

**DATE PRESENTING CLINICAL SIGNS**

10/15/21 Chronic intermittent diarrhea reported at wellness exam on 10/2.  
Grade V/VI murmur. Dermal masses.

**PATIENT**

Kirby Davies Current Medications: Gabapentin 100mg #28 - 1 cap PO BID.  
Tramadol 50mg #28 - 1 tab PO BID with food  
Miconahex + Triz wipes - use between paw pads BID  
Date of Previous IntraPet Ultrasound: No previous  
Sedation: not needed  
Stat Report: not requested

**SPECIES**

Canine

**BREED**

Poodle X

**SEX**

Neutered Male

**AGE**

2008

**WEIGHT**

26.9

**INTERPRETED BY**

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

**HOSPITAL NAME**

Churchville Vet Clinic

**REFERRING VET**

Dr. Kauffman

**INVOICE**

26338

**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 (0.83 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 (5.14 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 shape and size (4.98 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.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.80 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 0.74 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 large in size, and normal in echogenicity 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. There are numerous, very ill-defined hypoechoic nodules within the hepatic parenchyma, varying in size from 0.3-0.7 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. 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 measured 0.32 cm. Jejunum wall measured 0.30 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 did not reveal any evidence of effusion. Mild mesenteric lymphadenopathy is noted. Mesenteric lymph nodes measure at 0.58 and 0.45 cm. 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**

- Large, heterogeneous liver with ill-defined, hypoechoic nodules – 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.
- Mildly prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

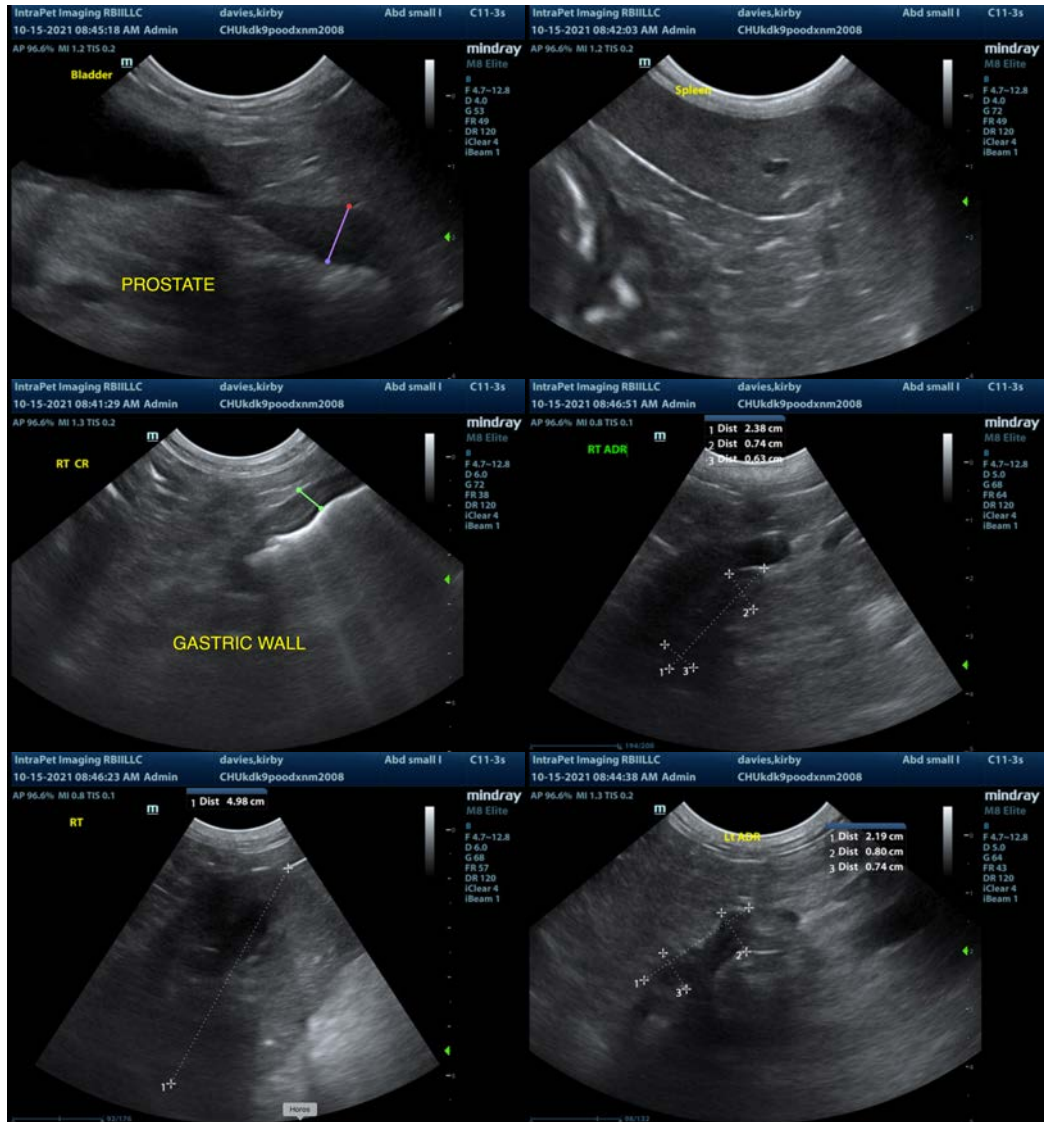
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

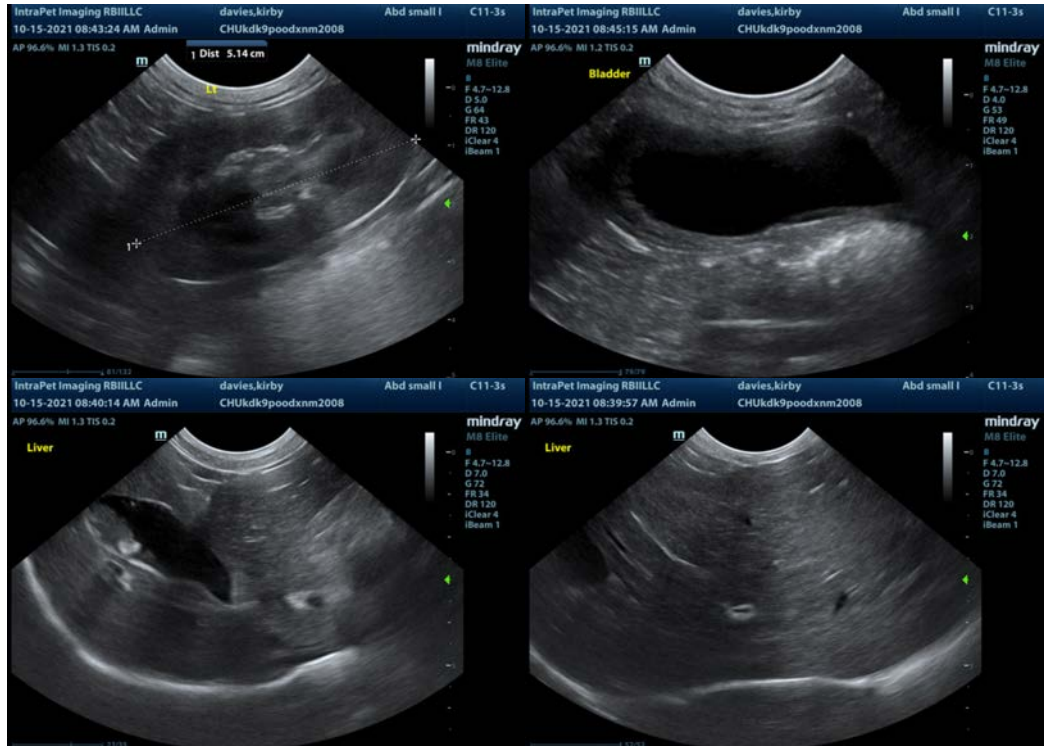
No focal lesions were observed associated with the bowel or other areas to explain the intermittent diarrhea reported. Unfortunately, there are many causes for diarrhea that cannot be diagnosed by ultrasound alone.

- Consider metabolic causes based on bloodwork, ACTH stim results, Liver function testing, Gi panel (TLI/PLI, folate, cobolamine.)
- Consider primary GI causes: Gi parasitism, dietary indiscretion, mild pancreatitis, bacterial dysbiosis, food allergy, IBD and less likely intestinal neoplasia.

In older patients with more chronic symptoms, I would most strongly consider food allergy, IBD, and intestinal neoplasia.

- Recommend diet trial with a novel protein/hydrolyzed prescription diet.
- Recommend a quantitative PLI, TLI, cobalamin and folate through Texas A&M University to further evaluate for pancreatic and small intestinal disease.
- Recommend probiotic therapy.
- If symptoms are progressing consider obtaining GI biopsies.





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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