

**DATE PRESENTING CLINICAL SIGNS**

7/22/22

Referral from rdvm; change in behavior noted this morning, very acute. Usually he is very active. was normal this am, then did not want to do stairs. Became lethargic, breathing heavy (o noted abdominal breathing). Also urinated in the basement. Went to rdvm, yelped when he jumped out of the car. Acting very abnormal, rads showed abdominal mass, concern for splenic mass. BW: wbc wnl and pcv wnl, platlets decreased

**PATIENT**

Donovan Griffin

**SPECIES**

Canine

Current Medications: None listed.

Lab Results: AFAST- trace FF near spleen, not enough to tap TFAST- neg

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**BREED**

German Shepherd

**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**

7/21/14

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

**WEIGHT**

100.8 Pounds

The left kidney has a normal shape and size (8.14 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.

**INTERPRETED BY**

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

The right kidney has a normal shape and size (8.3 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**

Andi Parkinson RDMS

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.67 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**

Animal Emergency  
Hospital

The right adrenal gland is normal in size measuring XXcm 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. Goessling

**Spleen**

The spleen is large, irregular, and heterogeneous. The blood flow through the hilus and splenic parenchyma appears normal. There are numerous intraparenchymal hypoechoic, ill-defined nodules observed, as well as three discrete, hypoechoic, partially cavitated masses that disrupt the splenic capsule. The first of these measures 4.85 cm x 4.53 cm. Another measures 3.3 cm x 3.19 cm. Another has a diameter of 1.74 cm.

**INVOICE**

39766

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is mildly 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. There is hyperechoic mesentery and scant amount of free fluid visualized around the liver.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are 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. 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 left limb of the pancreas is prominent and hypoechoic as 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 present. There is no lymphadenopathy noted. The omentum is hyperechoic around the liver and spleen.

### ***Other***

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

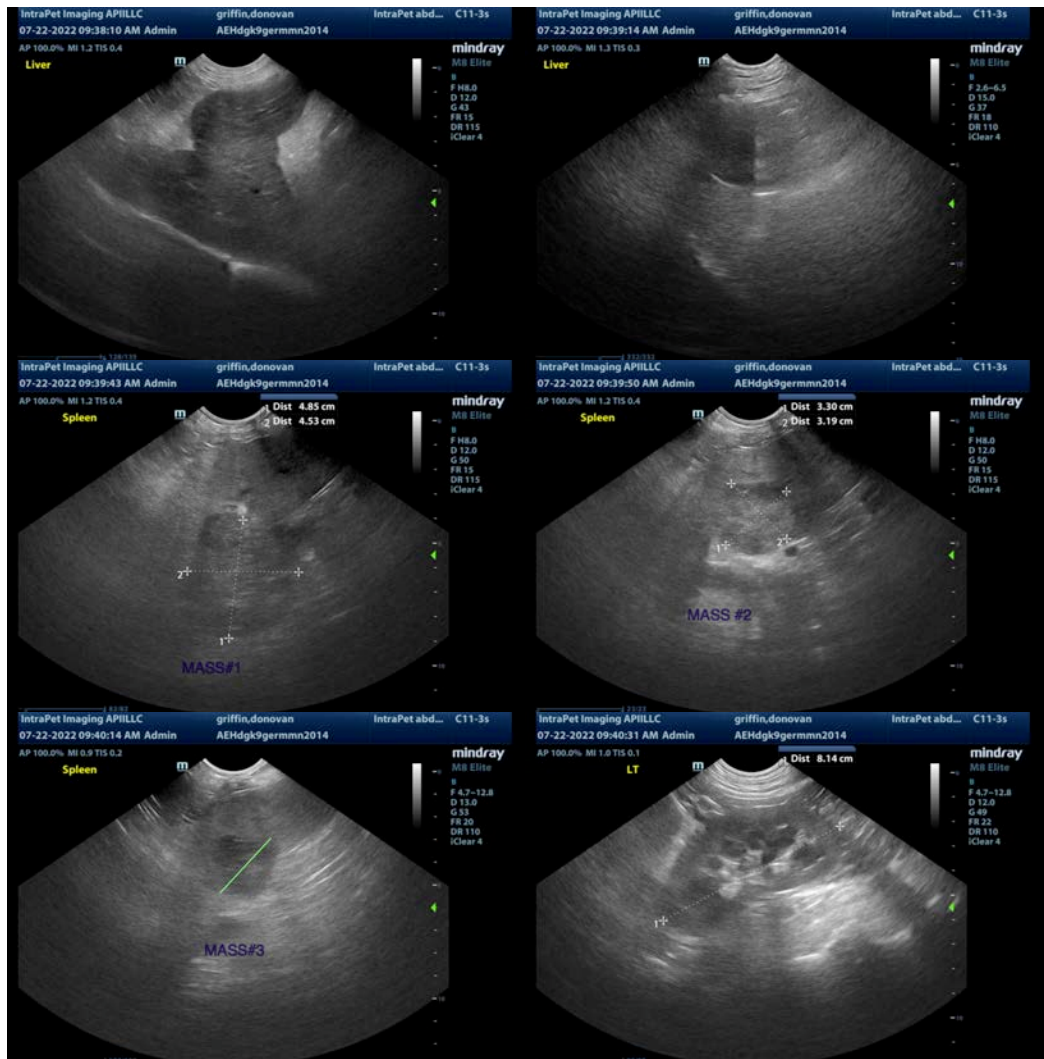
## **ULTRASONOGRAPHIC FINDINGS**

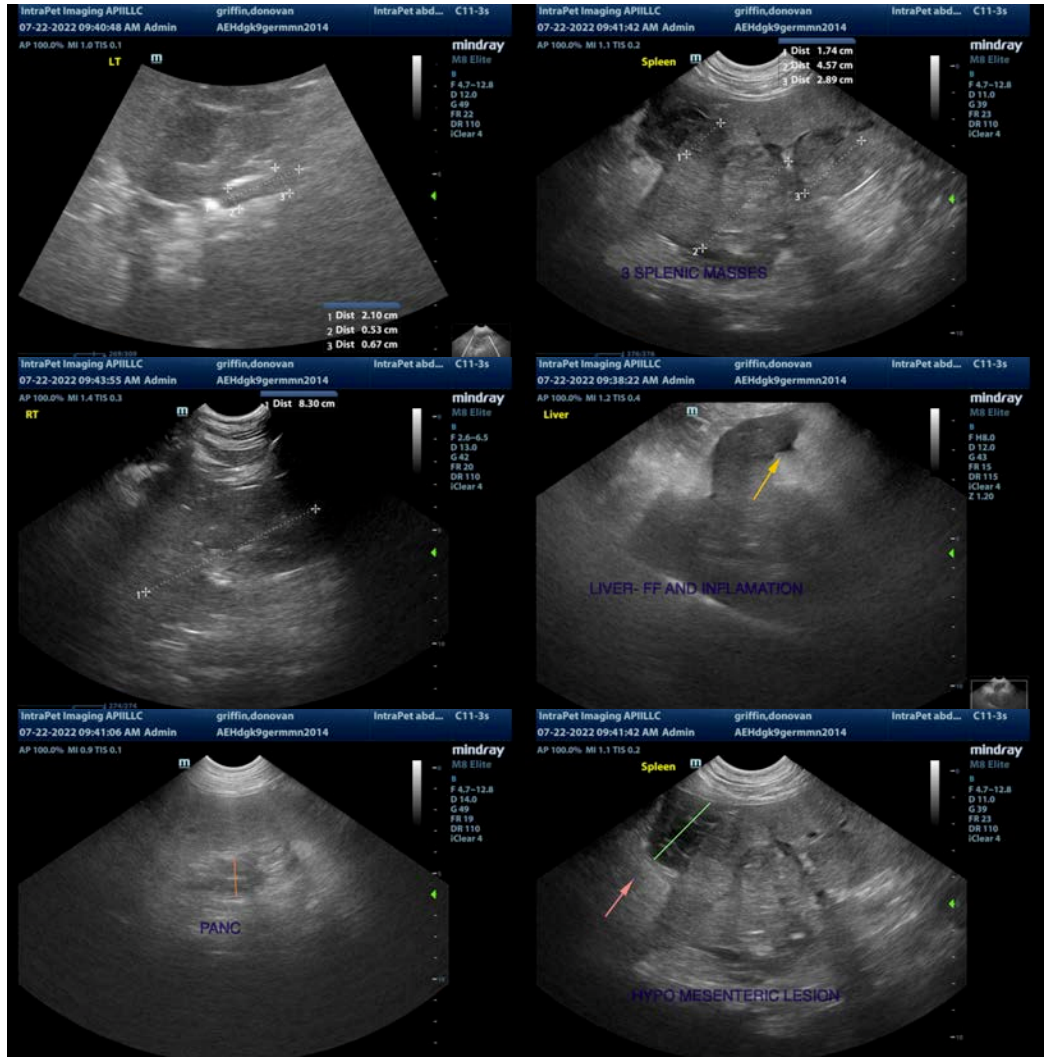
- Nodular, irregular spleen with three hypoechoic, mildly cavitated mass lesions – Multiple masses are present within the splenic parenchyma. These masses distort the splenic capsule. Differentials include benign lesions such as lymphoid hyperplasia, hemangioma, etc., or neoplastic lesions such as hemangiosarcoma, lymphoma, histiocytic sarcoma, etc.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Mildly 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.
- Small amount of free abdominal fluid – recommend sampling if possible, as I'm concerned this could represent early hemorrhage.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The spleen is very abnormal, irregular, and nodular, with some discrete mass lesions that disrupt the splenic capsule. Additionally, there is a small amount of free abdominal fluid, which is concerning for possible early hemorrhage. The surrounding mesentery is hyperechoic with some patchy, hypoechoic regions, but no distinct evidence of metastasis is visualized. Recommend splenectomy for both diagnostic and therapeutic purposes.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





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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