



**DATE PRESENTING CLINICAL SIGNS**

10/14/22

Patient was seen in September for vomiting and diarrhea of two weeks duration. He had also started eating carpet. He was treated symptomatically for these symptoms and has been doing well. He has severe dental disease with a gingival mass so dental work was scheduled, but his pre-anesthetic labs showed increased liver values (ALT 204, GGTP 15), elevated globulins (4.1) and increased Monocytes (1080).

**PATIENT**

Bandit Cruel

**SPECIES**

Canine

Current Medications: proviable and food change to previous diet he had done well on  
Lab Results: ALT 204, GGTP 15, globulins 4.1, Monocytosis 1080  
Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

**BREED**

Maltese

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SEX**

Neutered Male

**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.

**AGE**

9/16/09

The prostate is normal in size (0.98 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.

**WEIGHT**

21.2 Pounds

The left kidney has a normal shape and size (4.75 cm). Overall echogenicity is slightly hyperechoic with poor 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.

**INTERPRETED BY**

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

The right kidney has a normal shape and size (4.72 cm). Overall echogenicity is slightly hyperechoic with poor 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.

**IMAGING PERFORMED BY**

Andi Parkinson RDMS

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.58 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.

**HOSPITAL NAME**

Festival Vet Clinic

The right adrenal gland is normal in size measuring 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.

**REFERRING VET**

Dr. Davies

**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. There is a mixed echogenic, somewhat poorly defined nodule visualized in the cranial third of the spleen measuring 0.75 cm x 0.60 cm.

**INVOICE**

42094

**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 is a distinct mildly hypoechoic nodule visualized within the hepatic parenchyma measuring 2.38 cm x 2.15 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 to large 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. 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 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, 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.

### ***Other***

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

## **ULTRASONOGRAPHIC FINDINGS**

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.
- Mixed echogenic nodule visualized in the cranial third of the spleen – There is a non-cavitated, mixed echogenic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Large, heterogeneous liver with a hypoechoic lesion – 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. There is a discrete hypoechoic lesion visualized within the parenchyma. This could represent a benign or neoplastic mass lesion. Additionally, there is the possibility it represents a cystic lesion filled with echogenic fluid (less likely). If you can obtain an angle, recommend a fine needle aspirate.
- Moderate/large amount of gallbladder debris – The significance of the aggregated gallbladder debris

is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

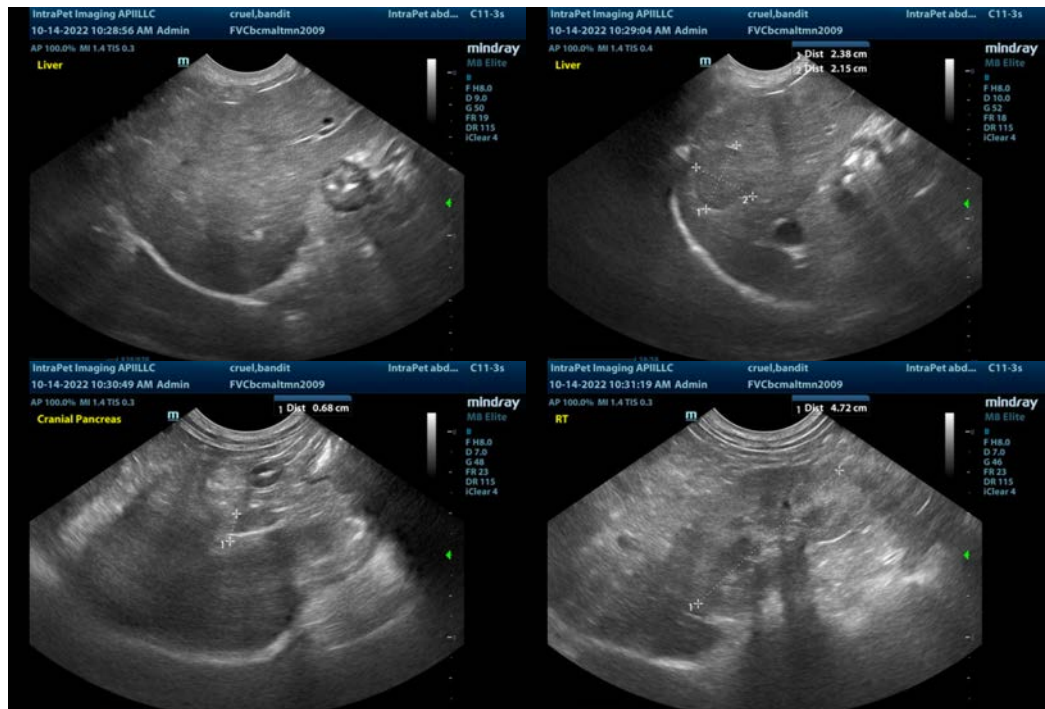
### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

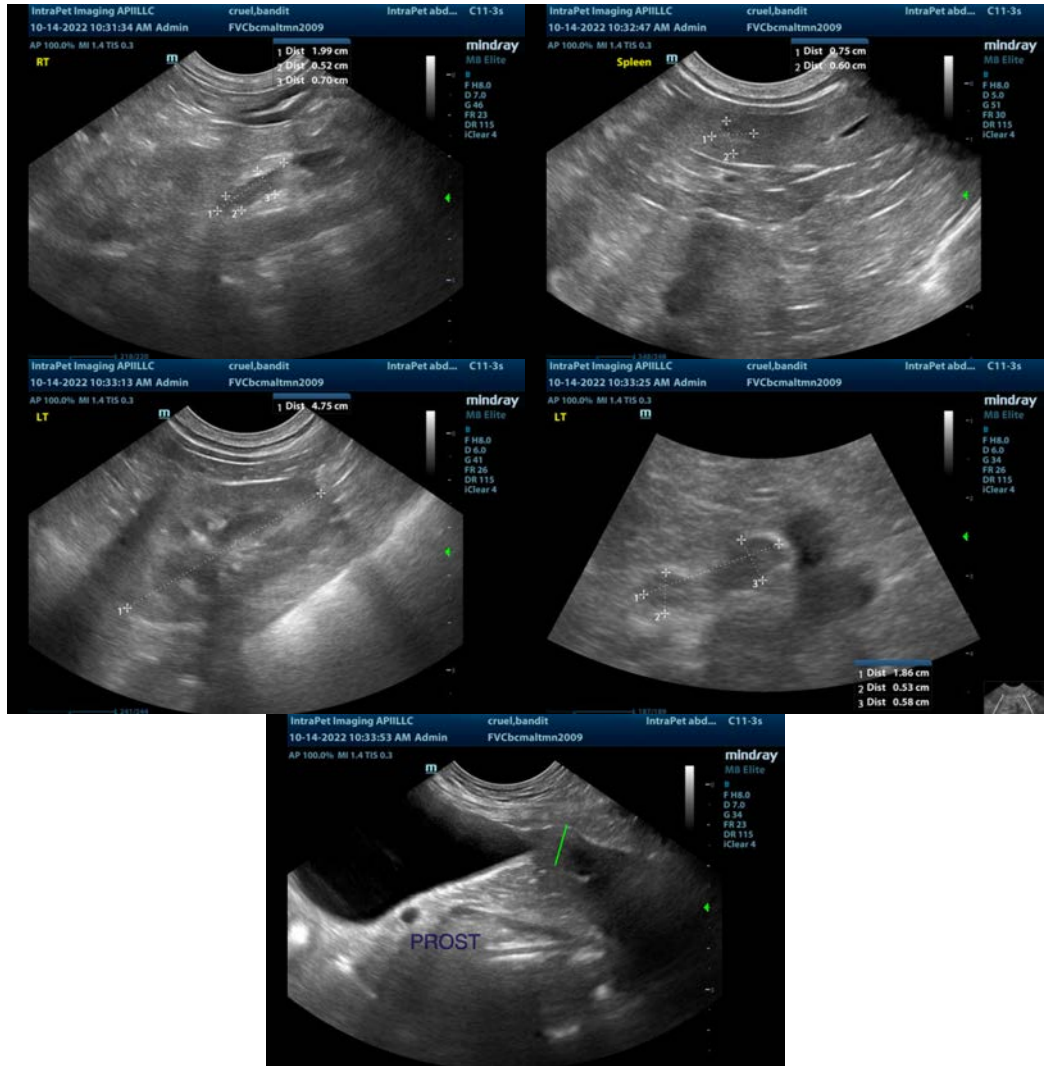
There is a small mixed echogenic nodule in the spleen. Options moving forward include continued monitoring and/or a fine needle aspirate.

The liver is large and heterogeneous. This is a non-specific finding. There is a focal lesion visualized within the parenchyma. If you're able to obtain an angle to sample it, recommend a fine needle aspirate (provided coagulation parameters are normal). Otherwise, recommend continued monitoring with ultrasound (recheck in 2-3 months).

There is a moderate to large amount of debris within the gallbladder, but the gallbladder wall appears relatively normal and there is no significant inflammation surrounding the gallbladder. Recommend continued monitoring. Additionally, you could preemptively try chronic Ursodiol therapy and continued monitoring.

The changes observed in the kidneys are most consistent with chronic progressive age related renal disease. Recommend a blood pressure, urinalysis and culture as a baseline.





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