

**PATIENT PRESENTING CLINICAL SIGNS**

Neno Cofone  
**SPECIES** Canine  
 Presents for elevated ionized calcium (1.6) and PU/PD. History of MCTs removed (low grade). History chronic loose stool, resolved. Elevated ALP (310). LDDS test WNL. Chest rads WNL. Urine SG 1.024. Assess hypercalcemia and screen for lymphoma and/or AGASACA. Previous AUS (3/8/21 Katherine Sennello, DVM, Sonopath) showed bilateral age-related renal changes; no evidence of metastatic disease.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Mixed  
**SEX**  
 The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 5.0 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.

MN  
**AGE**  
 The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 1.2 cm in diameter.

12 Years  
 No evidence of pathology in the area of the aortic trifurcation.

**WEIGHT**  
 72.7 lbs  
 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 7.4 cm in length. The right kidney measured 7.0 cm in length.

*Adrenal Glands*

**INTERPRETED BY**

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)  
 The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. Subtle nonexpansive uniform mildly echogenic nonmineralized nodule in the mid to cranial left adrenal gland measuring 1.7 x 0.89cm. The left adrenal gland measured 1.0 cm width in the cranial pole and 0.80 cm width in the caudal pole. The right adrenal gland measured 0.65 cm width in the cranial pole and 0.67 cm width in the caudal pole.

**IMAGING PERFORMED BY**

*Spleen*

Pamela Harrigan, RDCS

The spleen was normal in size and contour with generalized mild splenic parenchyma heterogeneity. No distinct splenic masses or nodules were noted. 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.

**HOSPITAL NAME**

Wood River Animal Hospital

*Liver*

**REFERRING VET**

Casey Schuelke, DVM

The liver was subjectively normal in size, 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. No hepatic masses or nodules noted.

**INVOICE**

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The gallbladder was non distended in size with mild to moderate nondependent, nonorganized, echogenic gallbladder debris and without evidence of inflammation. The cystic duct and common bile ducts were normal without evidence of dilation.

**DATE**

12-12-21

*Gastrointestinal*



**PATIENT**

Neno Cofone

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 gastric body wall measured 0.51 cm width.

**SPECIES**

Canine

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. The duodenum wall measured 0.45 cm width. The jejunum wall measured 0.41 cm width.

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

**BREED**

Mixed

***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.

**SEX**

MN

***Free Abdomen***

Severe mildly prominent hypoechoic to nonhomogeneous mesenteric and medial iliac lymph nodes were present. An example of a mesenteric lymph node measured 1.6 x 0.7 cm. An example of a medial iliac lymph node measured 1.4 x 1.4 cm.

**AGE**

12 Years

The omentum was of uniform echogenicity. No evidence of peritoneal effusion.

**WEIGHT**

72.7 lbs

**ULTRASONOGRAPHIC FINDINGS**

- Mildly heterogeneous spleen.
- Intermittent mild nonspecific mesenteric and medial iliac lymphadenopathy - hyperplasia, lymphadenitis, early neoplastic lymphadenopathy possible.
- Mild chronic renal changes - subjectively static.
- Mild gallbladder debris (nonmucocele)
- Subtle left adrenal nodule - suspect adenoma.

**INTERPRETED BY**

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Minor potential for emerging left adrenal neoplasia i.e., pheochromocytoma or adenocarcinoma thought less likely yet cannot be definitively excluded. Screening blood pressure and sonographic monitoring of the left adrenal for evidence of progressive nodular changes with initial recheck in 4-6 weeks suggested.

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Hospital

Rectal palpation recommended given the medial iliac lymphadenopathy. If no evidence of anal sack tumors and without evidence of thoracic pathology, ultrasound guided FNA of the medial iliac lymph node, +/- screening hepatosplenic FNA using a 25-gauge needle could be considered for further clarification.

**REFERRING VET**

Casey Schuelke, DVM

The gallbladder debris may be secondary to fasting or indicate nonclinical cholestasis.

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Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

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**AGE**

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**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

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 Hospital

**REFERRING VET**

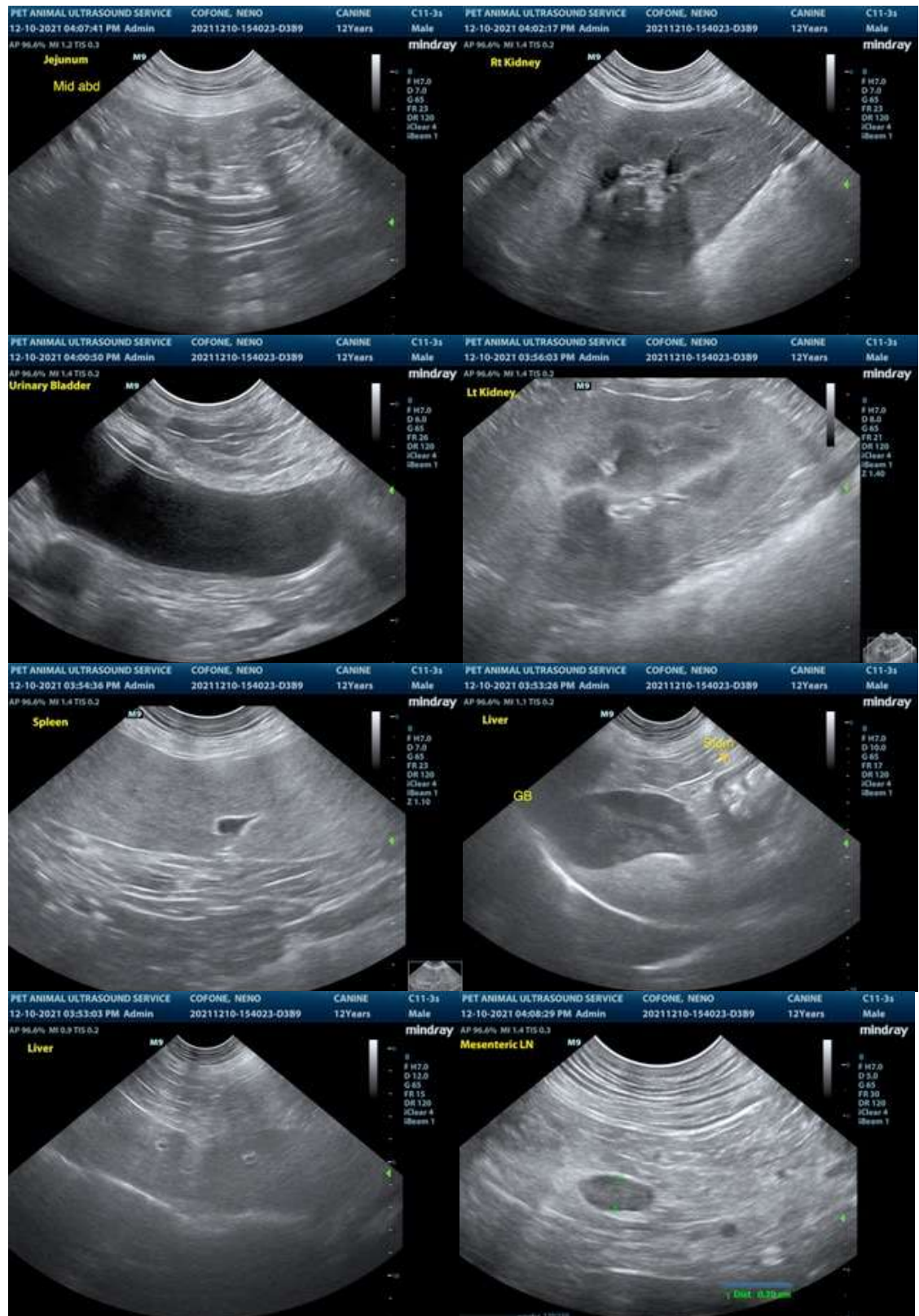
Casey Schuelke, DVM

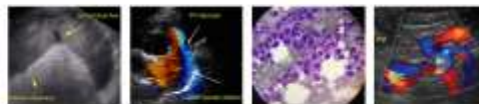
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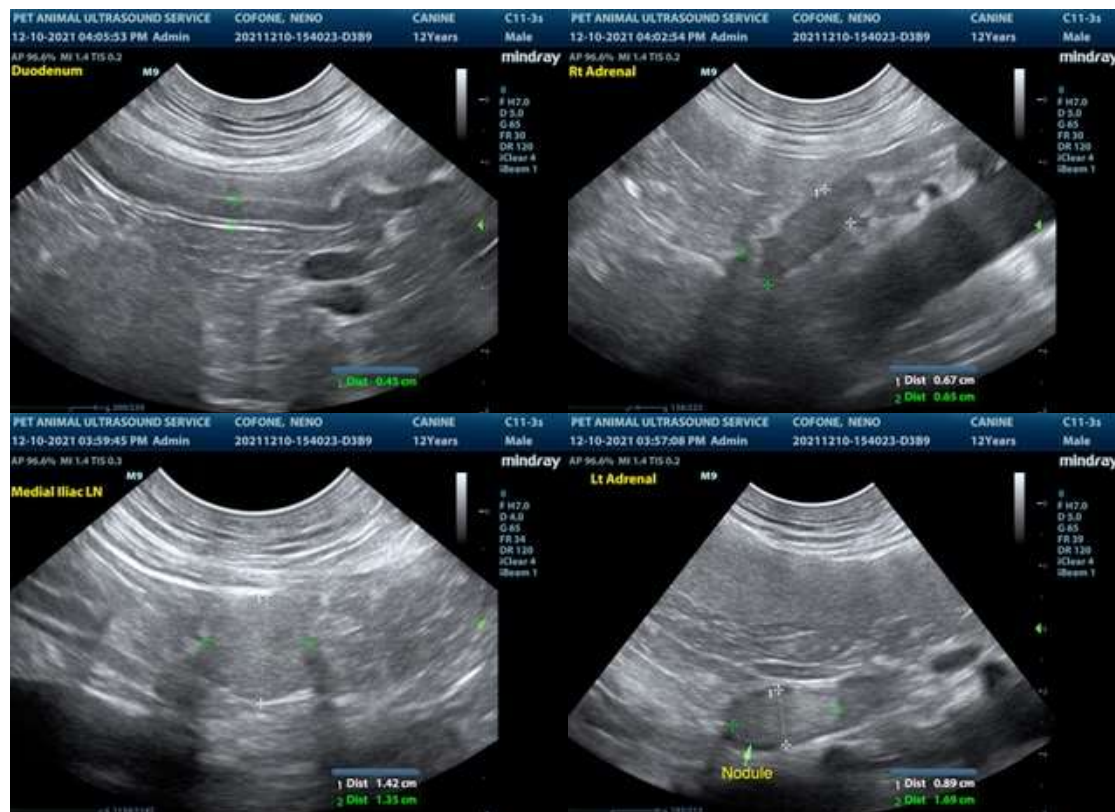
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**WEIGHT**

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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)  
 info@SonoPath.com