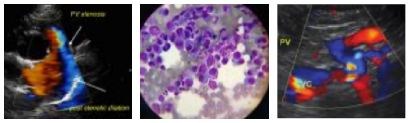
IMAGING PERFORMED BY

IntraPet.com



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**DATE**

7.14.2023

**PATIENT**

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Camden Gruss

**SPECIES**

Canine

**BREED**

Rottweiler

**SEX**

Intact Female

**AGE**

2/20/2016

**WEIGHT**

123.8 lbs

**INTERPRETED BY**

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

**HOSPITAL NAME**

Animal EH

**REFERRING VET**

Dr. Ruby

**INVOICE**

13698

## PRESENTING CLINICAL SIGNS

Started vomiting this afternoon at 3pm. ATO Looked like egg drop soup. Did not want to eat breakfast. Then bloody diarrhea. Straining to have a BM. Has been in estrus the last few days, she tends to gets "achy" with her estrus cycle.

Current Medications: Proviable, buprenorphine, metronidazole, Ondanestron, Protonix, Metocloperamide, Panoquell, Cerenia
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 Brilhart, RDMS.

## 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 2 cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (7.76 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal size (8.69 cm) but is irregular in shape. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is a hypoechoic, rounded structure visualized in the cranial pole (approximately 5.07 x 3.07 cm) most consistent with a hypoechoic mass effect or echogenic cyst/abscess. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is normal in size (0.89 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 (0.70 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, irregular in shape, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a slightly ill-defined hypoechoic, irregular solid mass effect arising from the splenic parenchyma and deviating the splenic capsule (4.07 x 4.02 cm).

### *Liver*

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

The gall bladder lumen is moderately distended. The wall of the gall bladder thickened with a mild “halo” effect (0.47 cm). and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

***Gastrointestinal***
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7 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. No masses or focal lesions were observed.

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 0.3-0.5 cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47 cm) 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 normal and isoechoic to surrounding 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 reveals scant free fluid, with no evidence of lymphadenomegally. The The omentum is generally of normal uniform echogenicity.

***Other***
The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

There is no evidence of pleural effusion or thoracic masses visualized.

The uterus and ovaries are visualized and appear within normal limits.

## ULTRASONOGRAPHIC FINDINGS

### Findings

- Hypoechoic, irregular, solid splenic mass - A focal solid mixed echogenicity mass is visualized associate with the spleen. This mass distorts the splenic capsule. Differentials include: benign lesions (lymphoid hyperplasia, hemangioma etc.). or cancerous lesions (hemangiosarcoma, lymphoma, histiocytic sarcoma etc.).

- Thickened gallbladder wall with a “halo” effect - The ring-like “halo sign” visualized associated with the gall bladder can be seen associated with anaphylaxis, edema, portal hypertension, cholangitis etc.

- Hypoechoic mass effect in the cranial pole of the right kidney – Findings could be consistent with a primary renal mass (carcinoma) or other lesion (such as a metastatic lesion, hemangiosarcoma, other). Additionally, I cannot definitively rule out the possibility of an echogenic abscess (less likely).

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Based on the history provided, this has been a relatively acute illness, which could be consistent with acute hemorrhagic diarrhea syndrome, ingested foreign material, acute gastroenteritis, etc. There are significant abnormalities noted on today's scan, but it is unknown if these are directly related to the acute illness episode reported.

The gallbladder wall appears thickened. I suspect this is consistent with edema, and an anaphylactic or "shocky-type" reaction with edema, inflammation, etc.

There is a solid mass effect visualized, associated with the spleen. This could represent a benign or a neoplastic lesion. Options moving forward would include a fine-needle aspirate or a splenectomy for both diagnostic and therapeutic purpose.

Additionally, there is a hypoechoic mass effect in the cranial pole of the right kidney. This is concerning for a possible metastatic lesion or other mass effect, less likely an echogenic abscess or cystic structure could be considered. A fine-needle aspirate of this lesion might be possible with heavy sedation, but there is a chance it may be too deep in this large dog.

Recommend three-view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

Recommend supportive care to stabilize this patient and empirically treat the hemorrhagic diarrhea, etc., while closely monitoring. You could also consider a fine-needle aspirate of the splenic mass lesion and the renal mass (if reachable). If not, options would include a contrast CT scan to better evaluate, looking for other possible metastatic lesions, etc., and the possibility ultimately, of a splenectomy and nephrectomy if clinically appropriate.

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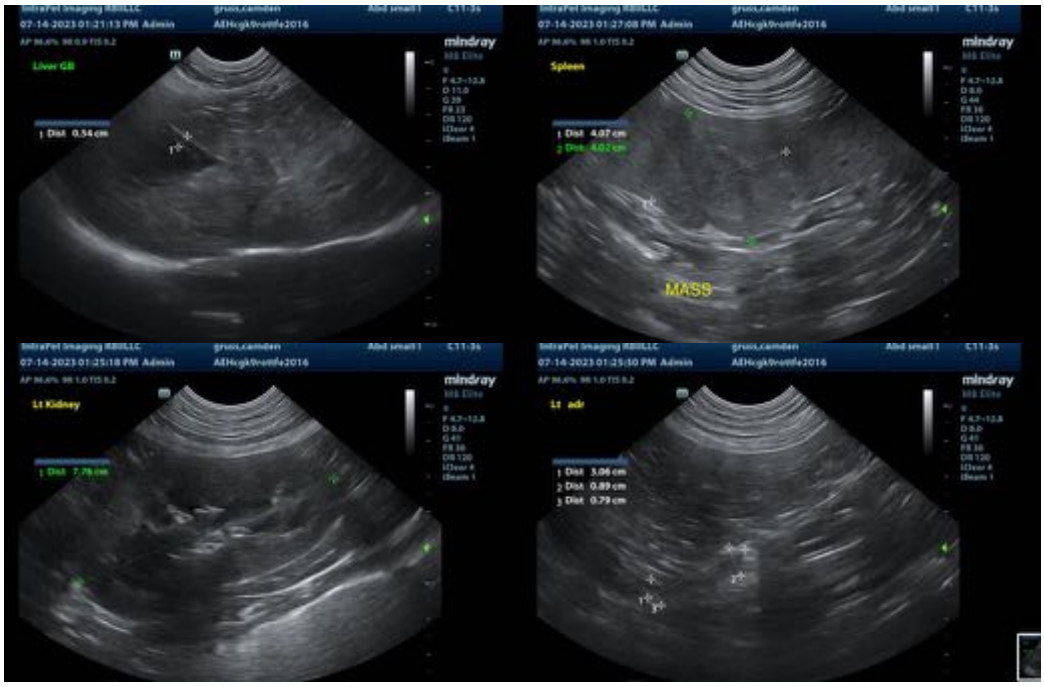

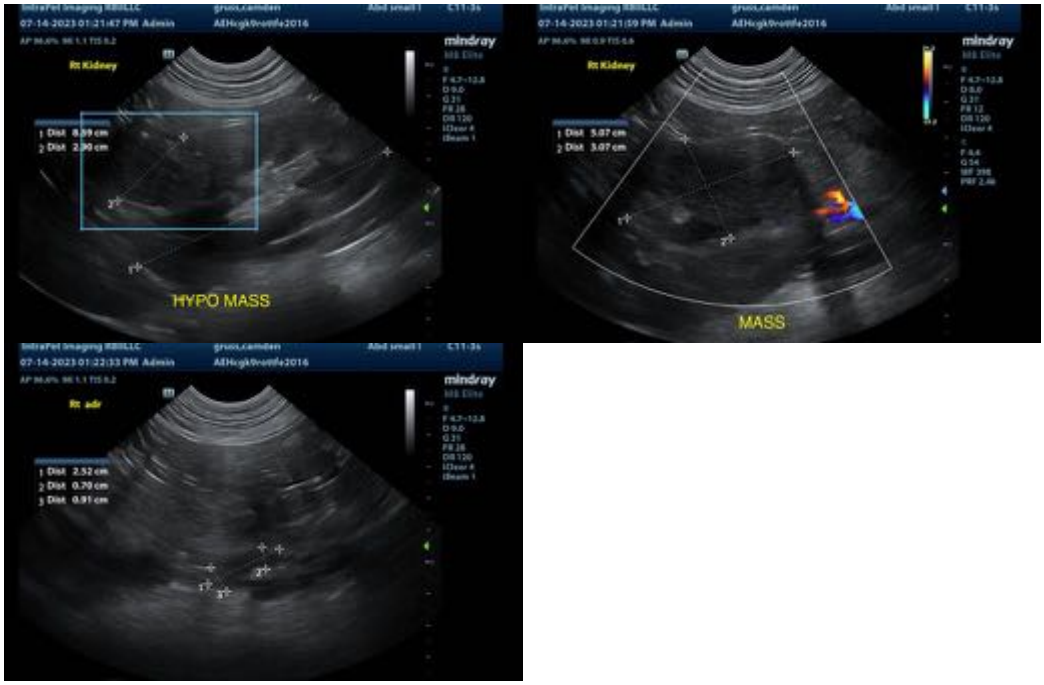


**The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small animal Internal Medicine)
info@SonoPath.com