

**DATE**

8/22/22

PRESENTING CLINICAL SIGNS

History: Last week- on/off vomiting; this week- lethargy, decreased appetite and continued vomiting being treating for ear infection- owner did not bring in medication went to ACC- bloodwork showed azotemia - BUN 106; Cre- 4.2 Ca- 12.5; Phos- 11.4- rest of the chemistry- normal no lytes perform; no CBC, No UA lateral xray- deviated of the colon ventrally- increased spacing in the retroperitoneal space; decreased detail in the caudal abdomen- wear the bladder and colon approach the pelvis; no FB; referred for continued care recovery from a soft tissue injury no c/s/d

PATIENT

Hallie McKendrick

SPECIES

Canine

BREED

Mixed Breed

SEX

Spayed Female

AGE

4/10/12

WEIGHT

29.1 Pounds

Current Medications: Benazepril, Entyce, Amoxicillin, Cerenia, Omeprazole, Protonix.

Lab Results: See attached.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal is size (4.66 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed. Mild pyelectasia is noted.

Right kidney is normal is size (4.69 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed. Mild pyelectasia is noted. There is cyst in the caudal pole of the right kidney.

INTERPRETED BYBeth Johnson, DVM
DACVIM**Adrenal Glands**

Left adrenal gland is normal in size (1.9 cm long x 0.55 at cranial pole and 0.67 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (2.1 cm long x 0.65 at cranial pole and 0.72 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

HOSPITAL NAMEAnimal Emergency
Hospital**REFERRING VET**

Dr. Willer

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

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Liver

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Hyperechoic mucosal fogging or speckling is noted. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas is diffusely prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Enhanced hyperechoic ill-defined surrounding fat is noted. The vascularity appears maintained based on doppler flow in these images.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Acute pancreatitis
- Mucosal speckling – Mucosal speckling is often present with inflammatory bowel disease (IBD). It is not specific for type or severity of disease. Mild speckling change can occur as a normal patient variant in the post-prandial state.
- Mild bilateral pyelectasia consistent with fluid therapy, if this patient is receiving fluids or secondary to PU/PD or chronic infection can't be ruled out.

Secondary Findings

- A small right renal cortical cyst
- Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

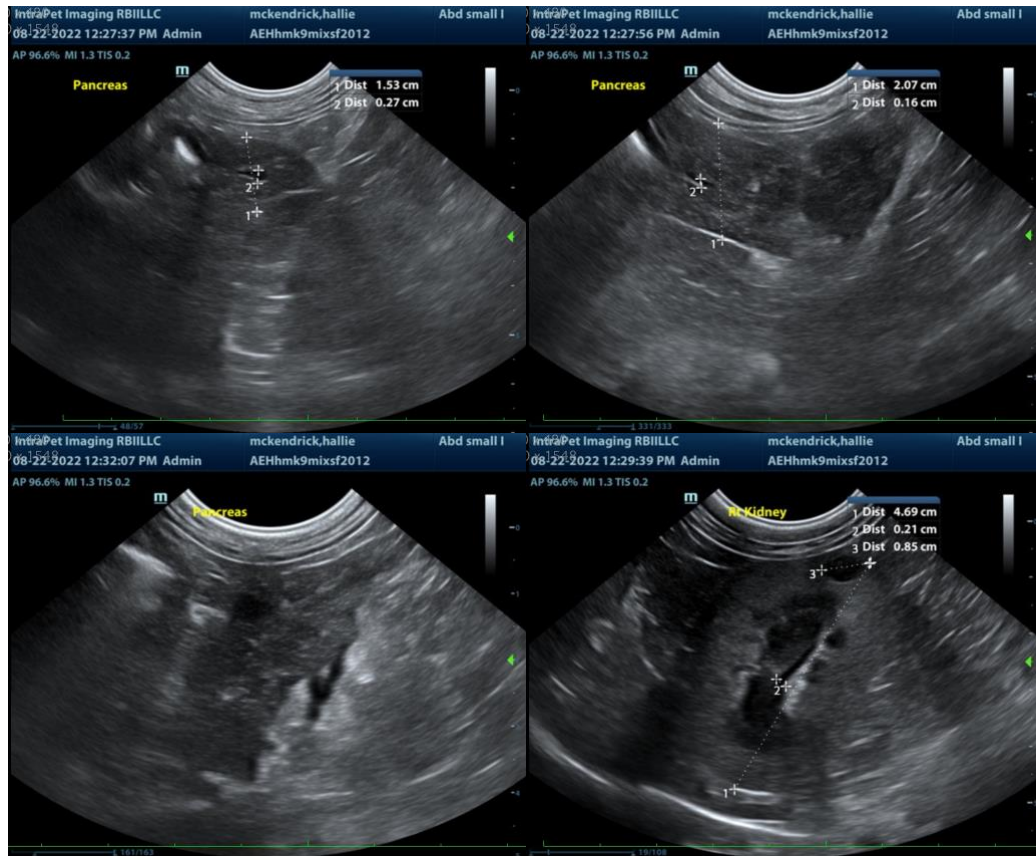
Given this patient's evidence of pancreatitis, as well as the mucosal speckling in the bowel, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended.

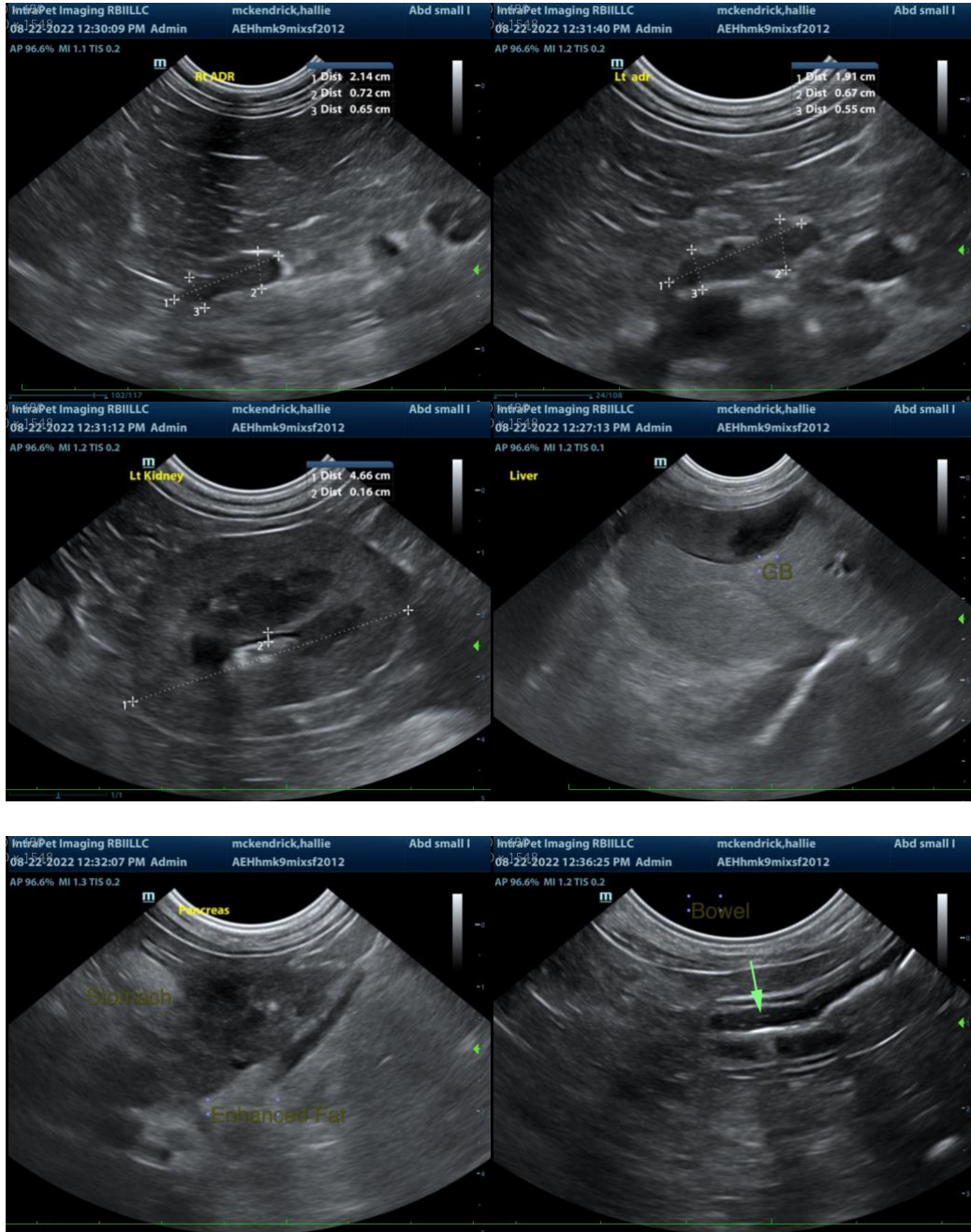
for further evaluation of GI and pancreatic function.

The clinical signs in this patient combined with the reported radiographic changes are likely secondary to the pancreatitis, however, given the reported kidney disease, a urine culture can be recommended to rule out an occult urinary tract infection. Testing for Leptospirosis is recommended, if not recently evaluated. If the urine sediment is quiet and there is protein present, a urine protein to creatinine ratio is recommended to quantify any proteinuria that may be present.

In the meantime, medical management of pancreatitis with anti-emetics, gastroprotectants, appetite stimulants or nutritional support as needed, pain management, broad spectrum antibiotics, and fluid therapy is recommended. If possible, a fresh frozen plasma transfusion and hyperbaric oxygen therapy (HBOT) could be beneficial. Monitoring of the pancreas with power doppler is recommended to identify possible necrosis as well as other potential sequelae such as abscesses, etc.

Following resolution of pancreatitis, reassessment of the kidneys is recommended with chronic therapy, addressing any hypertension, proteinuria, azotemia, etc. that may remain.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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