SonoPath
Clinical Sonography & Telecytology
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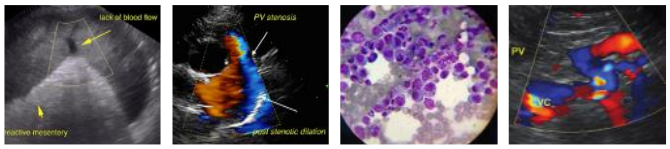

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Cooper Hansen

SPECIES

Canine

BREED

Yorkie

SEX

MN

AGE

8yr

WEIGHT

5.5kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Goeres

HOSPITAL NAME

Kelowna Veterinary Hospital

REFERRING VET

Dr. Chhetri

INVOICE

13270ag

DATE

03/23/2023

PRESENTING CLINICAL SIGNS

Historical undiagnosed chronic intermittent GI Issue. Historical suspicion of collapsing trachea. Historical report of polydipsia. Dental procedure and lumpectomy in December 2022. PU/PD work up unremarkable. Presented for bloated abdomen and ADR, Clinically looks unremarkable except tartar build up in teeth and slightly enlarged abdomen (Normal vs pathological). TPR-OK. Owner reports PD but not PU. CBC/Chemistry unremarkable except for Increased ALT/ALP/Lipase and BUN. Urinalysis ok. CBC - unremarkable but no stress leukogram. SNAP CPL abnormal. Radiograph mild hepatomegaly and splenomegaly, thickened loops of intestine. Hips - Radiographic evidence of DJD? AFAST - DH view, CC view, SR view, HRU View - no fluid detected. DDX - Pancreatitis vs neoplasia vs enteropathy vs hyperadrenocorticism

Current tx: Buprenorphine @ 0.01mg q8h OTM, Gabapentin @10mg/kg q8h, RC GI low fat cans

Abnormal PE/Chem/CBC/UA Results: mildly distended abdomen

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 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. Intermittent small cortical cysts were present. No evidence of pelvic dilation was present. The left kidney measured 3.8 cm in length. The right kidney measured 4.3 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

Bilateral mildly prominent adrenal glands based on caudal pole width measurement and body weight with symmetrical contour and homogenous parenchyma. No adrenal tumors. The left adrenal gland measured 0.67 cm width at the caudal pole and 0.64 cm width at the cranial pole. The right adrenal gland measured 0.67 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/Gallbladder

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 anechoic luminal content and mild echogenic non-organized debris. The cystic and common bile ducts were normal.

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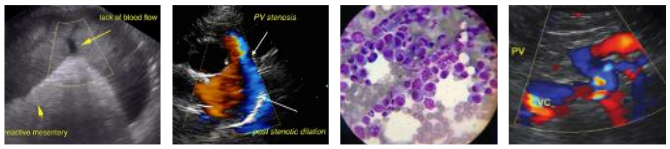

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Gastrointestinal

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.

The small intestine presented intact wall layering with generalized prominent mucosa layer. Discrete areas of increased mucosal echogenicity to mucosal fogging present. No evidence of loss of intestinal wall layering or intestinal masses. 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 semi formed feces in lumen.

Pancreas

The parenchyma of the pancreas was hyperechoic to adjacent omental fat with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if there is a previous history of pancreatitis. No overt signs of pancreatic neoplasia.

Free Abdomen

No omental masses or overt lymphadenopathy was present.

Intermittent scant pocket of peri intestinal/peritoneal free fluid was present.

ULTRASONOGRAPHIC FINDINGS

- Chronic renal changes with small cortical cysts.
- Benign hepatopathy.
- Minor gallbladder debris (non-mucocele)
- Inflammatory enteropathy pattern-suspect IBD.
- Chronic pancreatitis/pancreatic fibrosis.
- Non-specific mildly prominent adrenal glands.
- Intermittent scant pocket of peritoneal free fluid.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Intestinal biopsies would be required for a definitive diagnosis. Empirical therapy for suspect IBD to include a limited antigen or hydrolyzed diet trial with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Proviable or Visbiome) and as needed gastrointestinal support with assessment of clinical response is warranted. Some contribution to the GI signs secondary to chronic pancreatitis suspected. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

Given the breed, monitoring of ALB level is suggested. Recheck adrenal testing could be considered if suspicion of Cushing's syndrome. Hepatosupportive medications such as Denamarin and Ursodiol are recommended.

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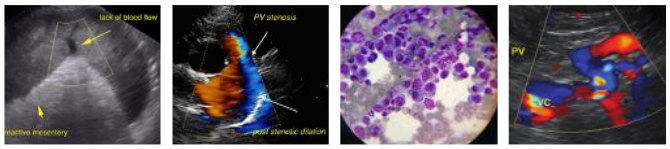

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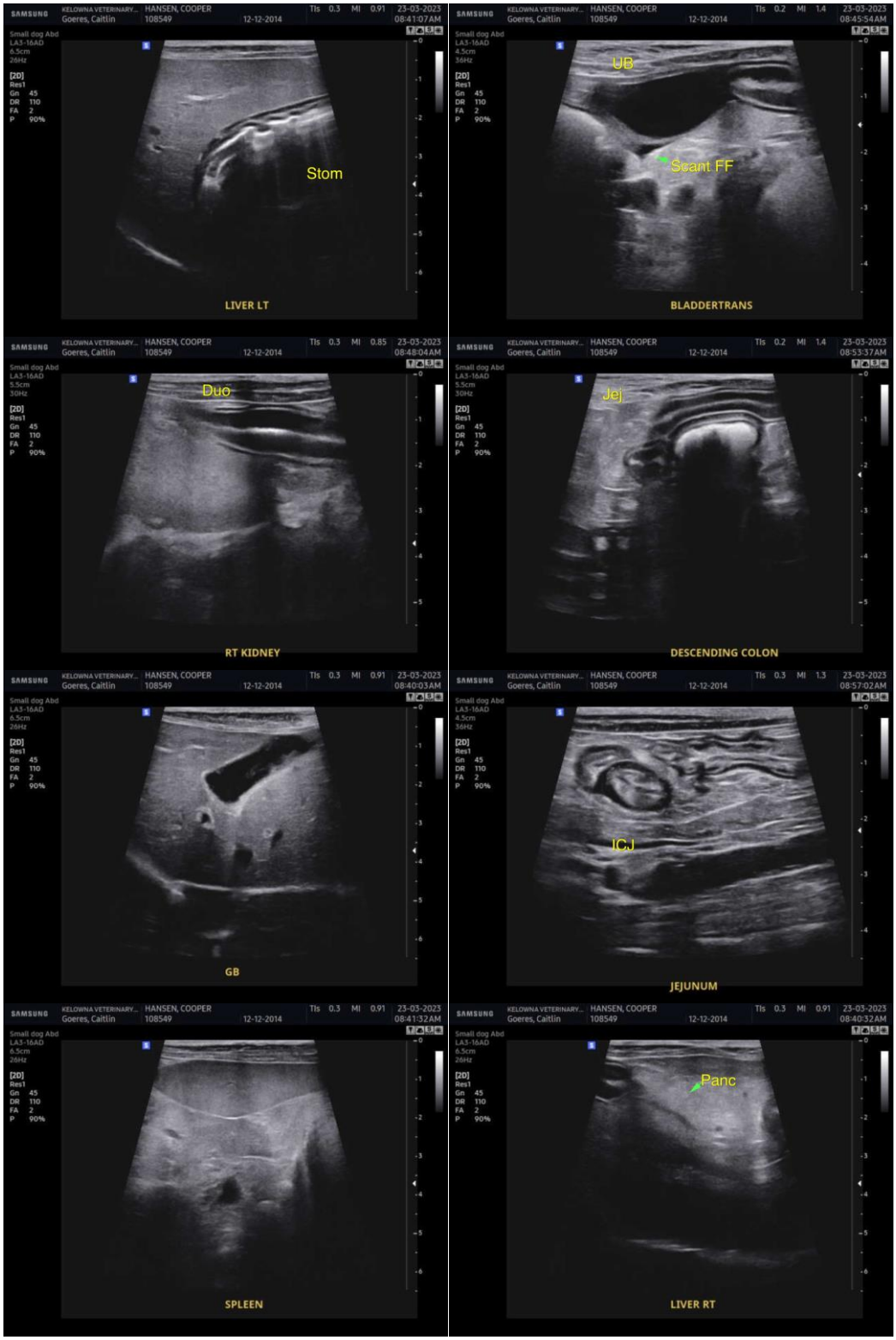

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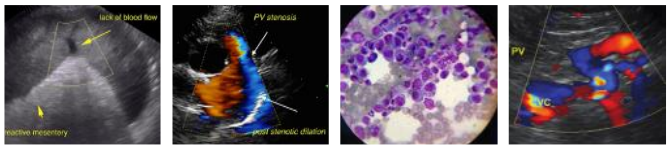

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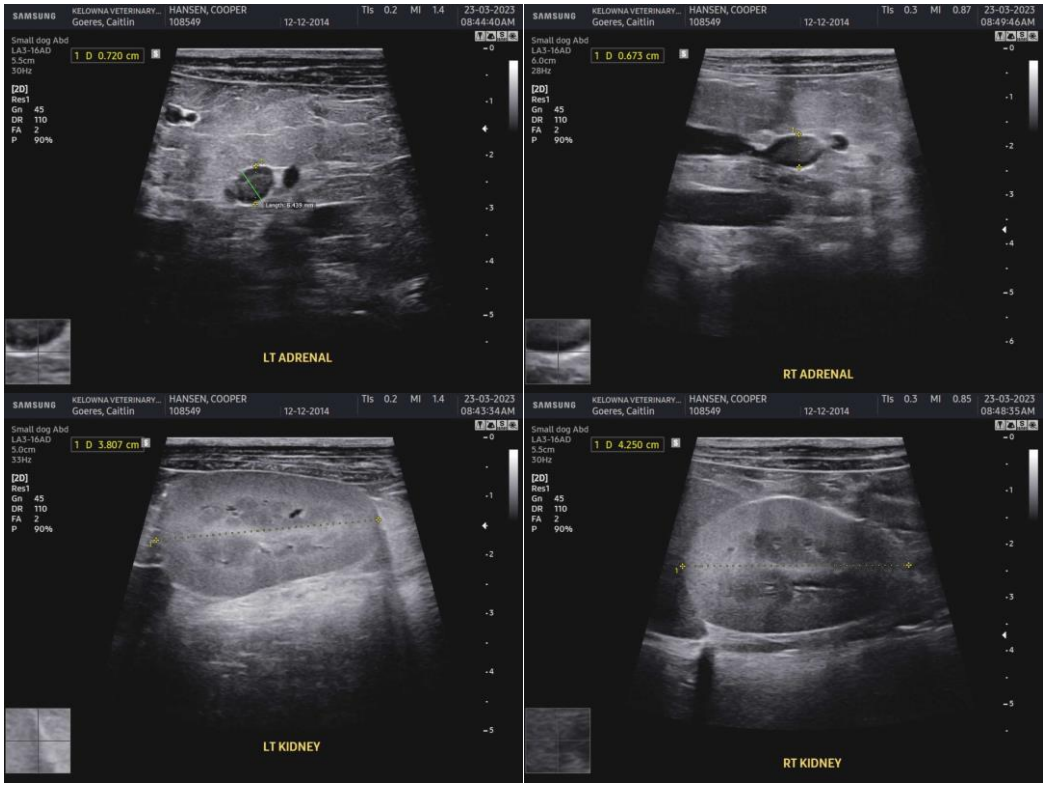

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
mac.daniel@sonopath.com