IMAGING PERFORMED BY

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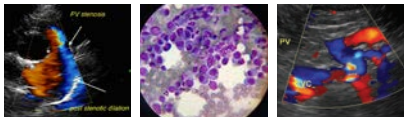

SonoPath
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DATE

7/26/22

PATIENT

Snowflake Gagne

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

11/14/07

WEIGHT

2.8 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Pleasantville AH

REFERRING VET

Dr. Gounaris

INVOICE

39810

PRESENTING CLINICAL SIGNS

Presented 7/23 for two week history of lethargy and decreasing appetite. By time of appointment is hardly eating at all. Intermittent vomiting. On examination, MM slightly pale, tacky, vitals WNL, patient QAR. BW results reveal moderate-marked azotemia and liver enzyme elevations, mild anemia/leukocytosis. Borderline hypoglycemic. Treated as outpatient 7/23 and 7/25 w/ subcutaneous fluids and ondansetron. Owner reported patient was somewhat better/ate after treatment

Current Medications: N/A at time of writing report (gave a few doses of ondansetron).
Lab Results: 7/23 - ALP ~1400, ALT 463, tBil 0.7; BUN 90, creat 3.9, P 6.7, BG 62, HCT 32%, WBC 20k (neutrophilia 18k).
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (2.3 cm) with mild pyelectasia at 0.13 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (2.74 cm) with mild pyelectasia at 0.23 cm. Overall echogenicity is normal with decreased corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.49 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.31 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal/borderline small in size, and echogenicity with smooth peripheral margins. The parenchyma is mildly heterogeneous. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is significantly distended. Some of the areas of the wall appear mildly thickened with adherent hyperechoic debris. This debris is primarily non-organized. There is no evidence of bile duct dilation or surrounding inflammation.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of 0.36 cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. While the gastric wall measures at a normal thickness and layering appears intact, the gastric wall appears subjectively thickened for a patient this small.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

PRIMARY FINDINGS

- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Borderline small, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Distended gallbladder with a large volume of hyperechoic intraluminal debris – While no surrounding inflammation is visualized, underlying cholecystitis is possible.

- Subjectively thickened gastric wall – The stomach wall thickening could be consistent with inflammation, edema, infiltrative neoplasia, imaging artifact due to rugal folds, other.

SECONDARY FINDINGS

- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

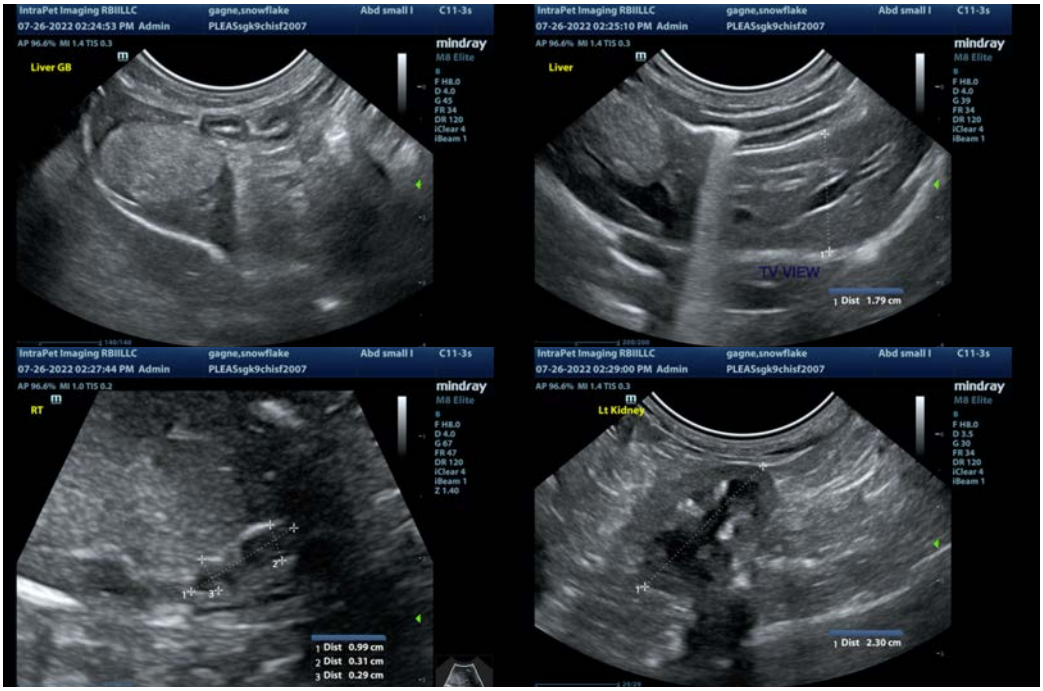
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

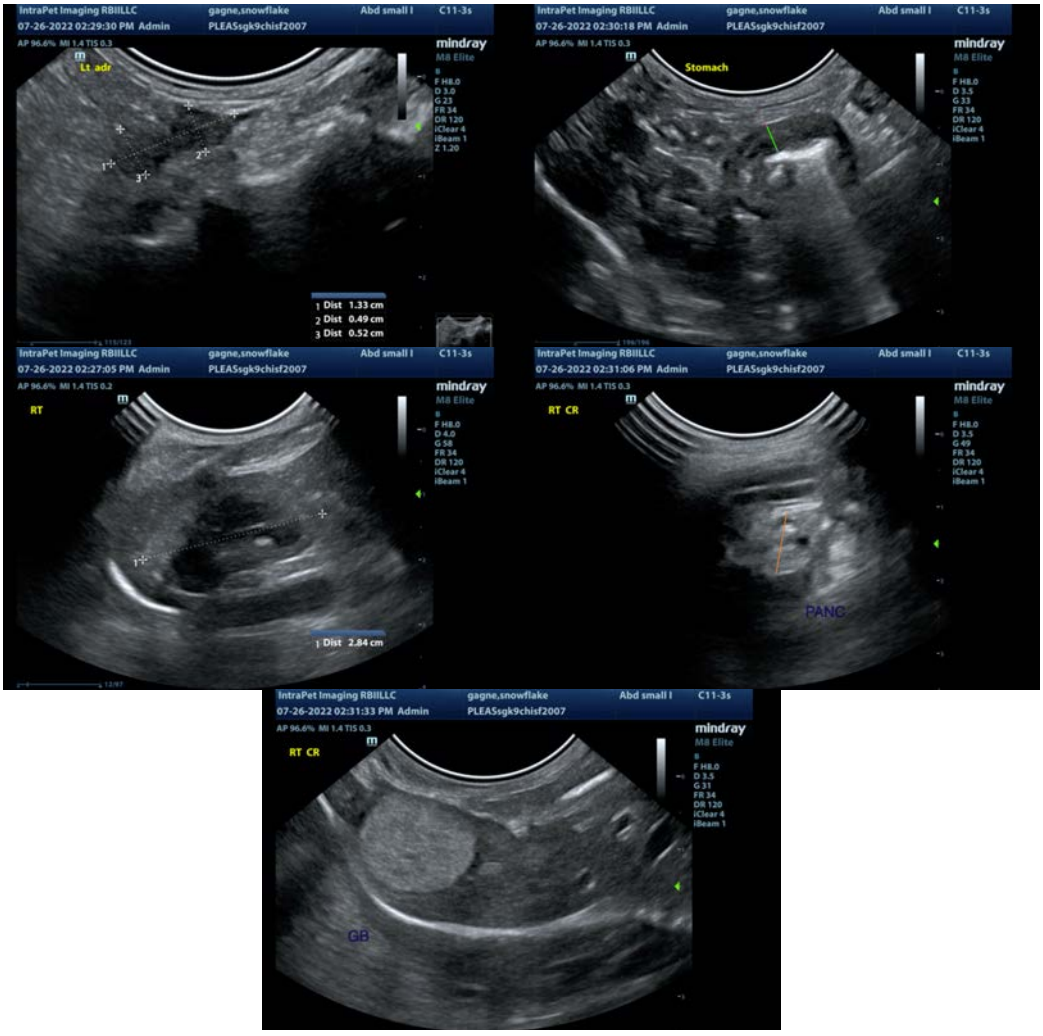
The changes observed in the kidneys are most consistent with chronic progressive renal disease. Recommend a blood pressure evaluation, urinalysis and culture.

The liver appears subjectively small and slightly heterogeneous. These changes could be consistent with primary liver disease, but additionally, the gallbladder is large and distended with hyperechoic debris. There is no evidence of a mucocele, and no surrounding inflammation, so it is somewhat difficult to determine if this is most consistent with a primary hepatopathy, or if the gallbladder is playing a major role as well. Recommend treatment for cholecystitis with Ursodiol and antibiotics, and close continued monitoring of the gallbladder. Additionally, if clotting times are appropriate, consider a fine needle aspirate of the liver. If symptoms persist, surgical evaluation of the gallbladder with liver biopsy may be necessary. Additionally, screening for Leptospirosis is recommended.

The spleen is somewhat prominent, but does not appear overtly inflamed, and the gastric wall appears prominent. This could be consistent with uremic gastritis, prominent rugal folding, etc. Recommend continued monitoring and treatment for gastritis.

The hypoglycemia observed could be secondary to liver disease, or could be due to the anorexia reported in such a small patient. Consider diuresis, 3-view chest radiographs, blood pressure evaluation, and IV therapy for pyelonephritis and cholecystitis with close continued monitoring and frequent feeding (possibly syringe feeding if not eating well?).





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.

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