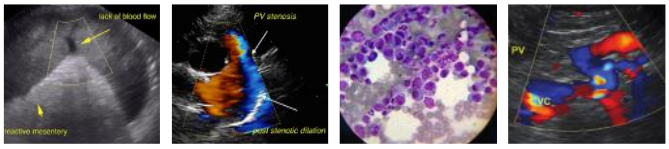
monitoring of the bilateral adrenal glands with an initial recheck in 4 weeks for a reassessment of progressive nodular changes is warranted. Empirically, as-needed gastrointestinal support and therapy for suspected chronic pancreatitis would be reasonable.

For an additional charge, internal medicine consult can be utilized through Sonopath.com. You can select the internal medicine drop down at http://spa.sonopath.com/.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Rupert Troyer

SPECIES

Canine

BREED

West Highland White Terrier

SEX

MN

AGE

13 years

WEIGHT

8 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Sarah Barthelemy

HOSPITAL NAME

Signal Hill AC

REFERRING VET

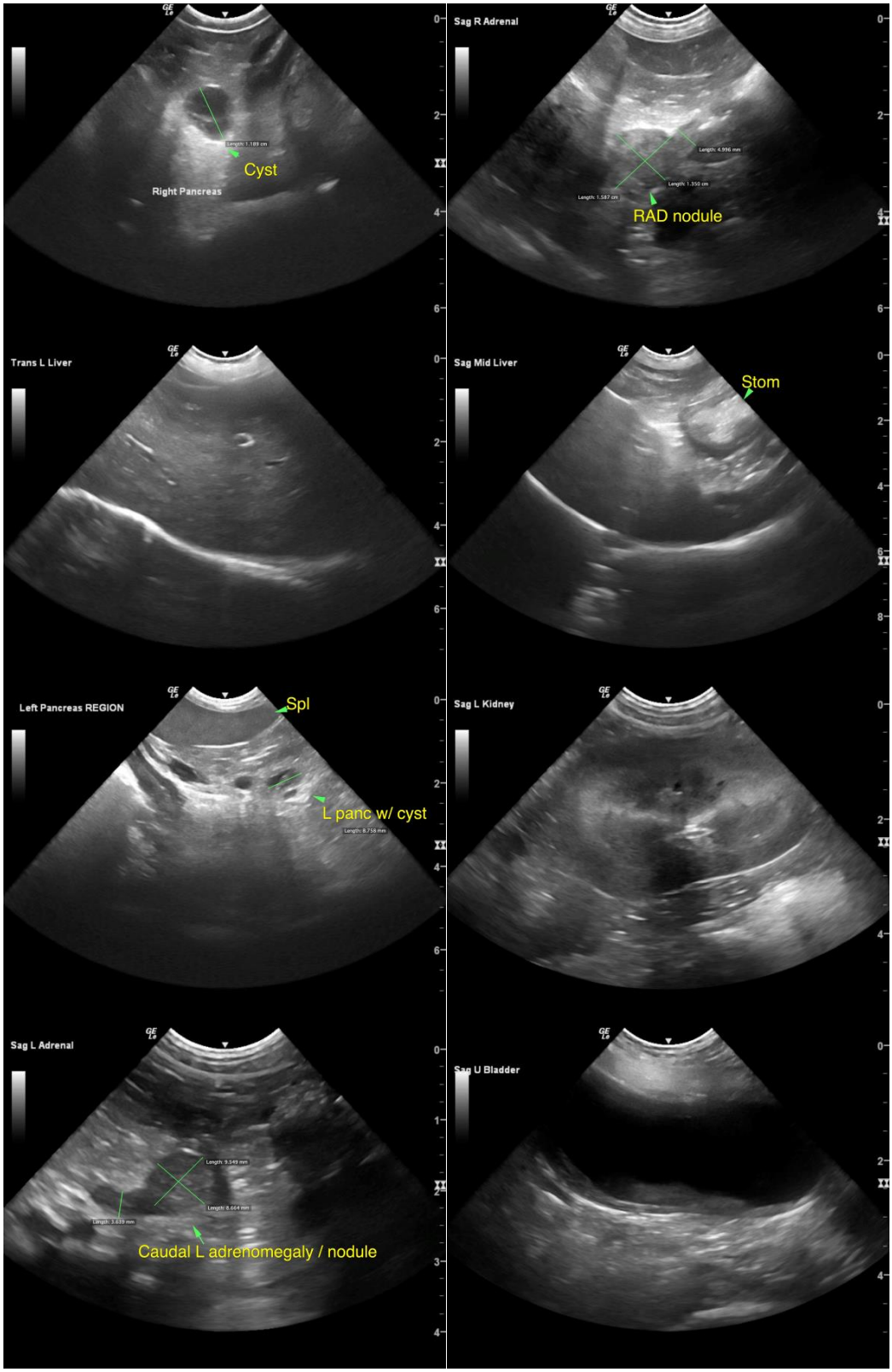
Dr. Leboldus

INVOICE

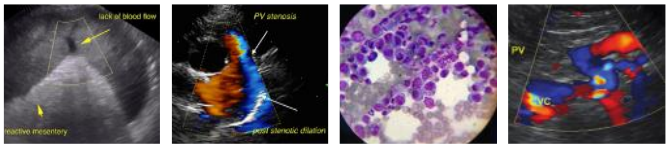
15871

DATE

1/18/23



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Rupert Troyer

SPECIES

Canine

BREED

West Highland White Terrier

SEX

MN

AGE

13 years

WEIGHT

8 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Sarah Barthelemy

HOSPITAL NAME

Signal Hill AC

REFERRING VET

Dr. Leboldus

INVOICE

15871

DATE

1/18/23

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com