



PATIENT PRESENTING CLINICAL SIGNS

Sheba Elliot History: Elevated liver values on routine bloodwork, clinically normal
 Medication: Hepatobenefits

SPECIES ALT 511, otherwise unremarkable chemistry panel, unremarkable CBC.

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED *Urinary System*

Malamute Mix

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4.0 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.

SEX

FS

The area of the aortic trifurcation was free of pathology.

AGE

10 years

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 6.7 cm. The right kidney measured 6.6 cm.

Adrenal Glands

WEIGHT

99 Pounds

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 3.3 cm length x 0.77 cm at the caudal pole. The right adrenal gland measured 2.5 cm length x 0.63 cm at the caudal pole.

INTERPRETED BY *Spleen*

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

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical 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, neoplastic, or benign parenchyma changes were not noted.

IMAGING PERFORMED BY *Liver*

Rebekah Jakum, CVT
 ARDMS/RVT

The liver exhibited subjective generalized normal size with primarily maintained symmetrical hepatic contour. Subtle generalized increased hepatic parenchyma echogenicity noted compared to the falciform fat and spleen with moderate coarse echotexture, evidence of parenchymal remodeling, and intermittent subtle, hypoechoic nodules. The gallbladder was non distended in size with mild, echogenic, nonorganized gallbladder debris. The cystic duct and common bile ducts were normal without evidence of dilation.

HOSPITAL NAME

Pocono Peak VC

Gastrointestinal

REFERRING VET

Dr. Coyle

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.

INVOICE

24562

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.

DATE

8.11.2021



PATIENT *Pancreas*

Sheba Elliot 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.

SPECIES

Canine

BREED

Malamute Mix

PRIMARY FINDINGS

- Chronic hepatopathy
- Mild gallbladder debris (non-mucocele)

SECONDARY FINDINGS

- Mild age related kidneys

SEX

FS

AGE

10 years

WEIGHT

99 Pounds

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The overall appearance of the liver is non-specific, yet most consistent with chronic, likely benign hepatopathy. Primary consideration for non-specific inflammatory hepatic or hepatobiliary process i.e., hepatitis/cholangiohepatitis (infectious, immune mediated or other), given the ALT elevation and presence of mild gallbladder debris. The mild gallbladder debris may also suggest some degree of non-clinical cholestasis or may be owing to fasting. Evidence of minor hepatic parenchymal remodeling and likely benign subtle nodular parenchymal nodular changes such as areas of lymphoid to regenerative hyperplasia or hematopoiesis probable. Hepatic neoplasia is considered an unlikely differential diagnosis. Hepatic sampling would be required for further assessment. Continued hepatosupportive medications including Ursodiol (due to its antioxidant and immunomodulatory effects within the liver and the presence of gallbladder debris) may prove beneficial. Leptospirosis titers/PCR may be considered if clinically indicated.

INTERPRETED BY

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

IMAGING PERFORMED BY

Rebekah Jakum, CVT
ARDMS/RVT

HOSPITAL NAME

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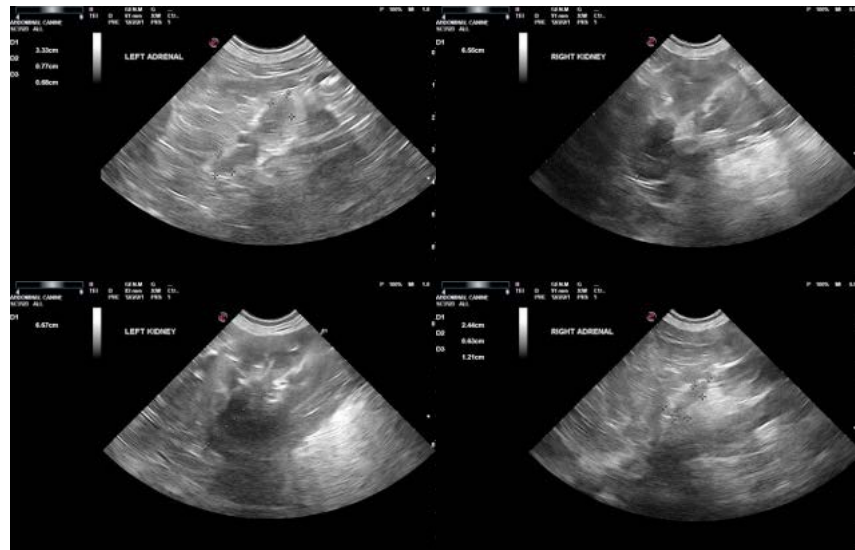
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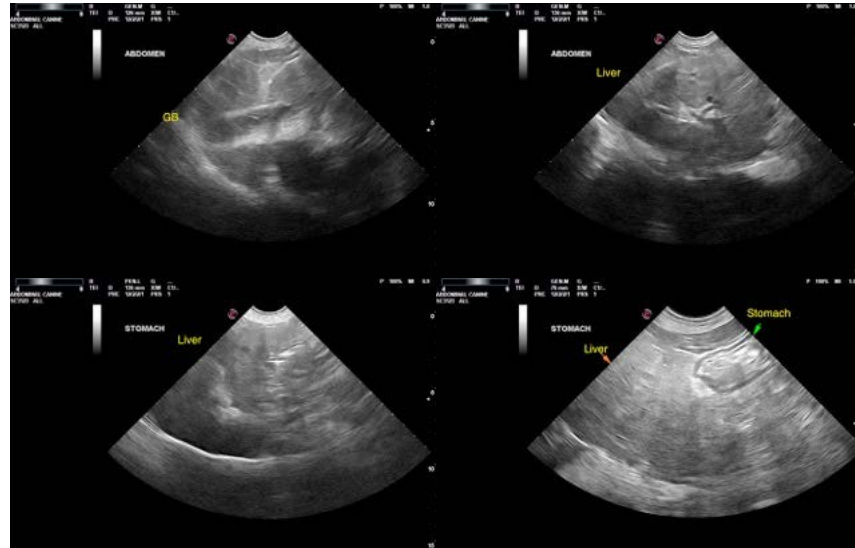
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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