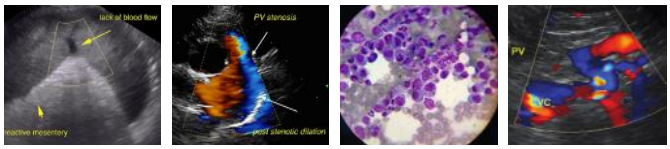
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Zeus Stauft

SPECIES
Canine

BREED
Maltipoo

SEX
MN

AGE
12yr

WEIGHT
7kg

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

IMAGING PERFORMED BY
Dr. Belan

HOSPITAL NAME
Signal Hill Animal Hospital

REFERRING VET
Dr. Lebouldus

INVOICE
11216ag

DATE
07/26/2022

PRESENTING CLINICAL SIGNS

History: Elevated liver enzymes patient is non clinical screening for possible underlying hepatic disease. Patient is on hepato support

Abnormal PE/Chem/CBC/UA Results: mild to mod elevation of liver enzymes

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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 size and margination was 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 was present. The left kidney measured 4.3 cm in length. The right kidney measured 4.4 cm in length.

The area of the aortic trifurcation was free of pathology.

No overt pathology in the area of the residual prostate.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.37 cm width at the caudal pole and 0.51 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.50 cm width at the caudal pole.

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.

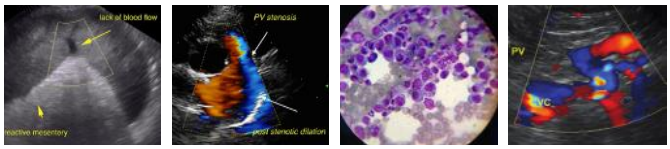
Liver

The liver was mildly enlarged in size with normal structure and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild to moderate inspissated nondependent luminal debris along with focal areas of debris along the inner luminal wall. An area of inspissated gallbladder debris measured 1.2 cm in diameter. The cystic and common bile ducts were normal.

Gastrointestinal

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Zeus Stauft

SPECIES

Canine

BREED

Maltipoo

SEX

MN

AGE

12yr

WEIGHT

7kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Signal Hill Animal Hospital

REFERRING VET

Dr. Lebouldus

INVOICE

11216ag

DATE

07/26/2022

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

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

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

Intermittent mildly prominent to enlarged mesenteric node was present. The lymph node was essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). The lymph node measured 0.95 cm width. These are likely incidental and are not consistent with inflammatory or neoplastic criteria.

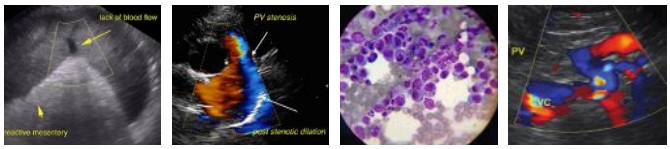
ULTRASONOGRAPHIC FINDINGS

- Hepatopathy-benign
- Moderate nondependent to inspissated gallbladder debris
- Mild chronic renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The overall appearance of the liver is nonspecific yet consistent with benign hepatopathy. Depending on the degree of hepatic enzyme elevation, considerations may include vacuolar hepatopathy, immune mediated disease, toxic hepatopathy i.e. copper or other hepatopathy without evidence of neoplastic criteria. Some degree of cholestasis is suspected given the presence of inspissated gallbladder debris. Potential for very early noninflamed mucocele formation is possible. Hepatosupportive medications including the addition of Ursodiol given the presence of gallbladder debris with continued monitoring of liver enzymes would be reasonable. Hepatic sampling is likely indicated for a definitive diagnosis and could be considered if persistent/progressive hepatic enzyme elevations.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Zeus Stauft

SPECIES

Canine

BREED

Maltipoo

SEX

MN

AGE

12yr

WEIGHT

7kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Signal Hill Animal Hospital

REFERRING VET

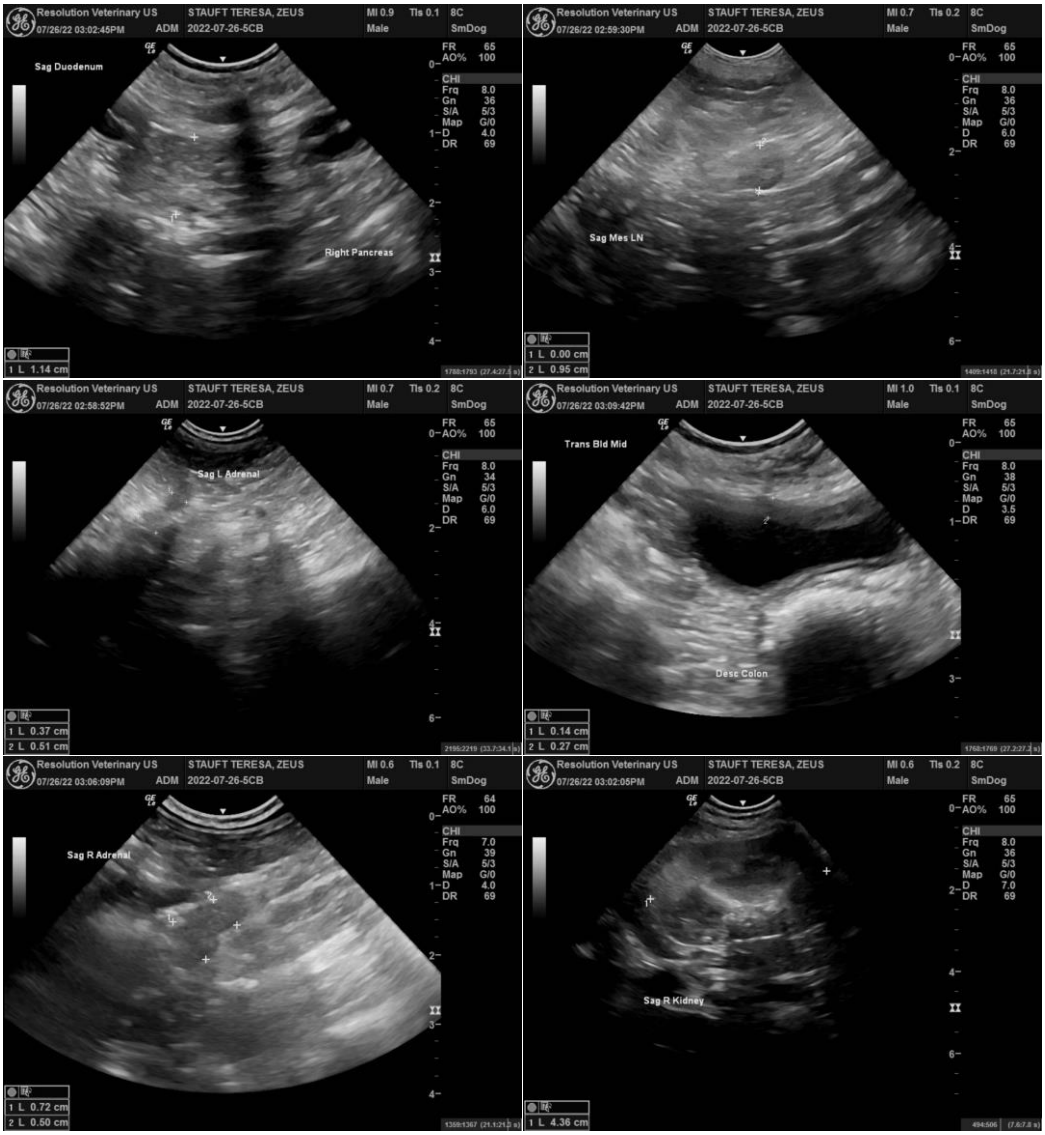
Dr. Lebouldus

INVOICE

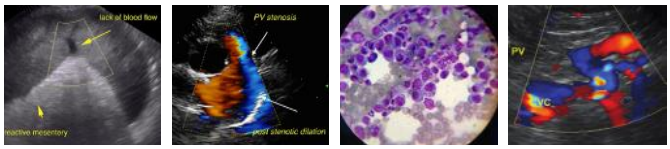
11216ag

DATE

07/26/2022



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Zeus Stauft

SPECIES

Canine

BREED

Maltipoo

SEX

MN

AGE

12yr

WEIGHT

7kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Signal Hill Animal Hospital

REFERRING VET

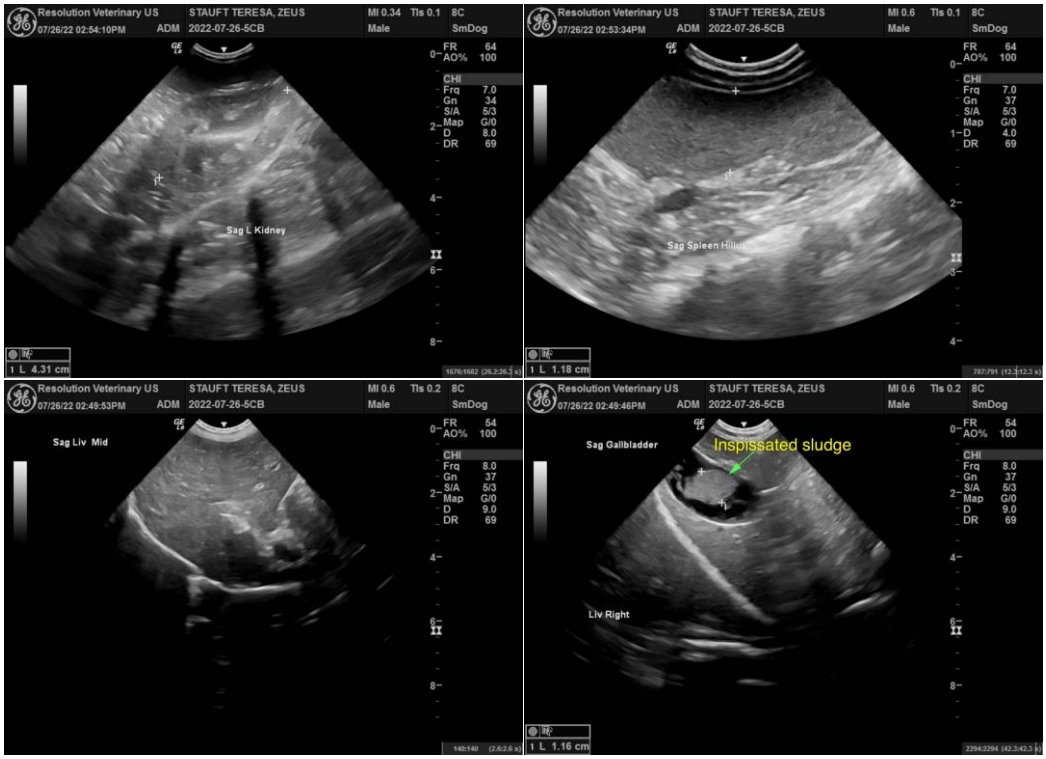
Dr. Lebouldus

INVOICE

11216ag

DATE

07/26/2022



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