



PATIENT

Frida Tueme

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

Spayed Female

AGE

10 Years

WEIGHT

14.8 pounds

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Pamela Harrigan,
RDCS

HOSPITAL NAME

Norfolk County
Veterinary Service

REFERRING VET

Dr. Tami Ilovich DVM

INVOICE

12441

DATE

11/23/25

PRESENTING CLINICAL SIGNS

History of mildly elevated liver enzymes noted incidentally on pre-op BW prior to dental procedure. ALT 432, AST 57, ALP 787. Presently on Denamarin SID.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Significant dependent to nondependent particulate urine sediment was present with nondependent hyperechoic sand/mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural 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 4.0 cm in length. The right kidney measured 4.5 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 0.50 cm width in the caudal pole. The right adrenal gland measured 0.51 cm width in 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 subjective mildly 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 moderate biliary sludge primarily caudal lumen area of gallbladder neck with nondependent mobile mid to cranial lumen debris. No evidence of pericholecystic inflammation. 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.



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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.

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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.

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Free Abdomen

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No overt lymphadenopathy or peritoneal effusion was present.

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ULTRASONOGRAPHIC FINDINGS

AGE

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- Hepatopathy- consistent with benign hepatopathy criteria.
- Moderate nonorganized gallbladder debris- not consistent with mature mucocele criteria.
- Age-related renal/adrenal changes.
- Moderate dependent to nondependent urine sediment/sand.

WEIGHT

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Vacuolar hepatopathy, inflammatory/immune mediated disease, nonobstructive cholestatic hepatopathy, hepatotoxicosis i.e. copper, hyperplasia or combination with hepatic neoplasia thought less likely. Further assessment may include hepatic FNA cytology primarily to assess for inflammatory criteria. No overt adrenal pathology as a contributing factor in conjunction with nonreported clinical signs. Adrenal work up could be considered if clinical signs consistent with Cushing's syndrome are nonreported or arise. Continued hepatosupportive medications with clinical and sonographic monitoring if progressive hepatopathy or cholestasis would be reasonable. Correlation with urinary work up and urine culture/sensitivity if evidence of UTI is recommended.

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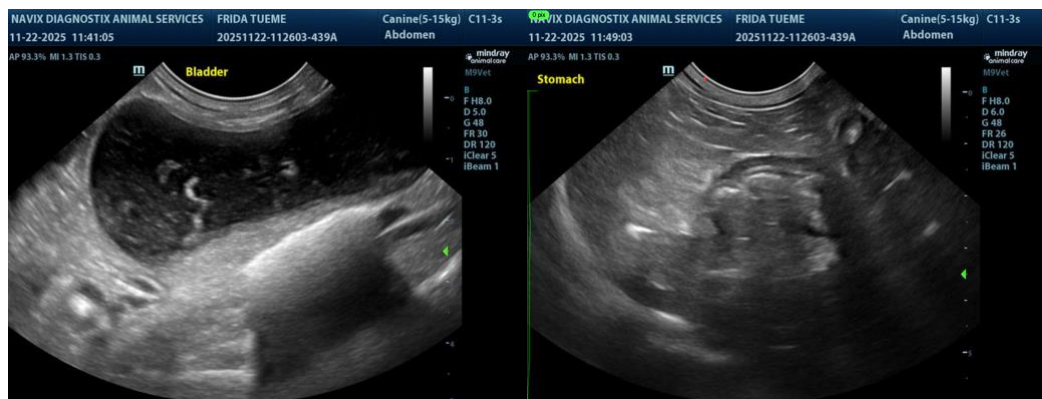
Dr. Tami Ilovich DVM

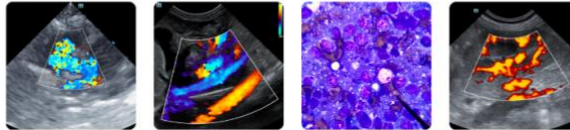
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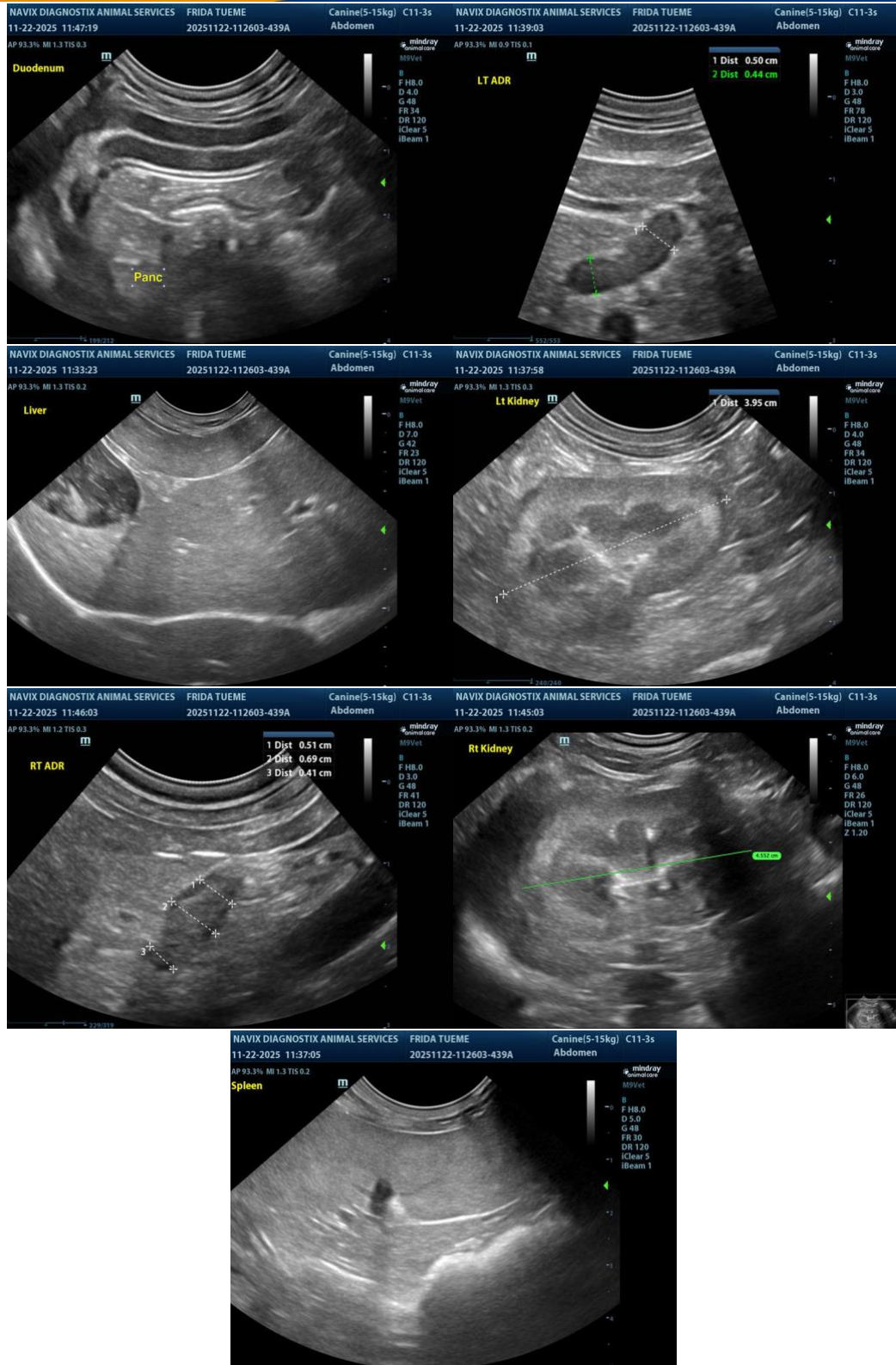
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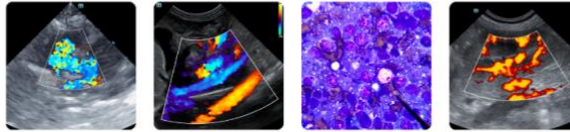
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

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info@SonoPath.com

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