



**PATIENT**

Miss Hudson  
Castineira

**SPECIES**

Canine

**BREED**

Boston Terrier

**SEX**

Spayed Female

**AGE**

13 Years

**WEIGHT**

23 lbs

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Meghan Morse, LVT,  
CVT

**HOSPITAL NAME**

Kingston Animal  
Hospital

**REFERRING VET**

Dr. Alden

**INVOICE**

73046

**DATE**

2/18/26

**PRESENTING CLINICAL SIGNS**

New onset of increased kidney values.

Abnormal PE/Chem/CBC/UA Results: BUN 52, Na/K 25, Lipase 385, Phos 6.7, ALT 188, K+ 6.0, ALP 1667 U/A: UPC 5.0, USG 1.024

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**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.

The left kidney has a normal shape and size (4.42 cm) with occasional small cortical cyst. Overall echogenicity is slightly hyperechoic with mildly reduced 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.

The right kidney has a normal shape and size (4.84 cm) with small cortical cysts. Overall echogenicity is slightly hyperechoic with mildly reduced 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.

**Adrenal Glands**

The left adrenal gland is large, measuring 0.60 cm at the cranial pole and 0.79 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.

The right adrenal gland is borderline "plump" measuring 0.74 cm at the cranial pole and 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.

**Spleen**

The spleen is subjectively normal in size (1.49 cm), echotexture is homogenous, and 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.

**Liver**

The liver is large in size, and hyperechoic 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 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 duct and proximal bile duct are prominent and mildly dilated, measuring 0.50 cm. It is lost to visualization distally.



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***Gastrointestinal***

The stomach contains mild gas. In several views the gastric wall appears somewhat thickened and irregular, measuring up to 0.93 cm. 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. Duodenum wall measures 0.46 cm. Jejunum wall measures 0.36 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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 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.

***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.

**ULTRASONOGRAPHIC FINDINGS**

- Borderline “plump” adrenal glands – Findings could be consistent with anatomic variation, mild hyperplasia, etc.
- Age related changes visualized associated with both kidneys.
- Large, heterogeneous, hyperechoic liver – The diffuse hepatic changes are non-specific and can be seen with vacuolar hepatopathy, reactive change, nodular hyperplasia or, less likely, inflammatory/immune-mediated disease, infiltrative neoplasia, or other hepatopathy.
- Moderate gallbladder debris with a prominent/dilated proximal bile duct – 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.
- Subjectively thickened gastric wall – The stomach wall thickening could be consistent with inflammation, edema, infiltrative neoplasia, imaging artifact due to rugal folds, other.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The liver is very large, hyperechoic and heterogeneous, most consistent with a vacuolar hepatopathy, although other hepatopathies are possible. Additionally, both adrenals are somewhat “plump”. If symptoms consistent with Cushing’s are present, you could consider adrenal function testing.



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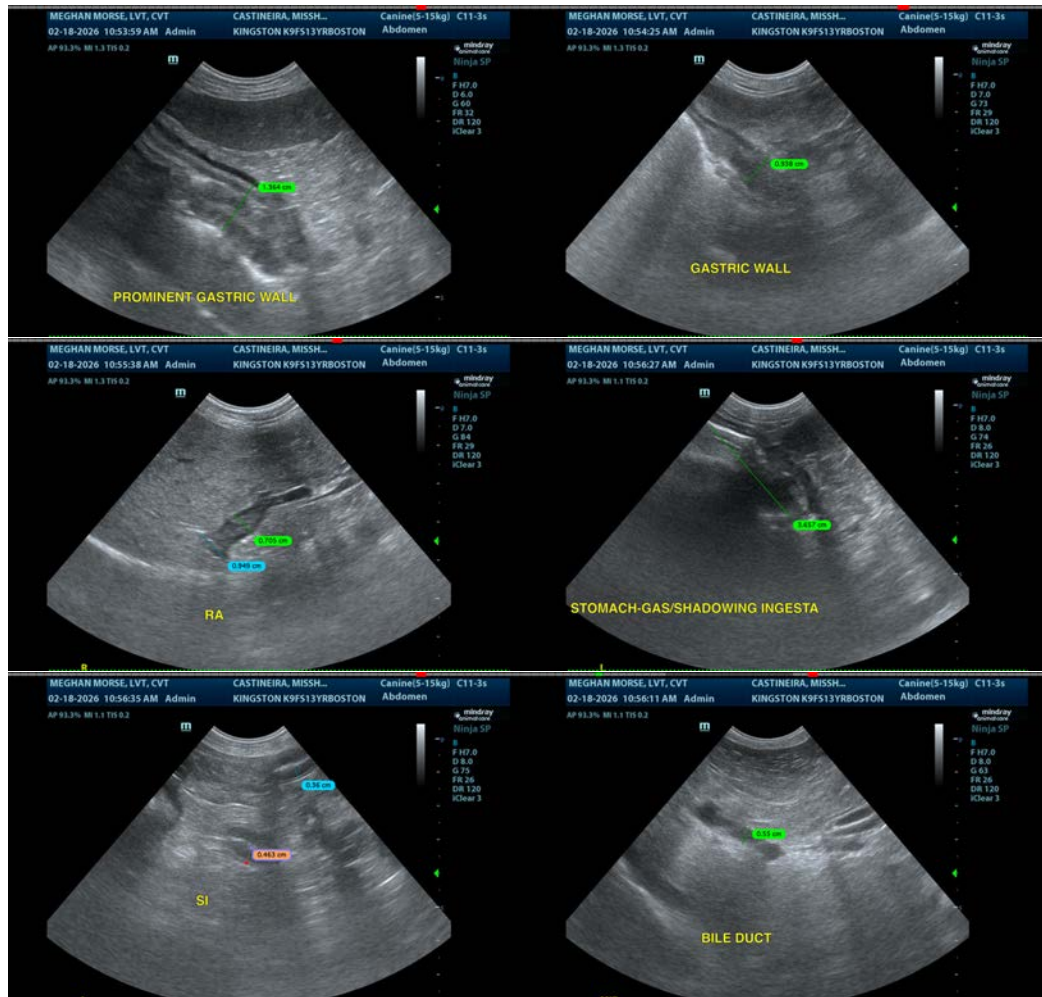
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Both kidneys have changes consistent with age related renal changes. Recommend a blood pressure, urinalysis and culture to further evaluate. Additionally, consider confirmation of the elevation in urine protein to creatinine ratio with a pooled sample (3 samples collected over the course of a day and pooled to determine if the proteinuria is repeatable, as treatment may be recommended).

There is a moderate amount of debris in the gallbladder, and a prominent/dilated proximal bile duct, which is lost to visualization distally. Options would include continued monitoring with ultrasound, or you could consider chronic Ursodiol therapy and continued monitoring in case of significant cholecystitis.

The gastric wall appears thickened in many views but not all views. This could be concerning for gastritis, an early neoplastic change, or even imaging artifact. Correlate these findings with stool consistency (checking for melena, etc.), and checking albumin levels, as concurrent gastrointestinal disease could be present, which would cause a BUN elevation if gastric ulceration were present.

If further evaluation of the liver is desired and/or round cell neoplasia is a significant concern, you could consider a fine needle aspirate of the liver (provided coagulation parameters are normal) for cytologic evaluation.





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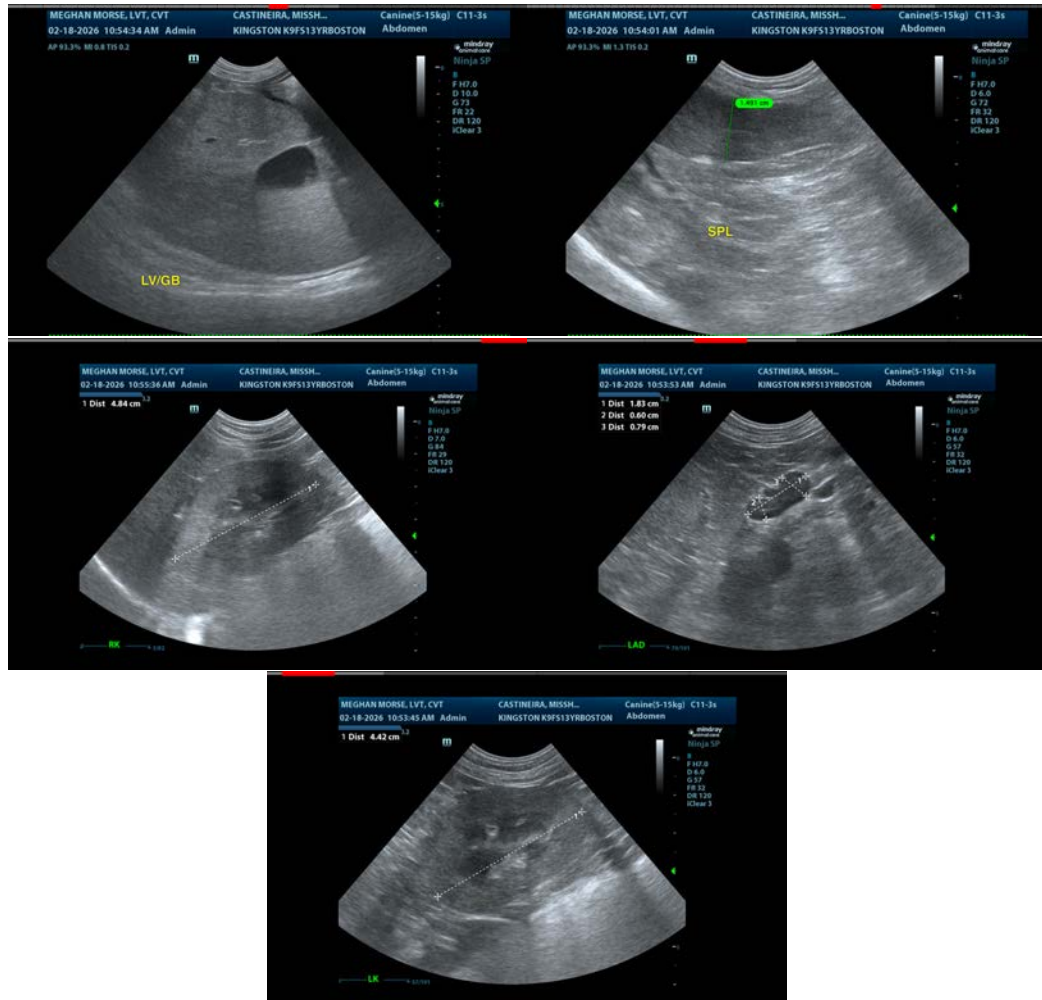
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@sonopath.com