**PATIENT**

Zeus Fligge

SPECIES

Canine

BREED

Miniature Pinscher

SEX

MN

AGE

16yr

WEIGHT

19lb

INTERPRETED BYR. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)**IMAGING
PERFORMED BY**

Rachel Runnells RVT

HOSPITAL NAME

SVS Imaging KC

REFERRING VET

Dr. Ballenger

INVOICE

12817ag

DATE

01/30/2023

PRESENTING CLINICAL SIGNS

Has been diabetic for nearly 2 years. Been stable on Novolin, never been on another brand, but owner says typically hovers in the mid-200s, which isn't ideal but seemed to control symptoms. Owner monitors his glucose through the Freestyle Libre. Was seen for acute gastritis in Nov 2022 but recovered from that. Owner reports over the last couple of days Zeus hasn't been eating well. No V/D. Blood glucoses have fluctuated from 60 to "Hi" within hours. It is unusual for Zeus' glucoses to drop so low.

Abnormal PE/Chem/CBC/UA Results: Bloodwork showed ALT 315, ALP 618, GGT 46. SNAP cPL abnormal. Radiograph report from radiologist: moderate hepatomegaly, rule outs should include passive congestion, metabolic/endocrine disease, extramedullary hematopoiesis, nodular regeneration, and diffuse infiltrative inflammatory or neoplastic disease. There is no evidence for radiopaque gastrointestinal foreign material or an obstructive small intestinal pattern.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder was subnormal in size owing to lack of urine distension which prohibited full evaluation of the urinary bladder walls. The trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. Pinpoint to focal medullary mineral and small cortical cysts were present bilaterally. The renal medullary volume was subjectively reduced. The left kidney measured 5.5 cm in length. The right kidney measured 5.7 cm in length.

The area of the aortic trifurcation was free of pathology.

The area of the residual prostate appeared normal and free of pathology.

Adrenal Glands

The bilateral adrenal glands were indistinctly visualized. The left adrenal gland measured 0.39 cm width at the caudal pole and 0.48 cm width at the cranial pole. The right adrenal gland measured 0.58 cm width at the caudal pole and 0.66 cm width at the cranial pole.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multifocal, coalescing non-disruptive hyperechoic nodules were present throughout the cranial to caudal parenchyma. 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. Acute to chronic inflammatory or neoplastic changes were not noted. The hyperechoic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver/Gallbladder

The liver exhibited enlarged size with generalized mild non-homogenous parenchyma and moderate coarse echotexture. A non-homogenous hyperechoic focally cystic mass was present in the mid to left

**PATIENT**

Zeus Fligge

liver measuring ~ 7.0 cm in diameter. The hepatic and portal vasculature were normal in appearance without signs of congestion.

SPECIES

Canine

The gallbladder was non distended in size with echogenic, nonmineralized, non-dependent biliary sludge. The biliary sludge was non organized with a hypoechoic to anechoic, irregular to interrupted rim visible between the nondependent sludge and inner wall. No signs of peripheral inflammation. The cystic and common bile ducts were normal.

Gastrointestinal**BREED**

Miniature Pinscher

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained moderate variably echogenic focally shadowing ingesta with no signs of ileus, obstruction or foreign material.

SEX

MN

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine contained generalized non-shadowing ingesta/chyme with no signs of ileus, obstruction or foreign material.

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

AGE

16yr

Pancreas

The pancreas was variably prominent exhibiting capsule asymmetry and isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

WEIGHT

19lb

Free Abdomen

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

INTERPRETED BY

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

ULTRASONOGRAPHIC FINDINGS

- Moderate non-specific chronic renal changes exhibiting medullary dystrophic mineral and cortical cysts
- Benign splenic nodules-consistent with myelolipomas
- Chronic hepatopathy with left intraparenchymal mass
- Immature gallbladder mucocele
- Irregular non-homogenous pancreas
- Gastrointestinal ingesta

IMAGING PERFORMED BY

Rachel Runnells RVT

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**HOSPITAL NAME**

SVS Imaging KC

A full urinary workup including C/S is recommended especially if glucosuria is present. Suspect chronic to chronic active pancreatitis in conjunction with abnormal cPL. No sonographic evidence of significant pancreatitis or pancreatic neoplasia was present. Assuming normal clotting status and using a 25g needle, a hepatic parenchyma and liver mass FNA for screening cytology is warranted for further assessment. The GI ingesta may indicate post prandial presentation however given reported decreased appetite or if documented NPO some degree of non-obstructive GI metabolic stasis could be possible.

REFERRING VET

Dr. Ballenger

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/>.

INVOICE

12817ag

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>

DATE

01/30/2023

IMAGING PERFORMED BY

SVS Mobile Imaging KC 816-401-5010
svsimagingkc@gmail.com



PATIENT

Zeus Fligge

SPECIES

Canine

BREED

Miniature Pinscher

SEX

MN

AGE

16yr

WEIGHT

19lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Runnells RVT

HOSPITAL NAME

SVS Imaging KC

REFERRING VET

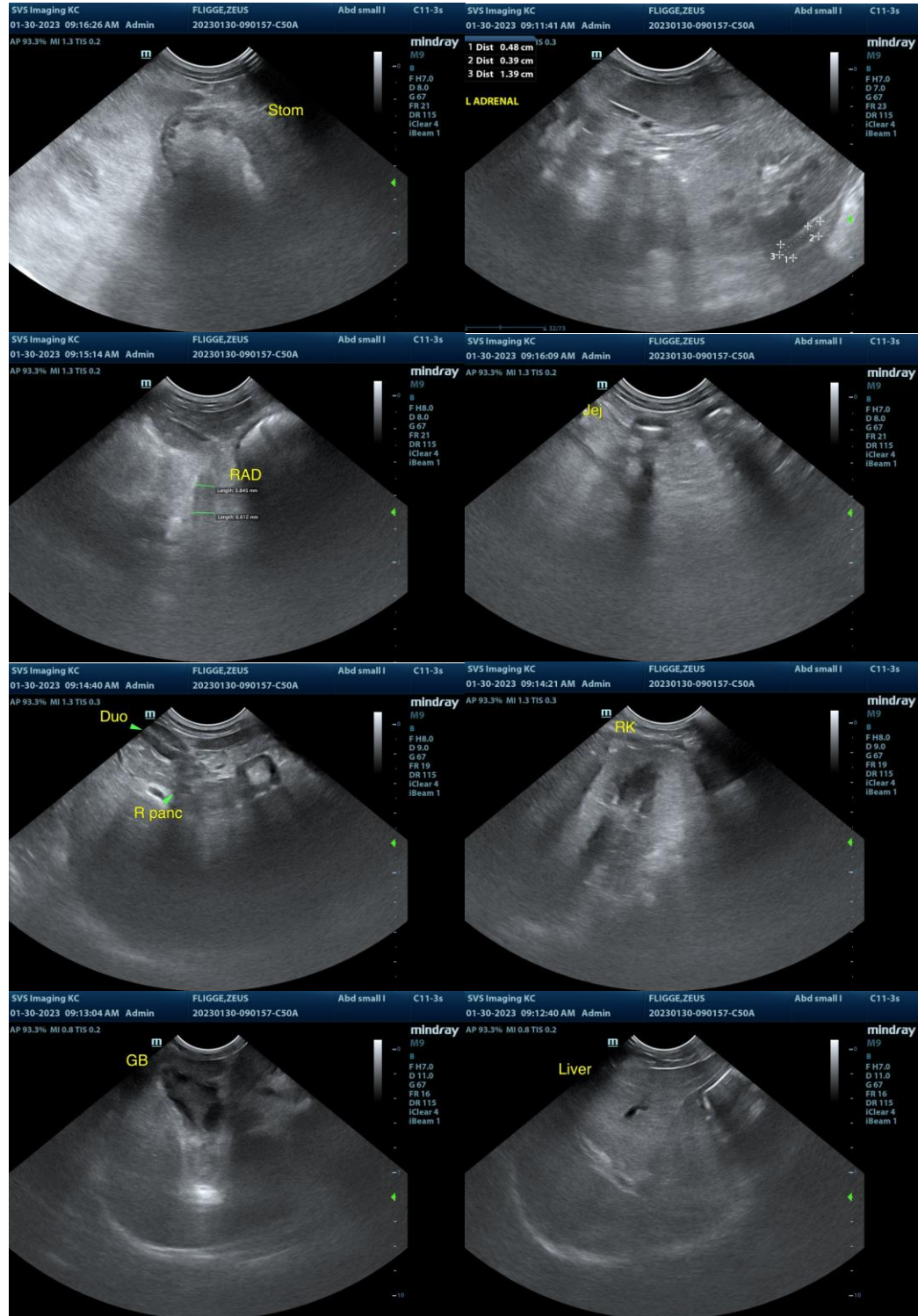
Dr. Ballenger

INVOICE

12817ag

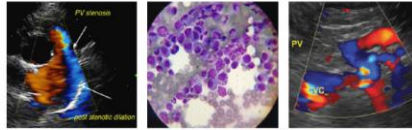
DATE

01/30/2023



IMAGING PERFORMED BY

SVS Mobile Imaging KC 816-401-5010
svsimagingkc@gmail.com



Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Zeus Fligge

SPECIES

Canine

BREED

Miniature Pinscher

SEX

MN

AGE

16yr

WEIGHT

19lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Runnells RVT

HOSPITAL NAME

SVS Imaging KC

REFERRING VET

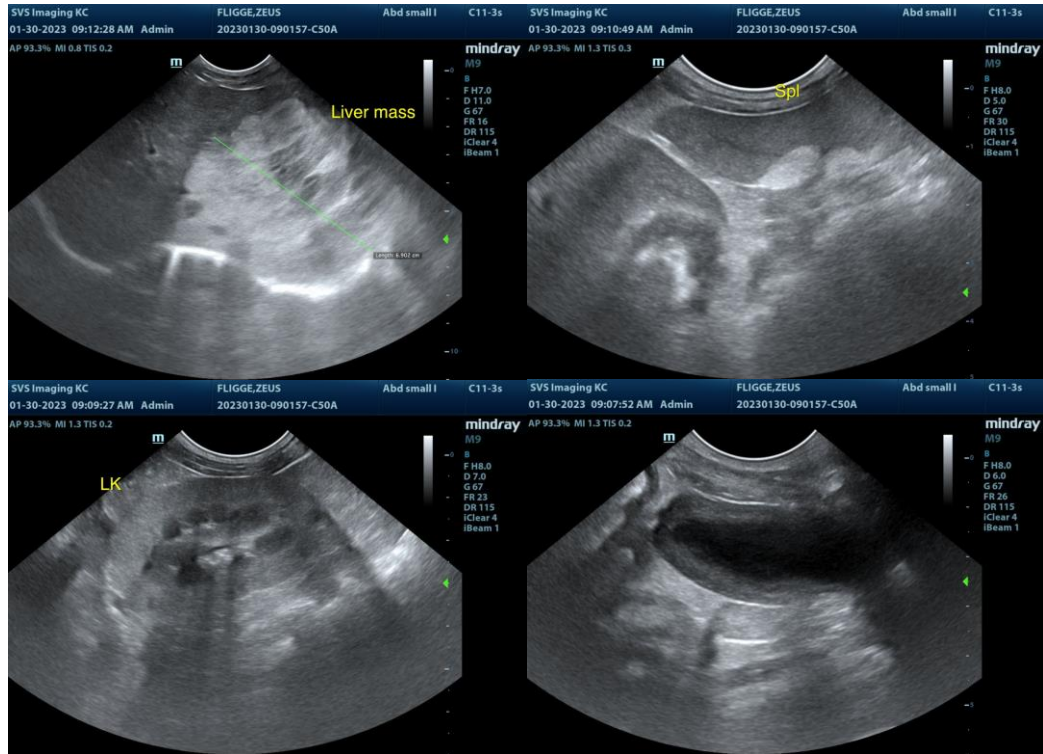
Dr. Ballenger

INVOICE

12817ag

DATE

01/30/2023



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