



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Bruin O'Conaire
 Preoperative bloodwork 7/21/22 shows hypoalbuminemia, lymphocytosis, monocytosis. Pre and post bile acids 10/13/22 both results >420 Umol/L. Non-clinical. Incidental finding.

SPECIES Current medications: 1) Fluoxetine 10 mg SID started 11/9/22 for acral lick granuloma 2) SimparicaTrio monthly.
Canine ? portosystemic shunt

BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Golden Retriever *Urinary System*

SEX The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with mild dependent luminal mineral. Concurrent focal non-obstructive mineral noted in the prostatic urethra. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

AGE The bilateral kidneys appeared to be mildly swollen to enlarged in appearance. 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. Pinpoint medullary and peri pelvic mineral was observed bilaterally. The left kidney measured 7.8 cm in length. The right kidney measured 8.2 cm in length.

WEIGHT 56.6lb
 The area of the aortic trifurcation was free of pathology.

INTERPRETED BY The prostate was of expected size and presentation for a young intact male canine without overt pathology measuring 2.7 cm in diameter.

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

Adrenal Glands

IMAGING PERFORMED BY

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.47 cm width at the caudal pole and 0.38 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.45 cm width at the caudal pole and 0.41 cm width at the cranial pole.

Pamela Harrigan, RDCS

HOSPITAL NAME *Spleen*

VCA Whitman Animal Hospital

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.

REFERRING VET

Dr. Barrett

Liver

INVOICE 12225ag
 The liver was subnormal in size with symmetrical capsule contour and overall normal parenchyma echogenicity exhibiting mild coarse echotexture. A large anomalous vessel noted subjectively caudal to potential caudomedial to the level of the gallbladder measuring ~ 1.4 cm - 1.5 cm in diameter was present. The visualized portal vein exhibited potential for mild decreased volume compared to the caudal vena cava although this interpretation is subjective.

DATE

11/21/2022

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.



PATIENT *Gastrointestinal*

Bruin O'Conaire 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.

SPECIES 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.

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

BREED *Pancreas*

Golden Retriever 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 *Free Abdomen*

MI No omental masses, overt lymphadenopathy or peritoneal effusion was present.

AGE **ULTRASONOGRAPHIC FINDINGS**

- 11mo
- Mild dependent urinary bladder and non-obstructive prostatic urethral mineral
 - Bilateral mildly enlarged kidneys with pinpoint medullary and peri pelvic mineral
 - Subnormal liver size
 - Intrahepatic shunt-suspect central divisional

WEIGHT

56.6lb

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A CT with contrast is recommended for further clarification of the intrahepatic shunt as well as potential surgical planning. Empirical therapy for intrahepatic shunt which may include some or all of the following protocol pending additional diagnostics and consultation. A urine C/S on a sterile urine sample to assess for or rule out underlying UTI is recommended if clinically indicated.

INTERPRETED BY

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

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Royal Canin Hepatic Support diet or Hills L/D, Metronidazole (7.5 mg/kg PO bid) over the next 14 days, Lactulose (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a high-quality protein supplement of minor amount of yogurt or cheddar cheese. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. SAME and nutraceuticals as needed. **Ursodiol (10-15 mg/kg p.o. q24h)** can be considered as hepatoprotection and to enhance bile flow. **Zinc** serum level keep between 200–500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.

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SPECIES

Canine

BREED

Golden Retriever

SEX

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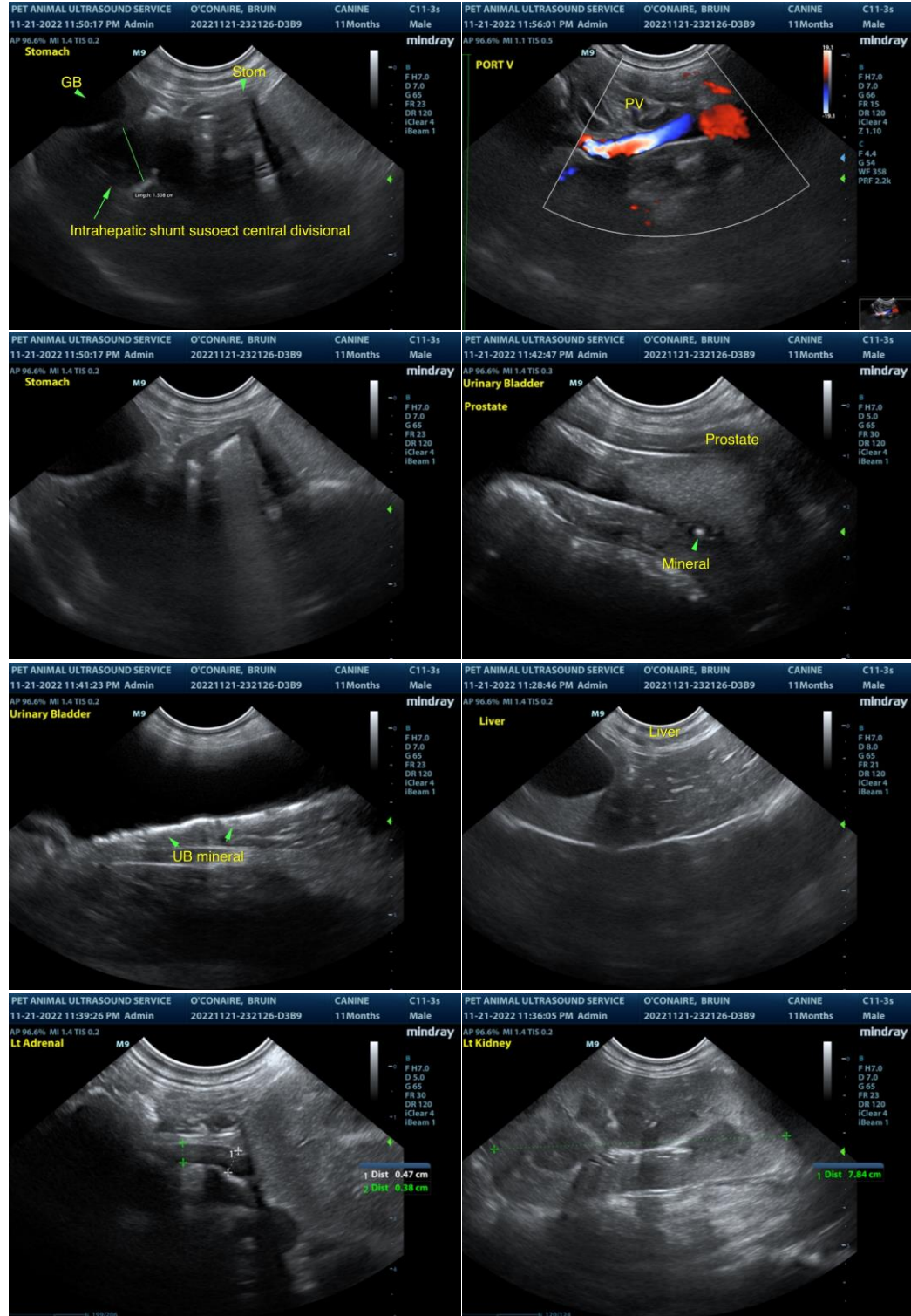
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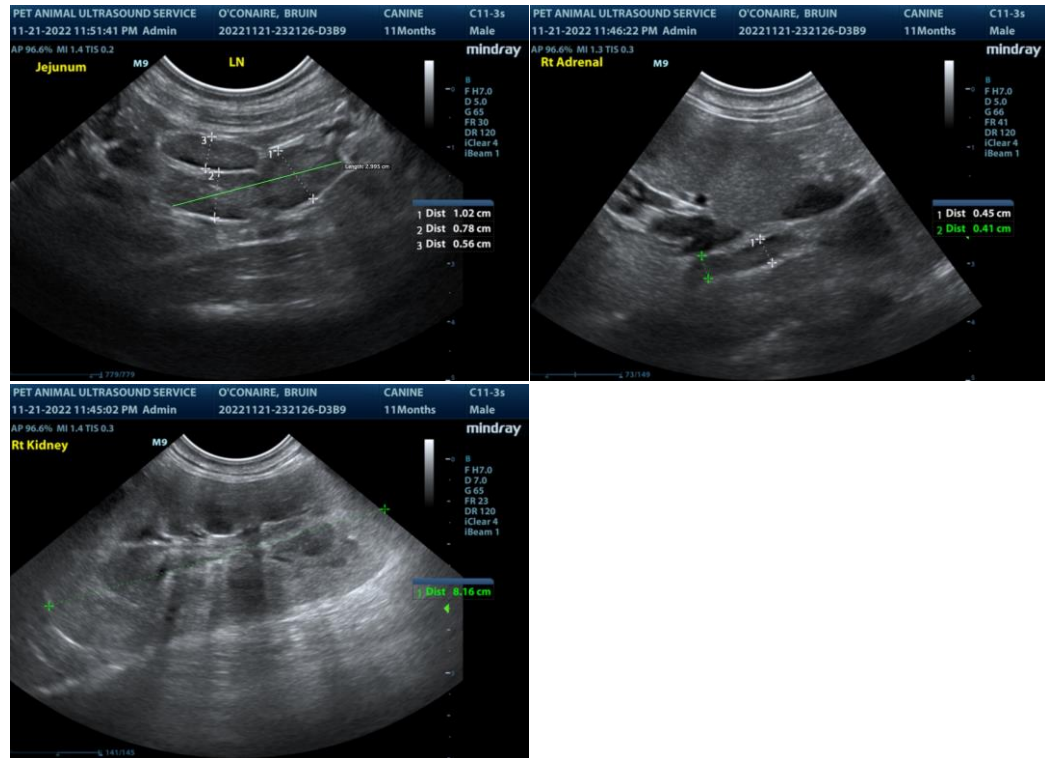
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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