

**DATE PRESENTING CLINICAL SIGNS**

9/6/22

Recheck from 9/3 - Diarrhea (bloody/ yellow), not eating/ not drinking/ lethargy Hx: - GI issues in past - Few years ago- hydrolyzed diet --> royal canin high fiber (2 years) - August BFF- GI bug --> metronidazole + Cerenia + Diet chicken and rice 9/3/22 AEH: - PC: 1. Not eating 2, Vomited 4x + V after cerenia 3, Coughing/ heaving - O worried for aspiration pneumonia 4. Hx: chewing toys- no specific hx lately - Recommended IVF- O elected xrays first- elected outpatient - Dxs: 1. X-rays- concern for mass in abdomen 2. CBC/CHEM/LYTES: inc lipase 1831 - Tx: 1. SQ fluids 2. Ondansetron injection 3. TGH- proviable, ondansetron, gabapentin, omeprazole. Date: 09-05-2022 Notes: ATO in room: - yesterday picked up probiotics - began having yellow diarrhea yesterday- didn't have this before - diarrhea has turned progressively bloodier overnight - this AM gave Zofran - vomited today after Zofran - inappetence today - on boiled chicken rice diet - normal diet is wet food mixed (EN) with dry -mass on liver? (Found on X-ray) - Ato P will whine if he needs to go out

**PATIENT**

Otis Mullaney

**SPECIES**

Canine

**BREED**

Pit Bull X

**SEX**

Neutered Male

**AGE**

3/4/13

**WEIGHT**

58.8 Pounds

**INTERPRETED BY**

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MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Rachel Brillhart RDMS

**HOSPITAL NAME**

Animal Emergency  
Hospital

**REFERRING VET**

Dr. Kalwa

**INVOICE**

41047

**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 (0.94 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 (6.71 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 (7.1 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 0.72 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 0.83 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 in size and 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 appears mildly thickened at 0.65 cm with a smooth wall. Luminal contents are mild and 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 <0.7cm 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. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.40 cm. Jejunum wall measures 0.28 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 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.

## **ULTRASONOGRAPHIC FINDINGS**

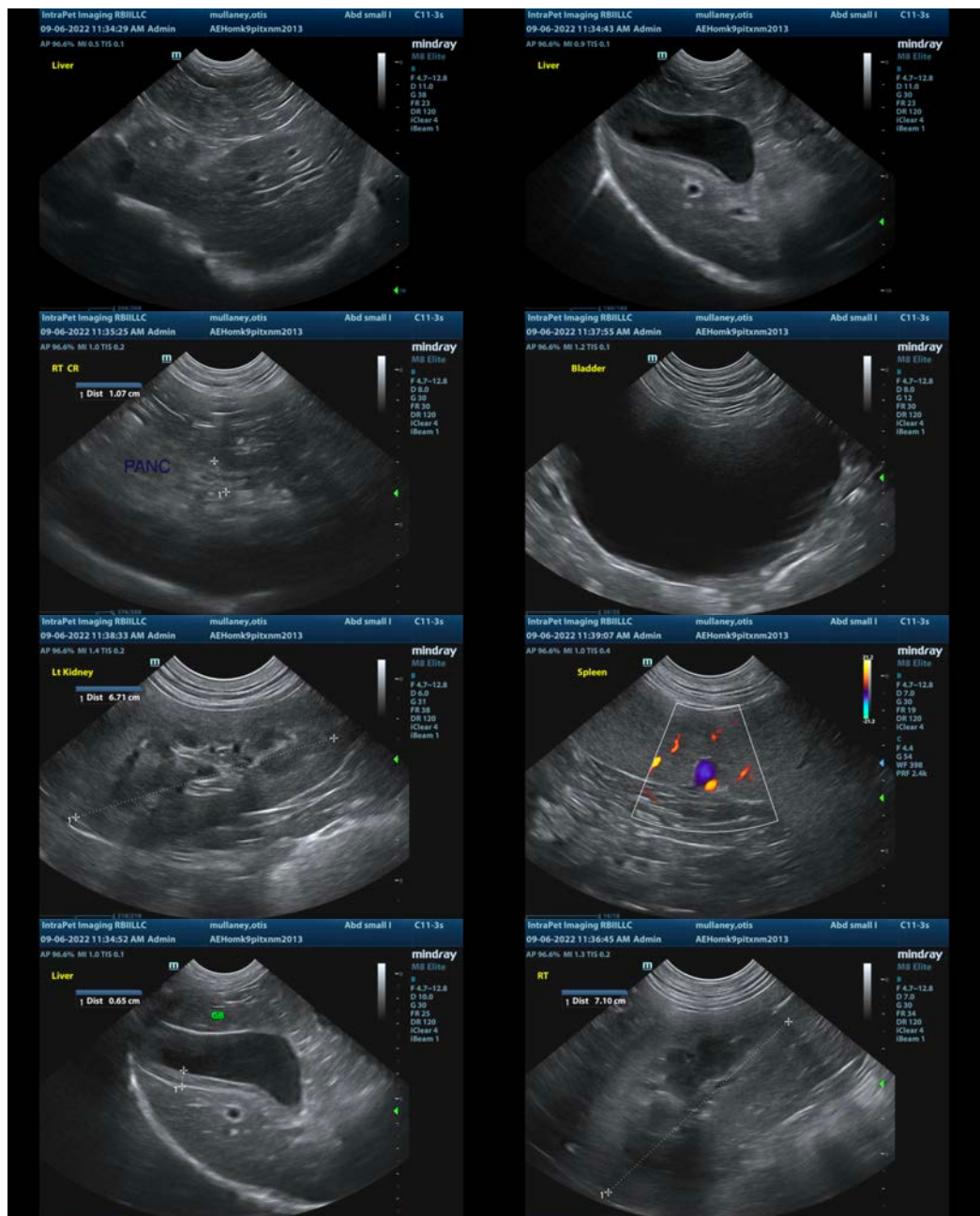
- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Hypoechoic, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Thickened gallbladder wall – The significance of this is unclear in the absence of liver enzyme elevations. Recommend continued monitoring.

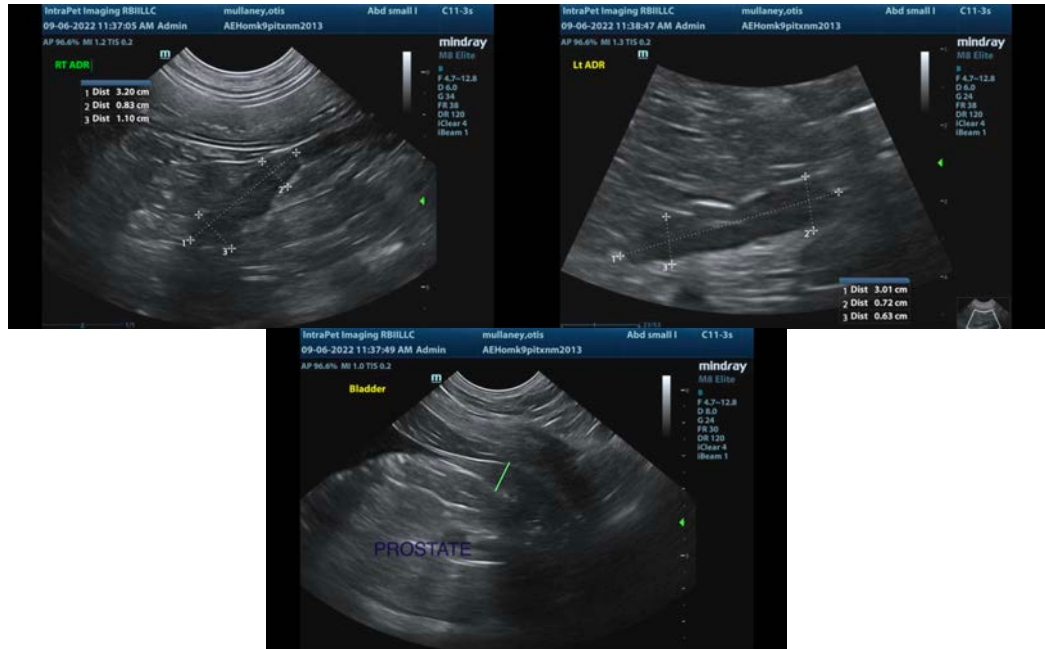
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The lesions observed on today's scan are relatively mild. The changes observed in the liver and gallbladder are subjective, and the significance of these lesions are uncertain in the absence of liver enzyme elevations. Recommend continued monitoring. If there are concerns for underlying liver disease, you could consider a liver function test.

The pancreas is prominent and hypoechoic, but there is no evidence of significant surrounding inflammation. Correlate findings with a PLI test, as mild or chronic pancreatic inflammation could be considered.

Unfortunately, there are many causes for diarrhea that cannot be diagnosed by ultrasound alone. You're doing a good job with dietary therapy, probiotic therapy, etc. If significant small intestinal disease is present, hospitalization may be required, as oral medications may not be being absorbed appropriately. If symptoms progress and become more chronic, then GI biopsies may be indicated. Consider testing for infectious causes of diarrhea.





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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