



PATIENT PRESENTING CLINICAL SIGNS

Magnus Clark Currently asymptomatic, active 12 y/o. Elevated ALT (258) and ALP (636) on pre-operative (dental) bloodwork. Syncopal episode in Oct, 2022. Blood pressure normal and in-house ultrasound at that time: NSF. Bile acids testing WNL. *Sedated with torb/dexdomitor

SPECIES

Canine

BREED

Cairn Terrier

SEX

MN

AGE

12yr

WEIGHT

21lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

VCA Hanson AH

REFERRING VET

Dr. Jewett

INVOICE

12683ag

DATE

1/16/2023

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 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.

Normal size and margination were 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 4.8 cm in length. The right kidney measured 4.7 cm in length.

The area of the aortic trifurcation was free of pathology.

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

Adrenal Glands

The left adrenal gland was normal in size. The right adrenal gland was borderline prominent in size based on caudal pole width and body weight. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.38 cm width in the cranial pole and 0.51 cm width in the caudal pole. The right adrenal gland measured 0.53 cm width in the cranial pole and 0.58 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. Multifocal, well-defined, symmetrical, hyperechoic nodules were present throughout the cranial to caudal parenchyma, an example measuring 1.0 cm in diameter. 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 hyperechoic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver/Gallbladder

The liver was enlarged and maintained symmetrical capsule contour. Generalized increased parenchyma echogenicity with moderate coarse echotexture was present along with evidence of parenchymal remodeling. Discrete hypoechoic nodular changes were present. Evidence of hepatic congestion secondary to sedation was noted. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild echogenic non-organized debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.

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
 Magnus Clark
 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.

SPECIES *Pancreas*

Canine
 The pancreas base and right pancreatic limb exhibited mild prominent size with subtle capsule asymmetry. Mildly hypoechoic to non-homogenous parenchyma was present.

BREED *Free Abdomen*

Cairn Terrier
 No omental masses, or overt lymphadenopathy was present.

SEX
 MN
 A small pocket of scant anechoic non-specific peritoneal effusion was present in the right cranial abdomen between the caudal caudate liver lobe and cranial right kidney. The effusion may potentially be physiologic assuming normal ALB level. No overt evidence of peritonitis.

ULTRASONOGRAPHIC FINDINGS

- AGE**
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WEIGHT
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- Hepatopathy exhibiting non-homogenous discretely nodular parenchyma-vacuolar hepatopathy/metabolic hepatopathy, inflammatory/immune mediated disease, hematopoiesis, hyperplasia, non-obstructive cholestasis, fibrosis or other hepatopathy possible. Neoplastic criteria considered less likely.
 - Gallbladder debris-not consistent with mucocele criteria
 - Mildly prominent to non-homogenous pancreas
 - Age related renal changes
 - Borderline prominent right adrenal gland

INTERPRETED BY *Secondary*

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

- Benign splenic nodules-consistent with benign myelolipomas, hyperplasia, potential for emerging mineralization

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

Assuming normal clotting status and using a 25g needle, a hepatic FNA for screening cytology is warranted for further assessment of the liver, primarily to assess for/identify inflammatory cell type or for evidence of hepatic antigenic stimulation.

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The pancreas was non-specific and may indicate patient/ age variant, remodeling owing to previous inflammatory episode or mild to chronic pancreatitis possible. This potential may be considered if there is evidence of cranial abdominal or subxiphoid discomfort on palpation. Correlation with a spec cPL recommended if clinically indicated.

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Hepatosupportive medications such as Denamarin and Ursodiol may prove beneficial. Cushing's syndrome is considered less likely given the lack or reported clinical signs.

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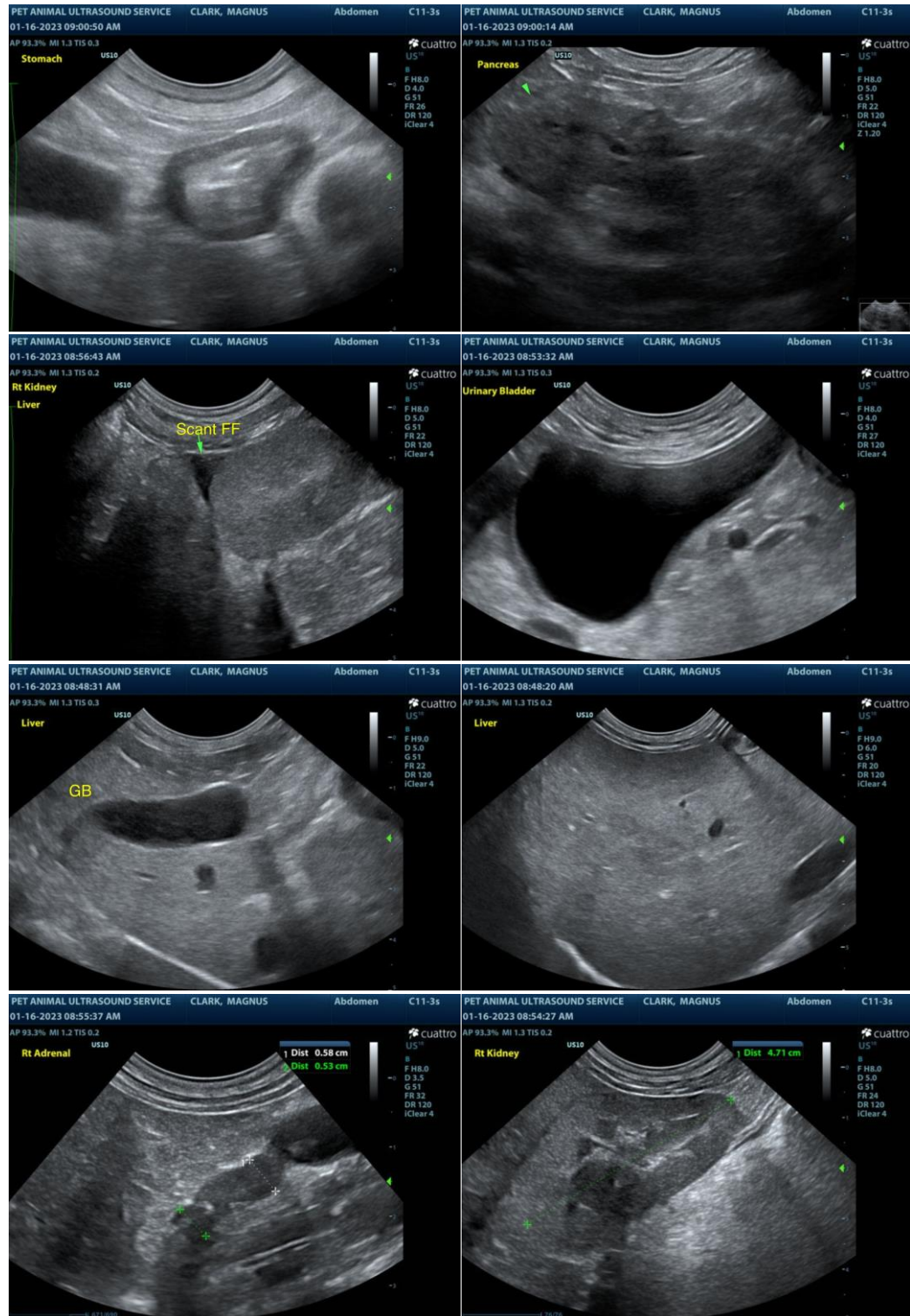
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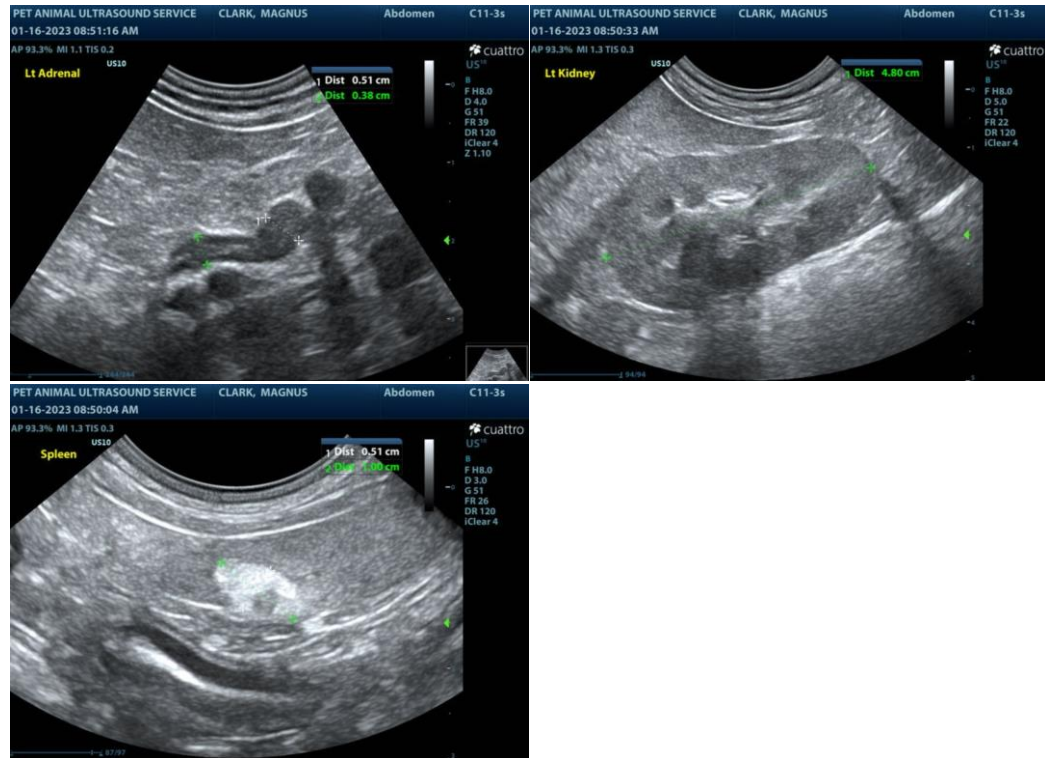
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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