



PATIENT

Cooper Tews

SPECIES

Canine

BREED

Terrier Mix

SEX

Neutered Male

AGE

2016

WEIGHT

34.8

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP (Canine
/ Feline Practice)

**IMAGING
PERFORMED BY**

Rebekah Jakum, CVT,
ARDMS/RVT

HOSPITAL NAME

Lehigh Valley Animal
Hospital

REFERRING VET

Dr. Meyer

INVOICE

12088

DATE

11/04/25

PRESENTING CLINICAL SIGNS

Elevated liver values on pre surgical bloodwork

Medication: Denamarin

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 minor focal dependent lumen mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic change were noted.

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

The area of the aortic trifurcation was free of pathology.

Normal size and margination was 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 5.0 cm in length. The right kidney measured 5.0 cm in length.

Adrenal Glands

Bilateral symmetrical adrenal gland enlargement (based on caudal pole width measurement in light of body weight) with uniformly hypoechoic parenchyma was present. The left adrenal gland measured 0.71 cm width at the caudal pole. The right adrenal gland measured 0.94 cm width at the caudal pole.

Spleen

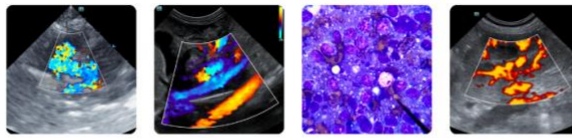
The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non distended in size with primarily gravity dependent congealed yet nonorganized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

Gastrointestinal



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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 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

- Nonspecific hepatopathy- subjective benign.
- Congealed nonorganized gallbladder debris (non-mucocele).
- Bilateral mild adrenomegaly- nonspecific.
- Minor urinary bladder dependent lumen mineral.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of the liver was nonspecific but most consistent with benign hepatopathy. Considerations for the liver may include benign vacuolar hepatopathy, inflammatory/infectious/immune mediated disease, hyperplasia, hematopoiesis, toxic hepatopathy (i.e. copper), other with neoplasia thought less likely. Ultrasound guided FNA of the liver using a 25-gauge needle and assuming normal coagulation parameters would be warranted for screening cytology. Hepatosupportive medications such as Denamarin or Vitamin E as well as Ursodiol due to its antioxidant and immunomodulatory effects within the liver would be warranted, although these medications may not result in decreased hepatic enzyme levels. Leptospirosis titers / PCR may be considered if clinically indicated. Core or surgical biopsy likely required for definitive diagnosis. The mild adrenomegaly is of unclear clinical significance given no reported clinical signs. Correlation with urinalysis +/- adrenal screening if clinical signs suggestive of Cushing's syndrome are nonreported or arise.



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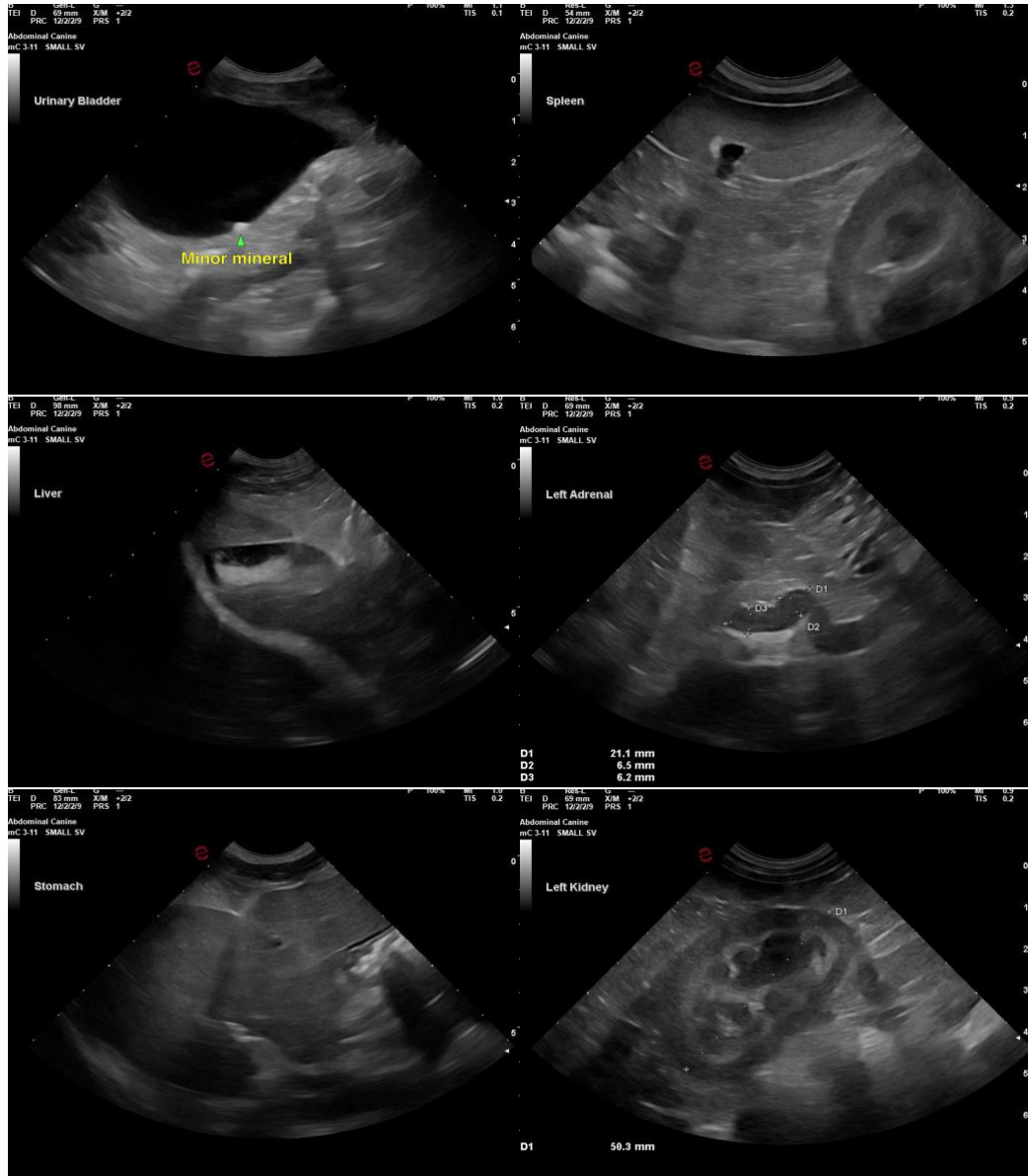
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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