**PATIENT**

Randy Zeemer

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

10 Years

WEIGHT

8.8 Pounds

INTERPRETED BYR. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)**IMAGING
PERFORMED BY**

Rachel Runnells, RVT

HOSPITAL NAMESVS Imaging Kansas
City**REFERRING VET**

Dr. Jonathon Renfro

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35373

DATE

2/1/22

PRESENTING CLINICAL SIGNS

Not eating well for 2 weeks, lethargic. Lost 3 lbs since last year. Hospitalized right now. While hospitalized, vomited coffee ground looking material.

Abnormal PE/Chem/CBC/UA Results: CBC:WBC 43.96 (5.5-19.5), MONO 4.23 (0-1.5), NEU 38.2 (2.5-14.0). Chem: ALT 338 (20-100), TBIL 2.1 (0.1-0.6), GLU 478 (70-150), K+ 2.9 (3.7-5.8). Bloodwork ran at beginning of day. Glucose with AlphaTrak 10 min after scanning (around 4:15p) was 683.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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.

The area of the aortic trifurcation was free of pathology.

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Focal cortical infarcts noted in the right kidney. Focal areas of non-obstructive medullary mineral noted in both kidneys. The left kidney measured 4.2 cm. The right kidney measured 4.3 cm.

Adrenal Glands

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.30 cm. The left adrenal gland was mildly prominent in size, yet not consistent with neoplastic criteria, measuring 0.46 cm in width.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

Liver

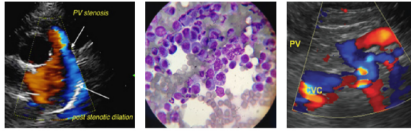
The liver presented increased in size. The parenchyma of the liver was subjectively increased in echogenicity compared to the spleen and renal cortices. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact yet subjective mild prominent wall layering. The stomach contained a mild to moderate amount of retained anechoic fluid. No evidence of retained ingesta, foreign material or mechanical pyloric outflow obstruction. Gastric body wall measured 0.30 cm.

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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. Duodenum wall measured 0.25 cm. Jejunum wall measured 0.23 cm. Ileocolic wall measured 0.36 cm.

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

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

A solitary, mildly prominent to enlarged cranial mesenteric lymph node was present, likely indicative of lymphoid hyperplasia or minor reactive lymphadenitis. The lymph node was essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5).

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ULTRASONOGRAPHIC FINDINGS

- Chronic renal changes exhibiting non-obstructive mild medullary mineral and right kidney cortical infarcts
- Hepatomegaly with generalized parenchyma hyperechogenicity – reactive/metabolic/vacuolar (diabetic) hepatopathy, non-specific inflammatory parenchymal or hepatobiliary process, round cell neoplasia possible.
- Hypomotile stomach, sonographically unremarkable small bowel
- Mildly prominent left adrenal gland – non-specific.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Potential for mild generalized gastritis and secondary gastric stasis. Overt evidence of neoplastic or infiltrative gastric mural disease was not definitively evident and considered less likely, yet cannot be definitively excluded.

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Assuming normal clotting status, ultrasound guided FNA of the liver using 25-gauge needle warranted for screening cytology. Vitamin K administration recommended if hepatic FNA is elected. Fructosamine level warranted. GI panel to include PLI, TLI, cobalamin and folate to assess for occult low-grade to chronic pancreatitis or small intestinal disease (both of which may present sonographically normal) is recommended. Urine culture and sensitivity on sterile urine sample suggested given potential for glucosuria.

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Empirically, medical therapy for potential diabetes with as-needed gastrointestinal support would be appropriate. If persistent or progressive hypokalemia, serum aldosterone levels or sonographic monitoring of the left adrenal gland for evidence of progressive increased size recommended. However, the electrolyte abnormalities may be secondary to diabetes or decreased food intake. CBC pathology review may be considered given the elevated white blood cell count.

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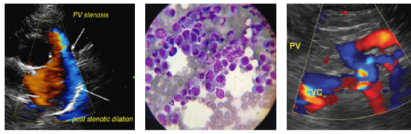
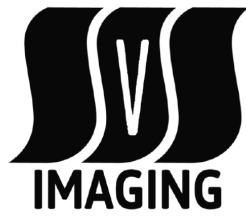
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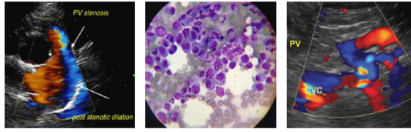
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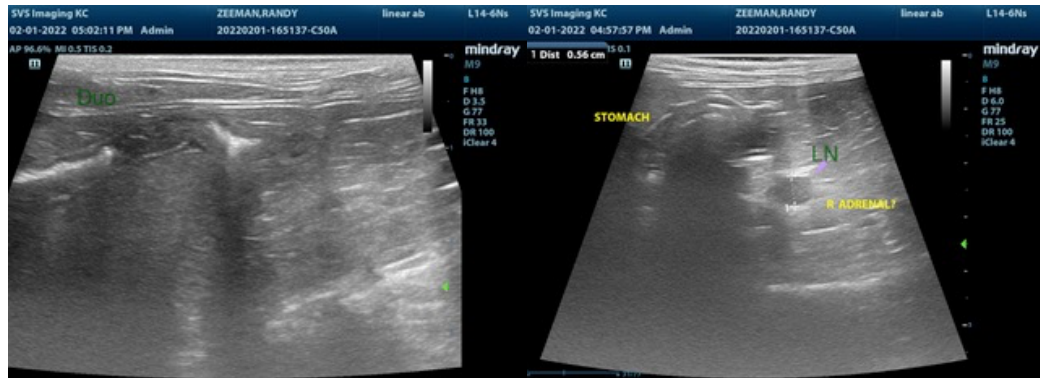
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@SonoPath.com