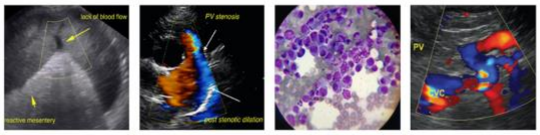
Pennsylvania Mobile
VETERINARY ULTRASOUND SERVICES
IMAGING PERFORMED BY
PAMobileVet.com 443-794-4700



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Emma Papuc

SPECIES

Canine

BREED

None given

SEX

FS

AGE

13 years

WEIGHT

25 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rebekah Jakum, CVT ARDMS/RVT

HOSPITAL NAME

Community VP

REFERRING VET

Dr. Hulshizer

INVOICE

13048

DATE

12.13.2021

PRESENTING CLINICAL SIGNS

History: Elevated liver values. ALP 554, ALT 192

Medication: Hepaticlear

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 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.

Aortic trifurcation was normal.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 5.3 cm in length. The right kidney measured 5.6 cm in length.

Adrenal Glands

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.74 cm width in the cranial pole and 0.48 cm width in the caudal pole. The right adrenal gland measured 0.76 cm width in the cranial pole and 0.63 cm width in the caudal pole.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Several multifocal, well-defined, symmetrical, echogenic nodules were present within the medial parenchyma adjacent to the hilus, non-expansive. 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 echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

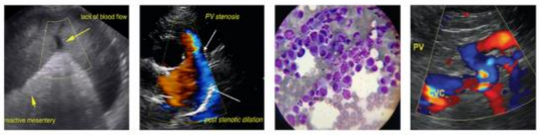
Liver

The liver exhibited subjective mild generalized enlargement and maintained symmetrical capsule contour. Mild increased generalized parenchyma echogenicity with moderate coarse echotexture and intermittent discreet non-expansive hypoechoic intraparenchymal nodules present. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non distended in size with mild echogenic, nonmineralized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

Gastrointestinal

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.



PATIENT

Emma Papuc

SPECIES

Canine

BREED

None given

SEX

FS

AGE

13 years

WEIGHT

25 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rebekah Jakum, CVT ARDMS/RVT

HOSPITAL NAME

Community VP

REFERRING VET

Dr. Hulshizer

INVOICE

13048

DATE

12.13.2021

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 parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hepatopathy with intermittent discreet hypoechoic intraparenchymal nodules
- Mild gallbladder debris (non-mucocele)

Secondary Findings

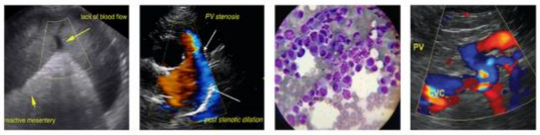
- Benign splenic nodules- probable benign myelolipomas
- Age-related mild kidneys

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall appearance of the liver was non-specific yet likely indicative of chronic hepatopathy. Considerations may include vacuolar hepatopathy, chronic hepatitis/cholangiohepatitis with intermittent discreet areas of hematopoiesis, nodular to regenerative hyperplasia or other hepatopathy. Hepatic parenchymal or nodular neoplasia considered a less likely differential diagnosis.

Further assessment may include hepatic FNA, assuming normal clotting status and using a 25-gauge needle, for screening cytology, primarily to assess for evidence of inflammatory cells. Continued hepatosupportive medications, including ursodiol, due to its antioxidant and immunomodulatory effects within the liver as well as the presence of mild gallbladder debris which may suggest concurrent nonclinical cholestasis, may prove beneficial. Recheck sonogram suggested to assess for progressive hepatic changes if persistent/progressive hepatic enzyme elevations despite hepatosupportive medications.

Pennsylvania Mobile
VETERINARY ULTRASOUND SERVICES
IMAGING PERFORMED BY
PAMobileVet.com 443-794-4700



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Emma Papuc

SPECIES

Canine

BREED

None given

SEX

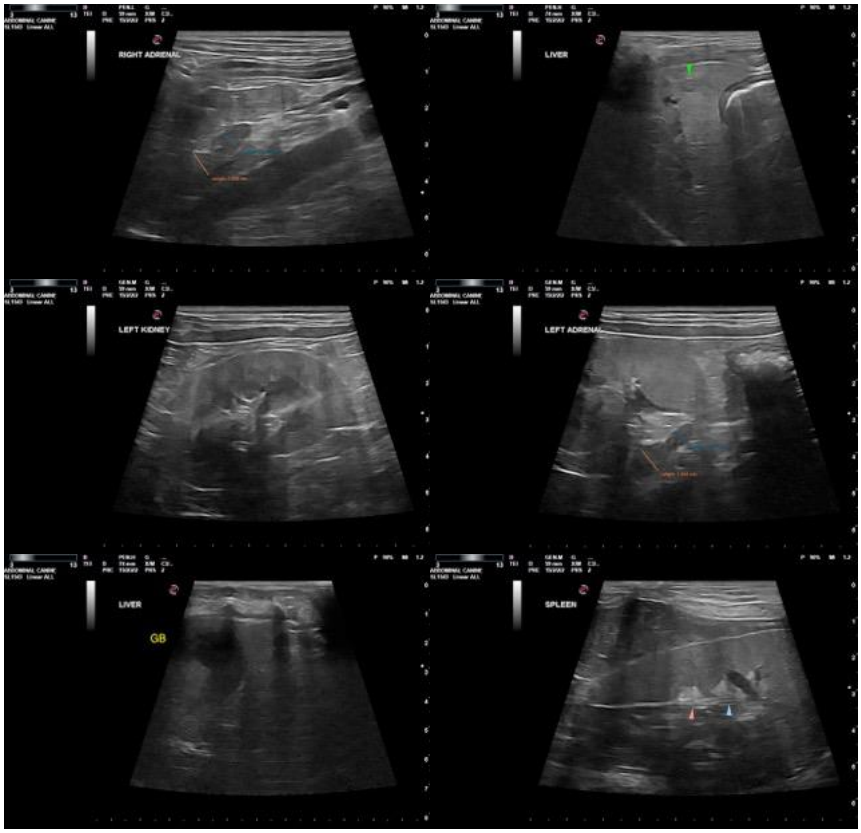
FS

AGE

13 years

WEIGHT

25 Pounds



INTERPRETED BY

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

IMAGING PERFORMED BY

Rebekah Jakum, CVT ARDMS/RVT

HOSPITAL NAME

Community VP

REFERRING VET

Dr. Hulshizer

INVOICE

13048

DATE

12.13.2021

The information and recommendations provided are based on the images presented by the referring veterinarian. 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)
mac.daniel@sonopath.com