

**DATE PRESENTING CLINICAL SIGNS**

11/8/22 Started vomiting over night. 6 piles of vomit Ate sand yesterday. To RDVM this am. BW and X-rays done. Referral for FB.

**PATIENT**

Rambo Ciscle Current Medications: Ampicillin, Ondansetron, Buprenorphine, Entyce, Protonix, Metoclopramide.  
Lab Results: See attached.

**SPECIES**

Canine

**BREED**

Pit Bull

**SEX**

Neutered Male

**AGE**

7/18/17

**WEIGHT**

70 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rachel Brilhart RDMS

**HOSPITAL NAME**

Animal Emergency  
Hospital

**REFERRING VET**

Dr. Ruby

**INVOICE**

42626

**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 prostate is normal in size (1.5 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (7.69 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (7.17 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.77 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 1.0 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. The spleen echotexture is heterogenous and mildly mottled, 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 in size, and is hypoechoic with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is mildly prominent and thickened, measuring 0.30 cm, with a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach contains minimal luminal contents, but a small amount of dependent shadowing material is present, most consistent with sandy debris. It measures at a normal thickness of <0.7cm 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. There is some shadowing visualized on radiographs, most consistent with sandy debris. 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***

There is a small amount of free abdominal fluid. No lymphadenopathy. The omentum appears diffusely mildly hyperechoic.

### ***Other***

A brief view of the heart was submitted. No significant pericardial effusion was seen.

There is a small amount of pleural effusion visualized cranial to the diaphragm on the left side.

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

## **PRIMARY FINDINGS**

- Mildly mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Hypoechoic, 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.
- 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.
- Free abdominal fluid

- Small volume pleural effusion

## SECONDARY FINDINGS

- Mildly prominent/thickened gallbladder wall - This could be secondary to edema and is likely not significant.

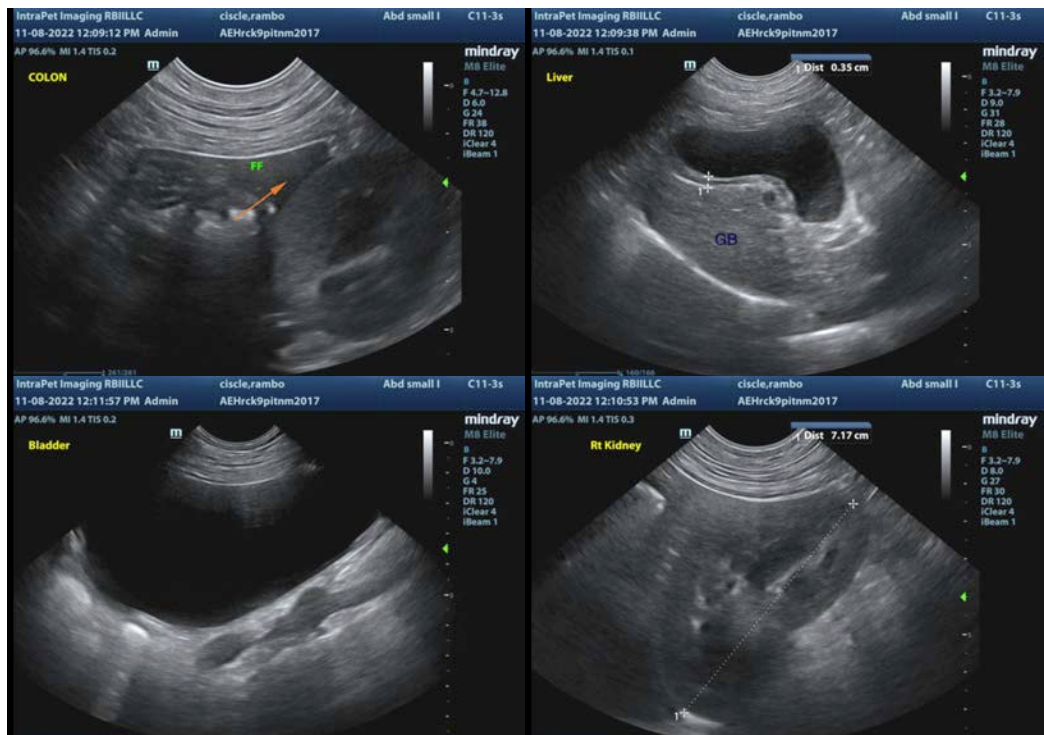
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

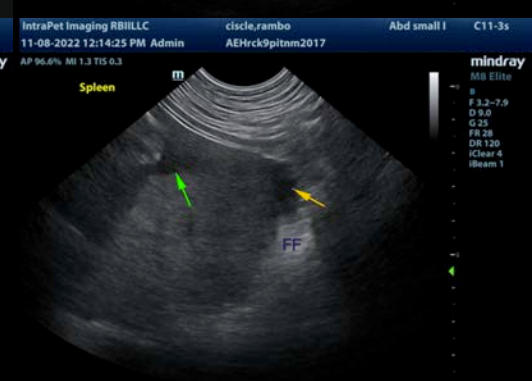
As reported on the radiographs, there is some shadowing in the stomach and small intestine, most consistent with sandy debris. No obvious obstructive pattern or foreign material is observed, although this cannot be definitively ruled out. There is a small amount of free abdominal fluid. Recommend sampling for fluid analysis, cytology, +/- culture. Additionally, there is some pleural effusion visualized cranial to the diaphragm. Recommend 3-view thoracic radiographs and possibly consider a cardiac ultrasound if a cause is not revealed on bloodwork (hypoalbuminemia), and fluid analysis could be considered with cardiac disease.

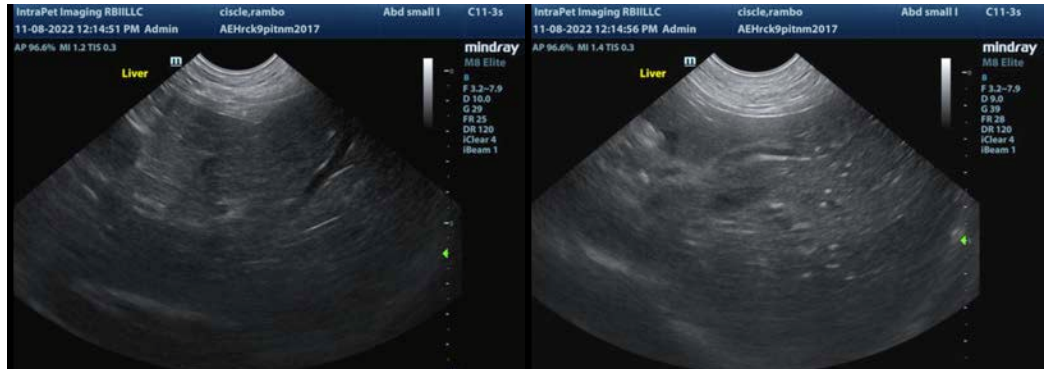
The pancreas is visible and somewhat prominent. Correlate these findings with a cPLI level. The liver appears hypoechoic and heterogeneous. If liver enzyme elevations are present, you could consider a liver function test +/- fine needle aspirate of the liver.

The spleen appears somewhat mottled. Consider a fine needle aspirate of the spleen, provided coagulation parameters are normal.

Correlate these findings with the clinical signs. An obvious cause for the effusion is not observed, but strongly recommend sampling in correlation with bloodwork and radiographs. Consider symptomatic treatment for acute gastroenteritis/pancreatitis, and serial radiographs to look for more significance evidence of ingested foreign material.







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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)  
kathleen.sennello@sonopath.com