

**PATIENT PRESENTING CLINICAL SIGNS**

Jax Kendrick

Recent history of elevated globulins on wellness exam. Has vomited 2x in the past 2 weeks. Owner felt possible firm mass in/on abdomen. Rads of chest taken and cranial abdominal mass seen. No obvious chest mets. Ultrasound to assess mass and cause for elevated globulins.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: No abdominal mass palpated on exam. 2 SC masses palpated: 1 on chest and 1 on left caudal abdomen. Moderate dental tartar. BCS 4/9. 8/14/23 Increase total protein 8.0 Decreased albumin 2.5 Increased globulins 5.5 Decreased A/D ratio 0.5 Increased ALP 190 Magnesium low 1.4 CPK low 43 White blood cells high 16.1 Neutrophils high 12 719 Monocytes high 12 8 8 T4 low low normal 0.9 USG 1.011 pH high 8.5 Fecal not submitted Accuplex negative

**BREED**

Lab X

**SEX**

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Neutered Male

**Urinary System**

**AGE**

9 Years 9 Months

The urinary bladder is moderately distended with anechoic urine. The Bladder wall is diffusely mildly thickened (0.36 cm), and the mucosa is mildly irregular. The trigone, ureteral papillae, and visible urethra (to a depth of 2cm) appear normal with no evidence of severe mucosal irregularities, masses or cystic calculi. Findings are most consistent with bacterial cystitis or lack of urine distension.

**WEIGHT**

49.2 Pounds

Recommend urinalysis and culture.

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.

**INTERPRETED BY**

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

The left kidney has a normal shape and size (6.57 cm). Overall echogenicity is normal with adequate 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**

Dr. Lucas Budden

The right kidney has a normal shape and size (8.35 cm). Overall echogenicity is normal with adequate 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.

**HOSPITAL NAME**

Frontier Vet Hospital

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.71 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.

**REFERRING VET**

Dr. Lucas Budden

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.

**INVOICE**

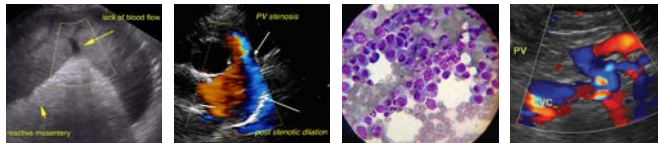
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**Spleen**

**DATE**

8/23/23

The spleen is large and irregular in shape. The blood flow through the hilus and splenic parenchyma appears normal. There is a very large, mixed echogenic, mildly cavitated complex mass effect visualized in the left cranial abdomen measuring >10.67 cm x 7.76 cm, which appears to be originating from the spleen.



**PATIENT**

**Liver**

Jax Kendrick

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 an ill-defined hyperechoic nodule visualized within the parenchyma measuring 1.71 cm x 1.07 cm. Additionally, on the right side of the liver there is a very large anechoic cystic structure measuring 6.89 cm in diameter, which is visualized adjacent to the gallbladder.

**SPECIES**

Canine

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The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

**SEX**

Neutered Male

**Gastrointestinal**

**AGE**

9 Years 9 Months

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.

**WEIGHT**

49.2 Pounds

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 measures 0.47 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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

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.

**IMAGING PERFORMED BY**

Dr. Lucas Budden

**Pancreas**

The area of 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.

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**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.

**REFERRING VET**

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**ULTRASONOGRAPHIC FINDINGS**

**INVOICE**

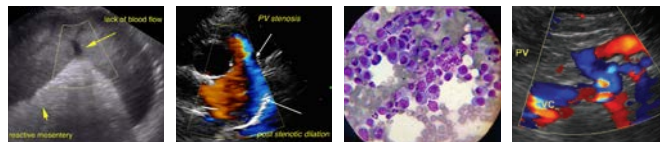
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- Thickened, irregular urinary bladder wall – Recommend urinalysis and culture.
- Large, complex, mixed echogenic, mildly cavitated mass effect visualized in the left cranial abdomen – Findings are most consistent with a large splenic mass lesion. This mass distorts the splenic capsule. Differentials include : benign lesions ( lymphoid hyperplasia, hemangioma etc..) or cancerous lesions (hemangiosarcoma, lymphoma, histiocytic sarcoma etc..)

**DATE**

8/23/23

- Heterogeneous liver with a small hyperechoic nodule and a large cystic structure – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis,



**PATIENT**

toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The cystic structure is most consistent with a large benign hepatic cyst.

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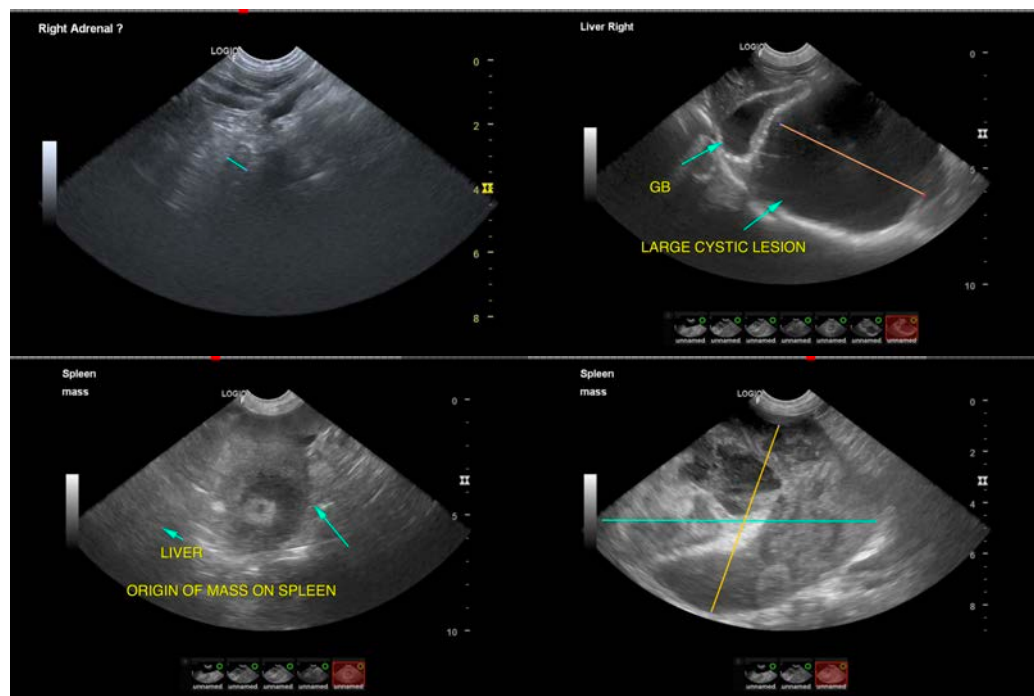
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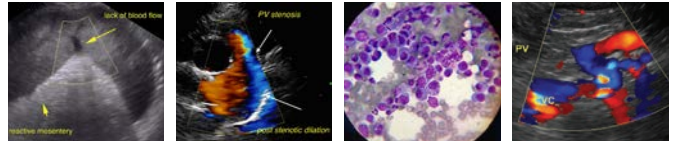
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is a large mixed echogenic mass effect visualized in the left cranial abdomen. This is strongly suspected to originate from the spleen, although an association with the liver cannot be definitively ruled out. The liver is somewhat heterogeneous and there is a large hypoechoic structure visualized near the gallbladder, most consistent with a benign hepatic cyst. Options moving forward would include for likely splenectomy and possibly drainage of the hepatic cyst (with the knowledge that it will likely recur), or you could consider a contrast CT scan to further evaluate the mass effect and the cystic structure in hopes that the cystic structure could possibly be surgically removed for a more definitive outcome.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

The urinary bladder wall appears slightly irregular and thickened. Recommend urinalysis and culture.





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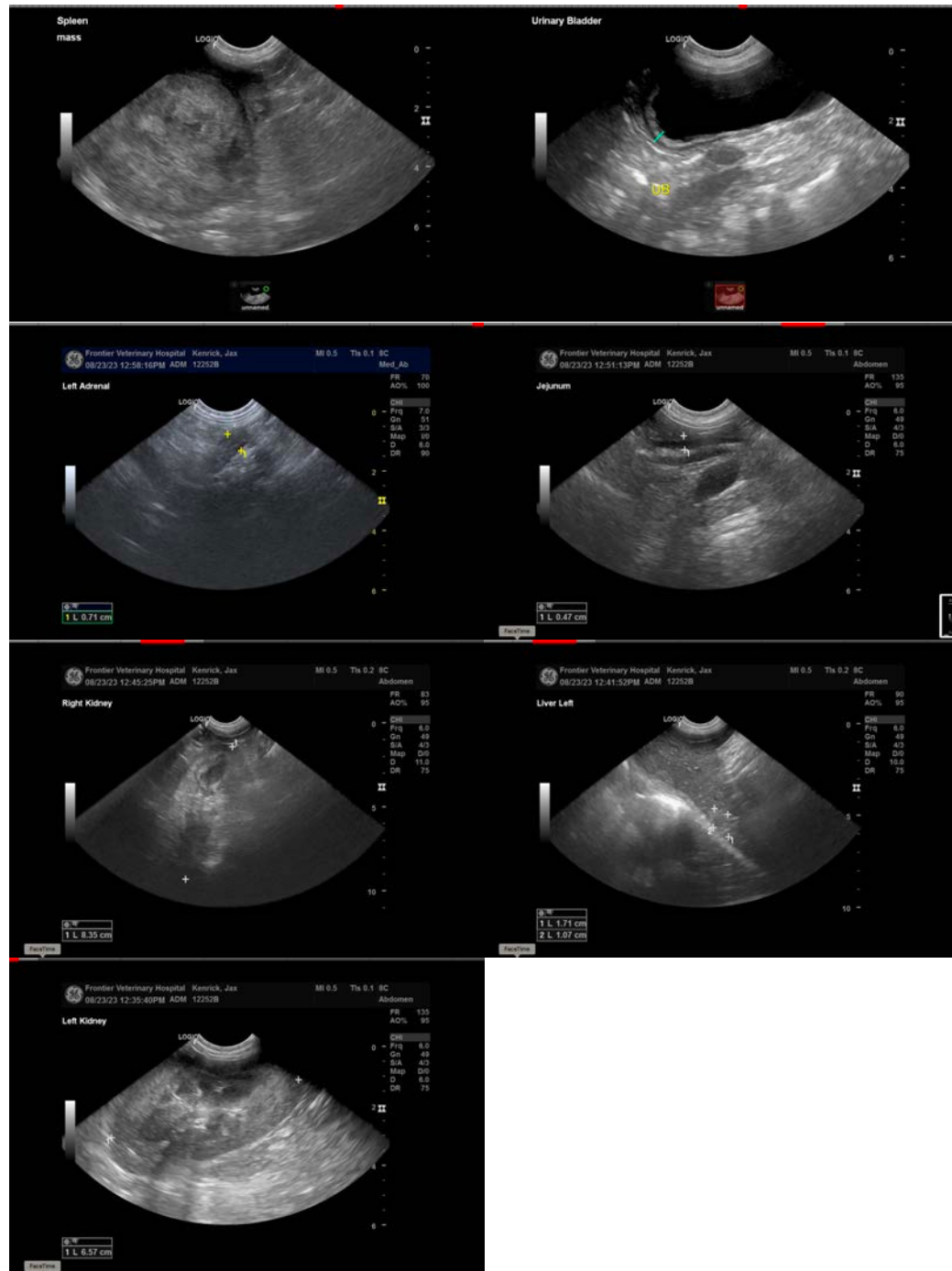
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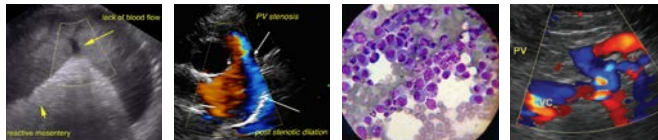
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Canine

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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Lab X

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

**SEX**

Neutered Male

info@sonopath.com

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9 Years 9 Months

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