



PATIENT

Star Thompson

SPECIES

Canine

BREED

Sheltie

SEX

Spayed female

AGE

5 years

WEIGHT

25 lbs

INTERPRETED BY

Eric Lindquist, DMV,
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Silver Creek AC

REFERRING VET

Dr. Tangeman

DATE

2/23/23

Invoice

42935

PRESENTING CLINICAL SIGNS

History: Patient presented on 2/18/23 for ataxia. No known toxins patient could have gotten into. On exam no pain sources were found and CPs were normal, but hind end was wobbly when walking. Ear canals were clear and no nystagmus. Patient has been taking Carprofen for possible bursitis in the right tarsal joint, but no pain was found there today. QAR Current Medications Stopped Carprofen and started Lactulose and Metronidazole Radiographic Findings FINDINGS 4 images of the thorax and abdomen are presented for review. The cardiovascular and pulmonary structures are normal. The pleural and mediastinal structures are normal. Abdominal serosal detail is adequate in all quadrants. Liver volume is adequate. The stomach contains a moderate amount of gas. The small intestines are normal in size. Gas and feces are present in the colon. The urinary bladder is small. The remaining abdominal organs are normal. Spinal alignment is normal with no consistently narrowed intervertebral disc spaces. The coxofemoral joints are congruent. No fractures or aggressive osseous lesions are seen. CONCLUSIONS Radiographically normal thorax and abdomen. Unremarkable osseous structures. Primary Question/Differential to Be Answered in This Exam Primary liver disease or changes secondary to Carprofen. Suspected hepatic encephalopathy
Abnormal PE/Chem/CBC/UA Results: CBC: normal Chemistry: ALT 141, total bilirubin: 2.3, total protein 9, and Albumin 4.5

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

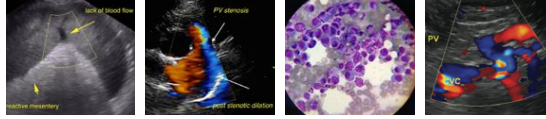
The **kidneys** were normal in size and contour. Minor, loss of corticomodullary definition and minor cortical remodeling was noted. The right kidney measured 5.1 cm. The left kidney measured 4.76 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 2.03 x 0.45 cm at the caudal pole and 0.35 cm at the cranial pole. The right adrenal gland measured 2.73 x 0.38 cm at the caudal pole and 0.44 cm at the caudal pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.



PATIENT

Liver

Star Thompson

SPECIES

Canine

BREED

Sheltie

SEX

Spayed female

AGE

5 years

WEIGHT

25 lbs

INTERPRETED BY

Eric Lindquist, DMV,
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Silver Creek AC

REFERRING VET

Dr. Tangeman

DATE

2/23/23

Invoice

42935

The **liver** was normal in size and contour with uniform parenchyma and normal vascularity. There was no evidence of intrahepatic or extrahepatic shunting. The portal vein to vena cava ratio was 1:1 each measured 0.6 cm. The duodenal papilla and common bile duct were normal. Intrahepatic vascular volume was normal. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

Gastrointestinal

A minor amount of fluid filled **pyloric** lumen was noted. This is suggestive for inflammation. The small intestines and colon were unremarkable.

Pancreas

The right limb of the **pancreas** was mildly heterogenous.

ULTRASONOGRAPHIC FINDINGS

Essentially normal liver at this point. Reactive hepatopathy is likely.

History of pancreatitis and gastritis is likely. Low-grade inflammation is likely.

Minor changes noted in the kidneys.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Subxiphoid palpation is recommended. There was no evidence of post hepatic obstruction. I cannot justify the bilirubin elevation in this patient. I recommend reassessing to ensure this is not artifactual. Bile acid profile would be ideal. Consideration for Leptospirosis is warranted. Empirical treatment with IV fluid support, Ampicillin, Metronidazole and nutraceuticals, GI protectants +/- pain management can all be considered. FNA of the liver after coagulation panel would be warranted. Structurally the liver at this point is unremarkable. If inflammatory process continues some remodeling may occur in the near future.



PATIENT

Star Thompson

SPECIES

Canine

BREED

Sheltie

SEX

Spayed female

AGE

5 years

WEIGHT

25 lbs

INTERPRETED BY

Eric Lindquist, DMV,
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Silver Creek AC

REFERRING VET

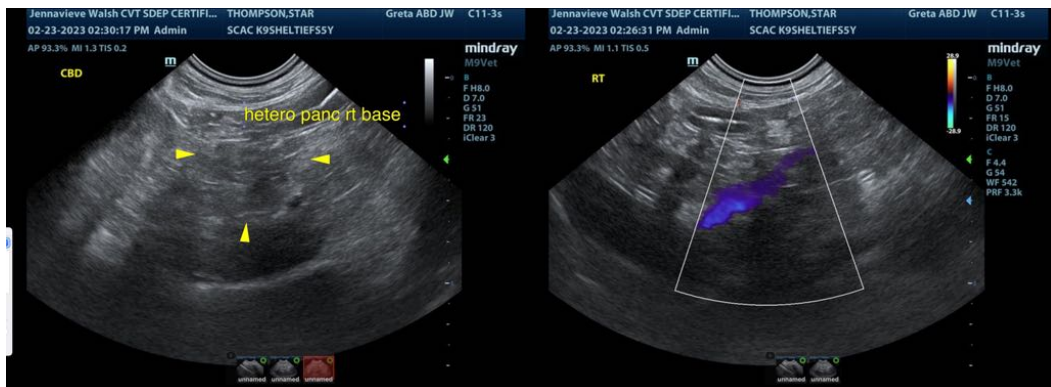
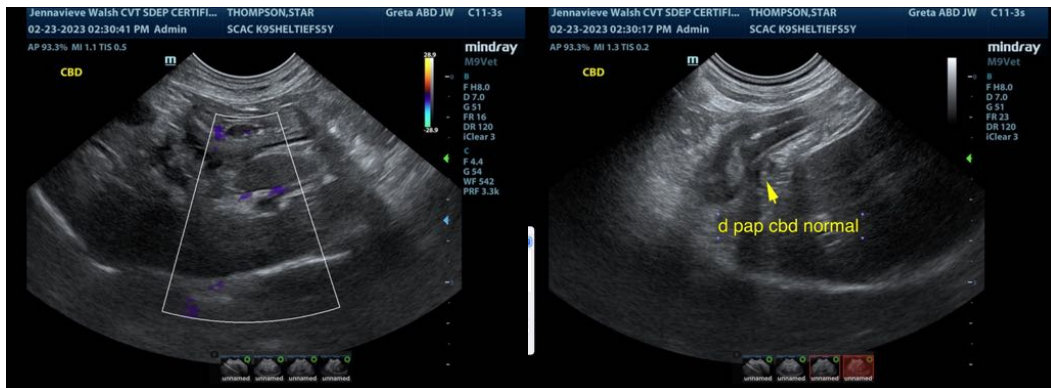
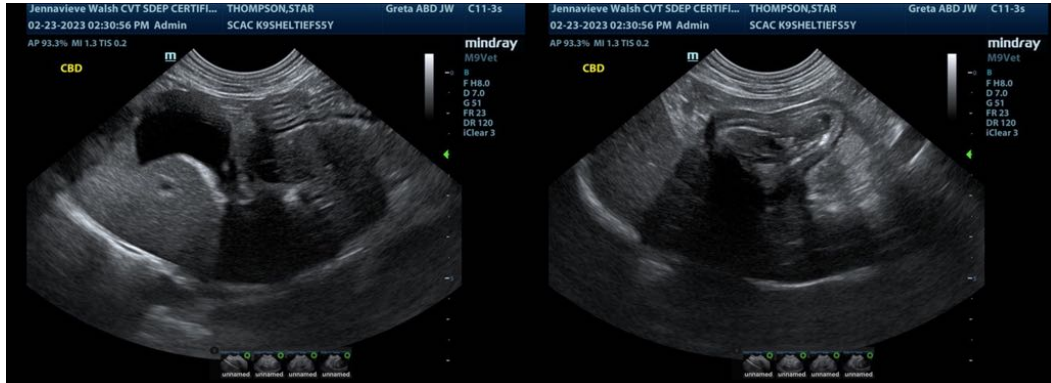
Dr. Tangeman

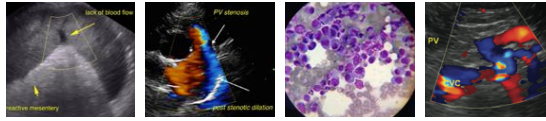
DATE

2/23/23

Invoice

42935





PATIENT

Star Thompson

SPECIES

Canine

BREED

Sheltie

SEX

Spayed female

AGE

5 years

WEIGHT

25 lbs

INTERPRETED BY

Eric Lindquist, DMV,
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Silver Creek AC

REFERRING VET

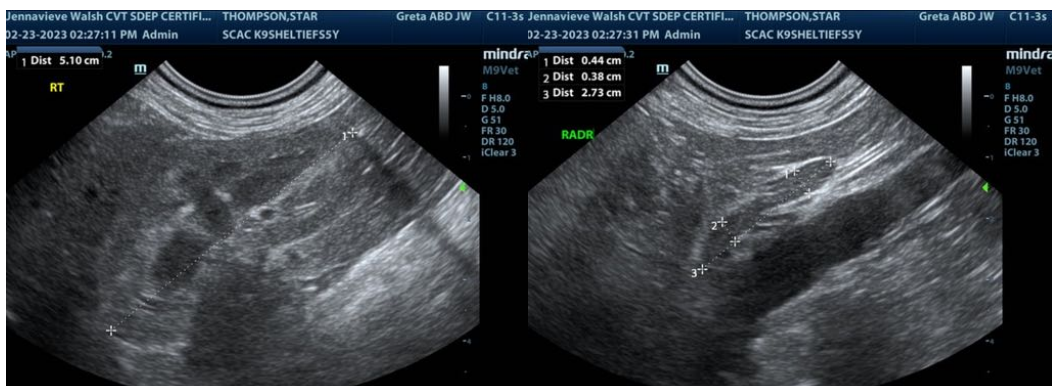
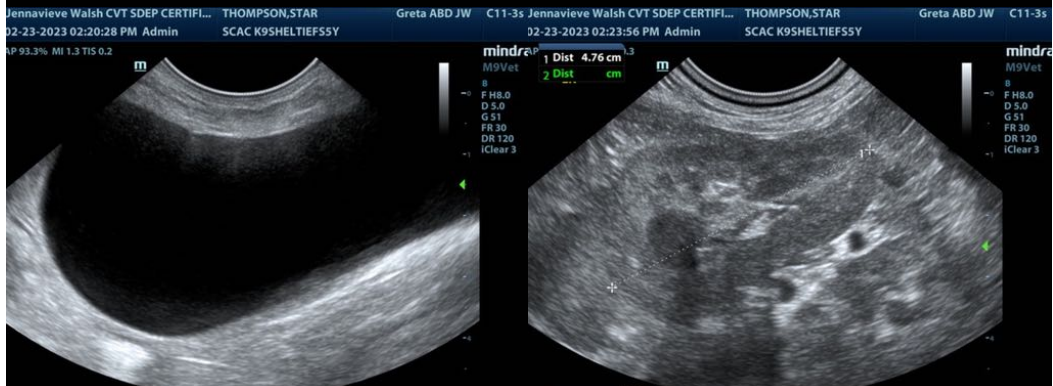
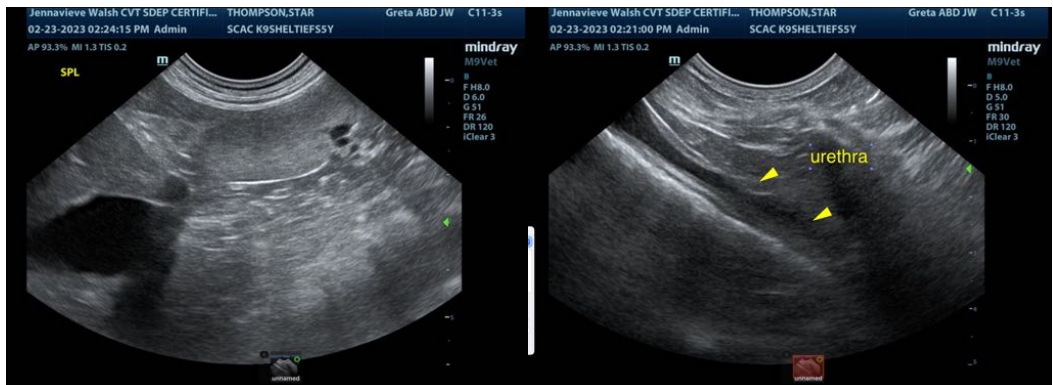
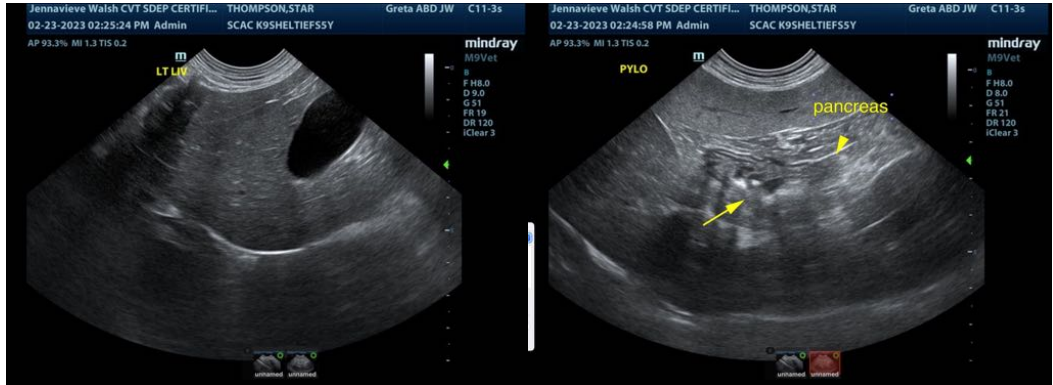
Dr. Tangeman

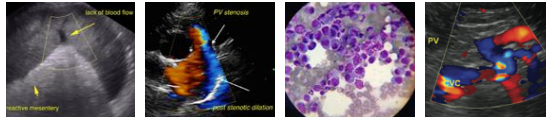
DATE

2/23/23

Invoice

42935





PATIENT

Star Thompson

SPECIES

Canine

BREED

Sheltie

SEX

Spayed female

AGE

5 years

WEIGHT

25 lbs

INTERPRETED BY

Eric Lindquist, DMV,
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Silver Creek AC

REFERRING VET

Dr. Tangeman

DATE

2/23/23

Invoice

42935



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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS

CEO of Sonopath.com

Eric.Lindquist@SonoPath.com