**DATE**

8/10/21

**PRESENTING CLINICAL SIGNS**

Referral for Continued Care.

History: Date: 08-09-2021 Notes: History dental dz, not eating well - rDVM Rx gaba + clinda ADR, wobbly, PU/PD, no V/D - recheck rDVM. 8/9 Hct 29, plt 20K BUN 40, phos 11.3 alb 2.0 ALP 242, Tbili 1.2, chol 32 Na 143, CL 100 rads: hepatosplenomegaly hematomas @ venipuncture.

**PATIENT**

Angel Roper

Current Medications: Cerenia 4mg IV SID, Prednisone 5mg PO BID, Doxycycline 40mg SID, Protonix 4mg IV SID, Vincristine 0.06mg IV once, Buprenorphine PRN.

**SPECIES**

Canine

Radiographs: rDVM radiographs - organomegally, possible mass effect mid-abdomen. 4dx: neg.

Date of Previous IntraPet Ultrasound: No previous

Sedation: not needed

Stat Report: not requested

**BREED**

Silky Terrier

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System****SEX**

Spayed Female

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**

2013

The left kidney has a normal shape and size (4.48 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. Mild pyelectasia is present and measured 0.25 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

7.1 lbs

The right kidney has a normal shape and size (4.55 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)

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.49 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 0.62 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. Jones

**Spleen**

The spleen is subjectively large in size The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are at least two hypoechoic nodules visualized. One measured 0.93 cm and one measured 1.3 cm.

**INVOICE**

91112

**Liver**

The liver is subjectively (normal, large, small, normal/large, normal/small) 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. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder 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 appears contains minimal luminal contents. It measures at a normal thickness of (XX cm) 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 XX cm in diameter and the jejunum measured XX cm in diameter. 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 revealed a mild amount of scant free fluid, but did not reveal any lymphadenomegaly. The medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of increased echogenicity in the cranial abdomen around the liver.

### ***Other***

A small volume of pericardial effusion was noted. I recommend cardiac ultrasound, suspect small volume of pleural effusion. I recommend three view chest radiographs.

## **ULTRASONOGRAPHIC FINDINGS**

### **PRIMARY FINDINGS:**

- Large, irregular mottled spleen with two hypoechoic nodules. There are several, non-cavitated, hypoechoic splenic nodules visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. There are diffuse changes to the splenic parenchyma in general and it is irregular in shape. The changes are concerning for a neoplastic process.
- Heterogenous 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 volume of pericardial and pleural effusion. I recommend thoracic radiographs and cardiac ultrasound.

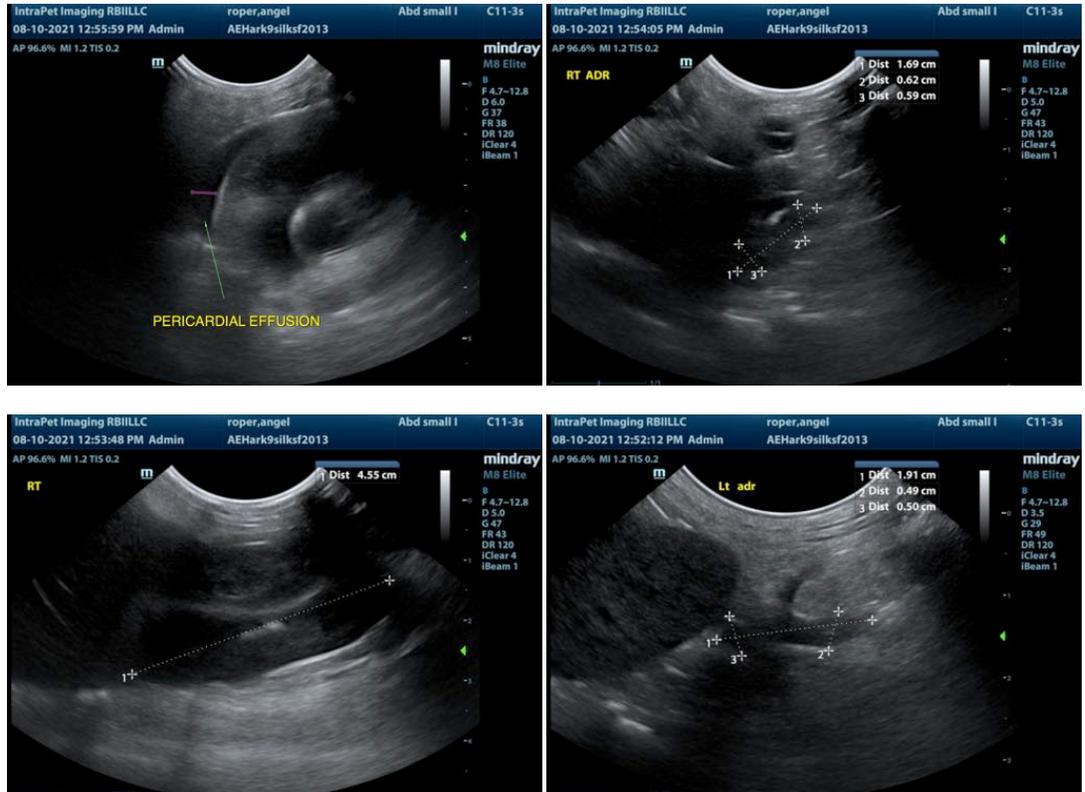
**SECONDARY FINDINGS:**

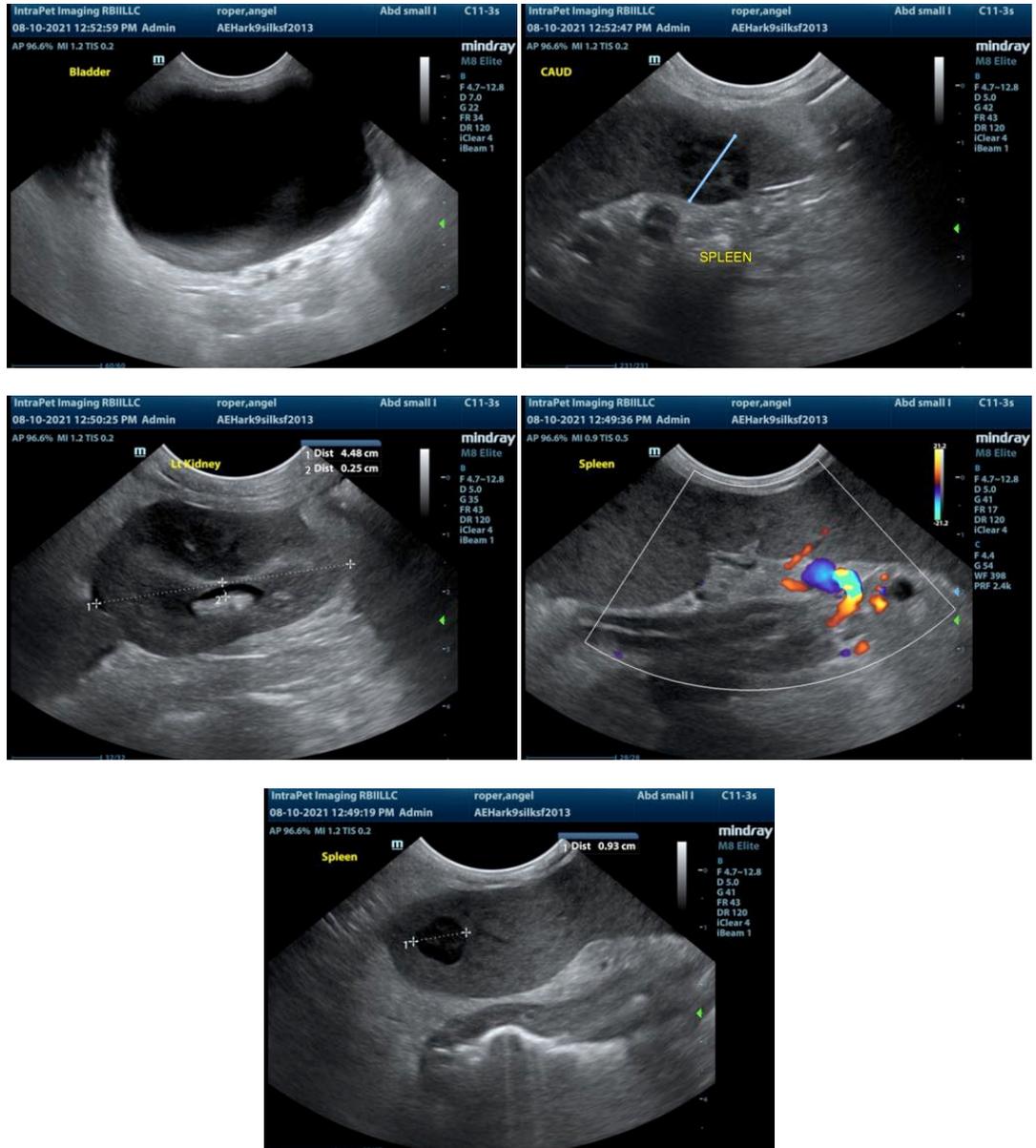
- Mild pyelectasia of the left kidney. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Based on the history and lab work findings there is high concern for a systemic process. This is supported by the findings of abnormalities existing in the thorax and abdomen. Ideally I recommend FNA of the spleen and liver. This could be risky with provided clotting difficulties. Consider starting Vitamin K +/- plasma transfusion if clotting times are prolonged (possible DIC).

I recommend three view chest radiographs as concern for round cell neoplasia or hemangiosarcoma is high. I recommend cardiac ultrasound to further evaluate the heart and the pericardial effusion visualized. If suspicion for tick borne disease is high then consider more extensive testing with a vector borne disease panel through NC State vector borne disease lab.





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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