

**DATE PRESENTING CLINICAL SIGNS**

5/11/22

Colitis for months without response to diet change or probiotics, metronidazole. Rectal mass palpated, removed @ CARE in frederick and biopsy returned as low grade large cell lymphoma. Considering chemo, want a met check/workup first.

**PATIENT**

Desmond Birger

Current Medications: Metronidazole 250 mg PO BID, Provable kit

Lab Results: See attached.

Radiographs: See attached.

**SPECIES**

Date of Previous IntraPet Ultrasound: No previous.

Canine

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**BREED**

Mixed

**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**

3/12/16

The prostate is normal in size (0.72 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**

37.8 Pounds

The left kidney has a normal shape and size (6.06 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.

**INTERPRETED BY**

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

The right kidney has a normal shape and size (5.72 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.

**IMAGING PERFORMED BY**

Rachel Brillhart RDMS

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.62 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**

Airpark AH

The right adrenal gland is normal in size measuring 0.63 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. Owens

**Spleen**

The spleen is borderline large 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.

**INVOICE**

37615

**Liver**

The liver is subjectively normal in size, and 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 mass deep on the right side that is somewhat irregular and hypoechoic, measuring approximately 4.44 cm x 2.6 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 is dilated with a moderate to large amount of fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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. Jejunum wall measured 0.31 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. There are occasional prominent mesenteric lymph nodes visualized, one measures 0.55 cm. The omentum is of increased echogenicity around the right cranial mass effect.

## **PRIMARY FINDINGS**

- Borderline large, 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.
- Heterogeneous liver with irregular, hypoechoic mass effect deep on the right side – 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. The hypoechoic mass lesion is concerning for a possible neoplastic process, although a benign lesion is possible.
- Large ingesta visualized within the gastric lumen – correlate with feeding history. If the patient was adequately fasted, then consider possible delayed gastric emptying or partial outflow tract obstruction (none observed).
- Rare prominent mesenteric lymph node – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

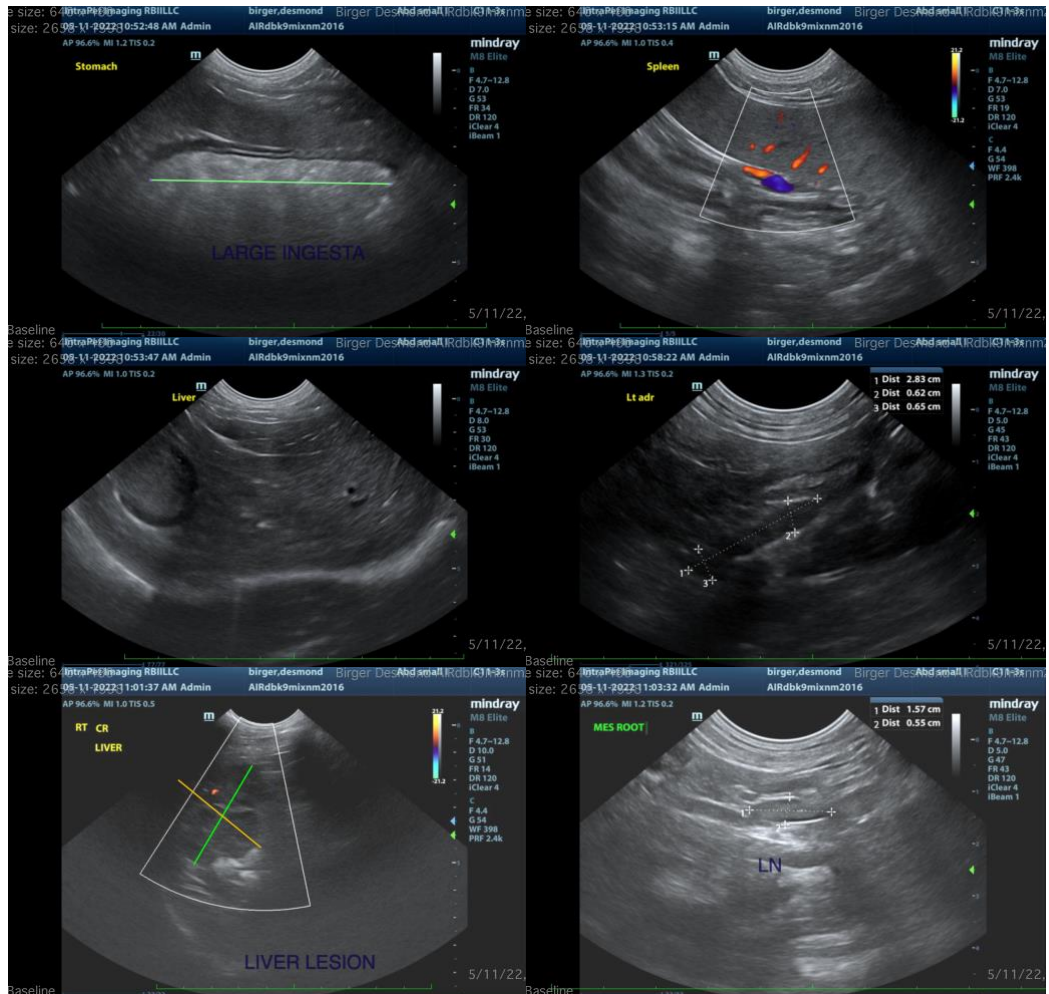
## SECONDARY FINDINGS

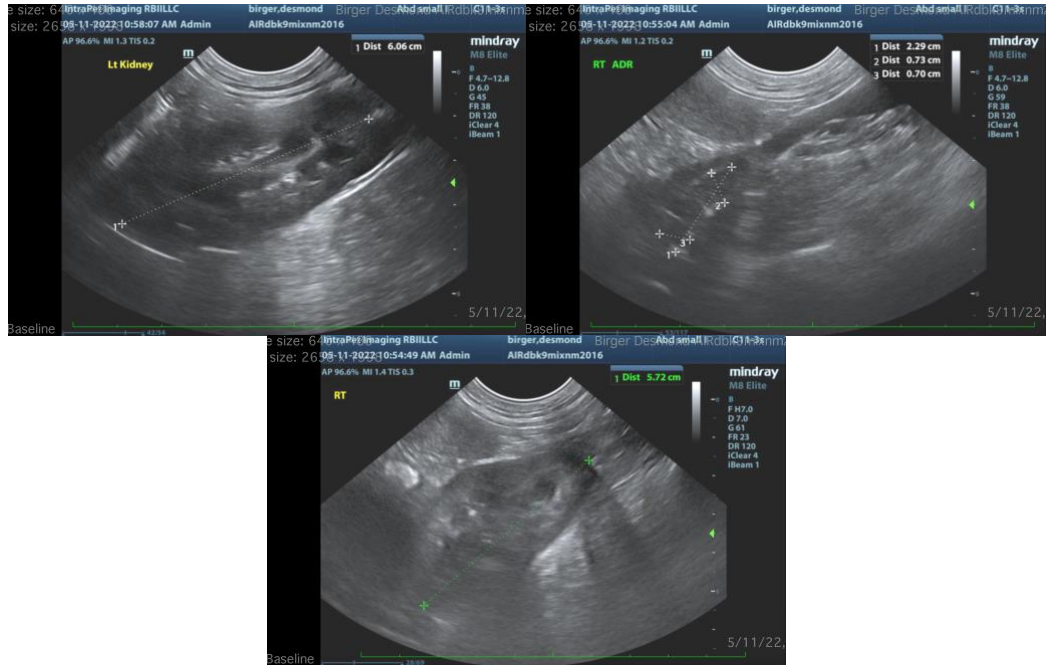
- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a large, irregular, hypoechoic mass effect deep in the right cranial aspect of the abdomen, most consistent with a hepatic mass. Recommend a fine needle aspirate of this mass lesion. Additionally, the spleen appears somewhat prominent and mildly mottled. Based on the history of lymphoma, a fine needle aspirate is recommended.

The gastric lumen is distended with food despite a reported adequate fast. This could be consistent with delayed gastric emptying or an outflow tract obstruction, which is not apparent on today's scan. Recommend continued monitoring and correlate with abdominal radiographs.





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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