

**DATE PRESENTING CLINICAL SIGNS**

7/12/22

Rocky is a 13 y/o MN Doberman pinscher - was boarded - not eating regularly - bloody diarrhea at boarding - ate yesterday after getting home from boarding - had a regular stool - did not eat this morning - previous changes in liver values and kidney values Medications: - Gabapentin 100 mg for arthritis - Pimbo 5mg AM 1/2 1/4 PM - enalapril 2.5 mg PO BID, previous high blood pressure - carprofen evening for arthritis - CBD oil PRN - Glucosamine not on for a week

PATIENT

Rocky Gueydan

SPECIES

Canine

Current Medications: Amoxicillin, Enalapril, Vetmedin, Omeprazole, Cerenia, Ondansetron, Entyce.

Lab Results: 7/11/22: BUN- 111 (n- 7-27); Creat- 3.8 (n- 0.5-1.8). 7/10/22: BUN- 192; Creat- 5.1. 7/9/22: BUN- 224; Creat- 8.1

UA- Suspect cocci, otherwise inactive.

BREED

Miniature Pinscher

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SEX

Neutered Male

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is mildly to moderately distended with anechoic contents. Apical urinary bladder wall is diffusely thick (0.33 cm). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

AGE

8/1/08

Prostate (neutered) is normal in size, echotexture and echogenicity for a neutered male.

WEIGHT

10 Pounds

The right kidney is normal in size (4.6 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of mineral or infarcts observed. Pyelectasia is noted. Small cortical cysts noted.

INTERPRETED BYBeth Johnson, DVM
DACVIM

The left kidney is normal in size (4.18 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of mineral or infarcts observed. Pyelectasia is noted. Small cortical cysts noted.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

Adrenal Glands

The right adrenal gland is normal in size (1.87 cm long x 0.87 cm at the cranial pole and 0.62 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAMEAnimal Emergency
Hospital

The left adrenal gland is normal in size (2.6 cm long x 0.71 cm at the cranial pole and 0.65 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Thompson

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). Multifocal well-demarcated hyperechoic homogenous nodules are present. Splenic vasculature appears normal.

INVOICE

39418

Liver

The 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.

The 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 stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) 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 or foreign material.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

In the caudal abdomen, cranial to the urinary bladder, there is a 2-3 cm diameter, poorly differentiated, heterogeneous, primarily hypoechoic but partially mineralized structure/mass. Color flow to indicate vascularity is not appreciated.

PRIMARY FINDINGS

- Caudal abdominal structure described is adjacent to bowel, and association with bowel cannot be ruled out. However, given the lack of apparent vascularity, other differentials include a mesenteric or omental abscess or granuloma and/or even lymph node or infiltrative neoplasia with poor blood flow.
- 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.

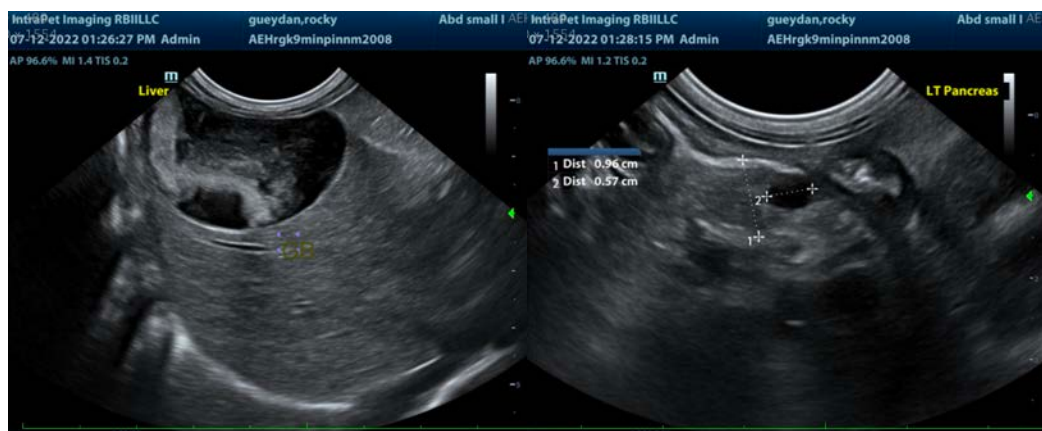
SECONDARY FINDINGS

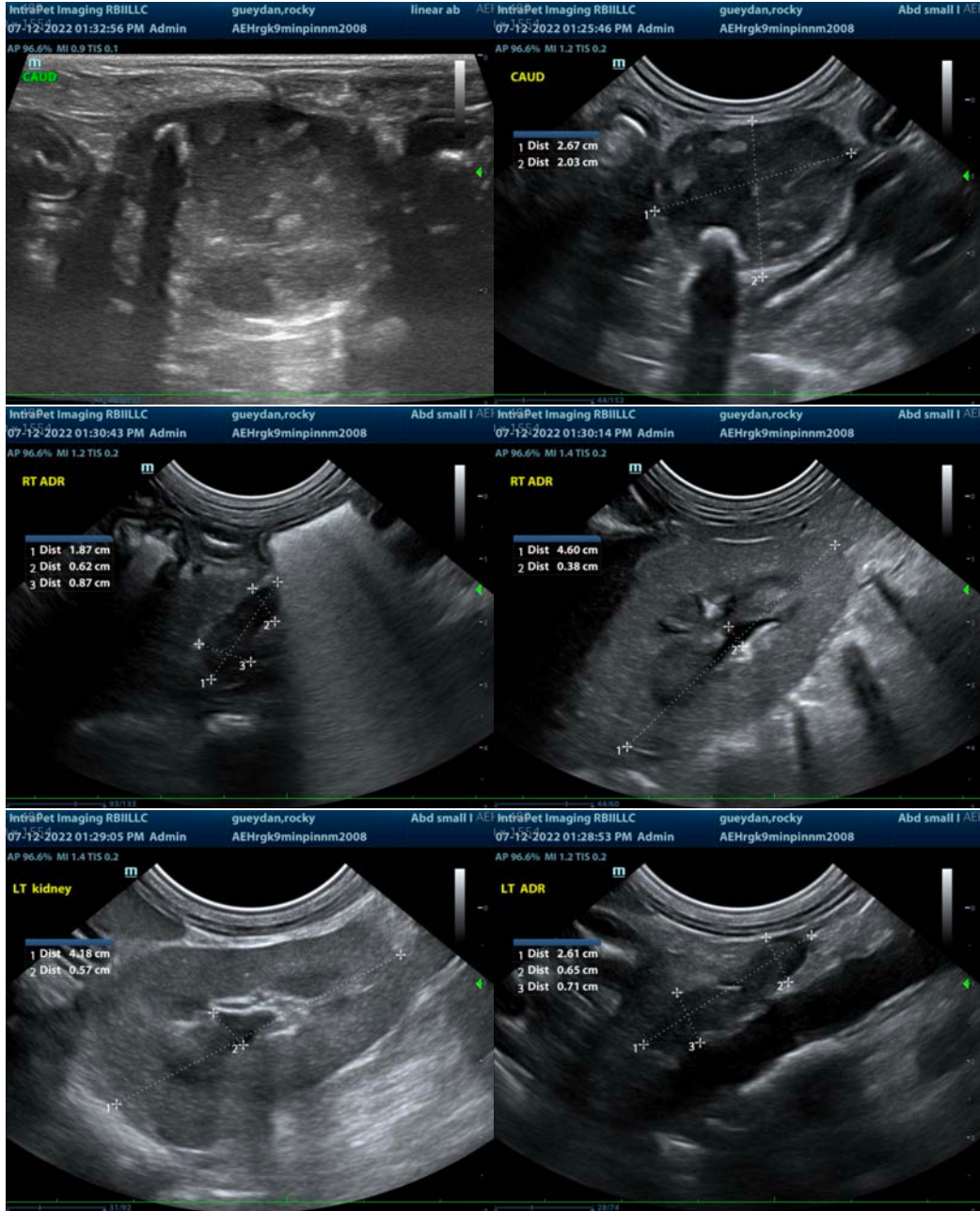
- Chronic Cystitis – Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely given the location and diffuse nature of the changes.
- Hyperechoic splenic nodules – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are less likely.

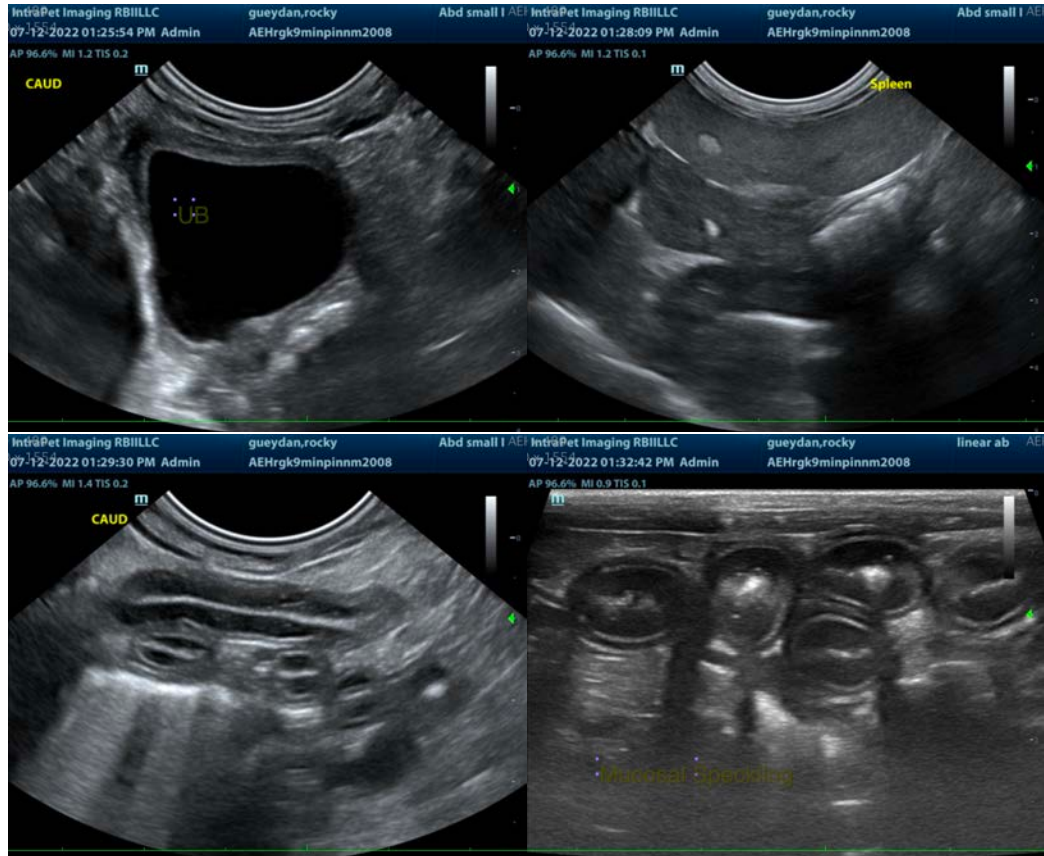
- Age related kidney changes
- Gallbladder debris – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs 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.
- Pancreatic age-related remodeling – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the patient's reported gastrointestinal signs combined with the gastrointestinal changes in the ultrasound, further evaluation of the GI tract is recommended with a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory for further evaluation of GI and pancreatic function.
- A baseline cortisol could be considered, given the occurrence of these clinical signs during a potentially stressful situation such as boarding. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.
- Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.
- While of unknown definitive tissue origin and unknown contribution to patient's clinical signs, the caudal abdominal structure/mass is considered significant. Further evaluation options include a fine needle aspirate of the mass for cytology +/- culture (if patient's coagulation status is appropriate), or an abdominal CT scan could be considered for potentially more definitive tissue origin identification, or an exploratory laparotomy could be considered for mass removal, at which time biopsies of the gastrointestinal tract are recommended as well.
- In the meantime, supportive medical management of acute gastroenteritis/colitis, possibly stress colitis, with antiemetics, gastroprotectants, potentially Metronidazole or Tylosin, as well as a probiotic +/- higher fiber diet and empirical deworming with a 5-day course of Panacur could all be considered.







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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