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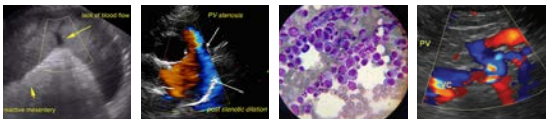

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dbimaginesound@gmail.com 917-647-4318

PATIENT

Bella Lu

SPECIES

Canine

BREED

Pomeranian X

SEX

Spayed Female

AGE

15 Years 6 Months

WEIGHT

16.6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Denise Bruno, LVT, RDMS

HOSPITAL NAME

Brooklyn Heights VH

REFERRING VET

Dr. Thomson

INVOICE

39832

DATE

7/26/22

PRESENTING CLINICAL SIGNS

Adrenals mass –Evaluate for Adenoma vs Pheochromocytoma. Meds - Hydrocodone 5mg 1/2 Tid, Amlodipine 2.5mg 1/2 tab Sid. Presented last week for TIA. Radiographs, labs and AUS attached.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall largely appears normal, but in the apical portion there is some slight mucosal irregularity. The area of the trigone, ureteral papillae and proximal urethra appear normal with no evidence of mass effects or calculi. Findings are most consistent with cystitis or lack of urine distention.

The left kidney has a normal shape and size (4.17 cm) with mild pyelectasia at 0.16 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.99 cm) with mild pyelectasia at 0.24 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is borderline large in size measuring 0.42 cm at the cranial pole, 0.69 cm at the caudal pole, and 2.13 cm in length. It is observed in its normal position cranial to the left renal artery. It is generally fairly normal in appearance, although the caudal pole is slightly prominent. There is no evidence of vascular invasion.

The right adrenal gland is normal in size measuring 0.45 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. 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 is ill-defined, hyperechoic mottling throughout the parenchyma. No discrete focal lesions are observed.

Liver

The liver is large in size, and normal in 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 gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. There is a small hyperechoic focus near the neck of the gallbladder measuring 0.30 cm, most consistent with a small stone or hyperechoic debris. The cystic and common bile ducts are normal/not visible.

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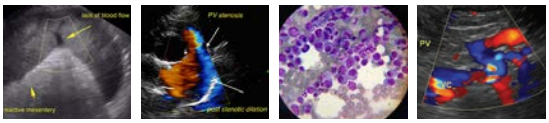

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Gastrointestinal

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. Duodenum wall measured 0.42 cm. Jejunum wall measured 0.36 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, 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

- Mildly irregular bladder wall surface – most consistent with bacterial cystitis or lack of urine distention. Recommend urinalysis and culture.
- Prominent caudal pole of the left adrenal gland – While no discrete mass effect is observed, this adrenal gland is significantly larger than the right side. The appearance of this adrenal has not changed in the last 12 months, so it is likely consistent with anatomic variation, PDH, etc. Recommend continued monitoring.
- Decreased corticomedullary distinction in both kidneys with mild pyelectasia – The bilateral renal findings are consistent with age-related change. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- 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. Subjectively, the lesions observed in the spleen are more consistent with benign changes, as they are hyperechoic and ill-defined.
- Large, 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, hyperechoic foci near the gallbladder neck – Recommend continued monitoring. This likely represents debris or small mineralization.

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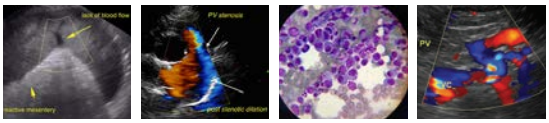

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes observed on today's scan appear relatively similar to those observed on the previous scan (12/20/21). The bladder wall appears slightly irregular. Recommend urinalysis and culture to evaluate for possible cystitis.

The left adrenal gland is slightly enlarged at the caudal pole, but there is no discrete mass or nodule, and it is stable from the last scan.

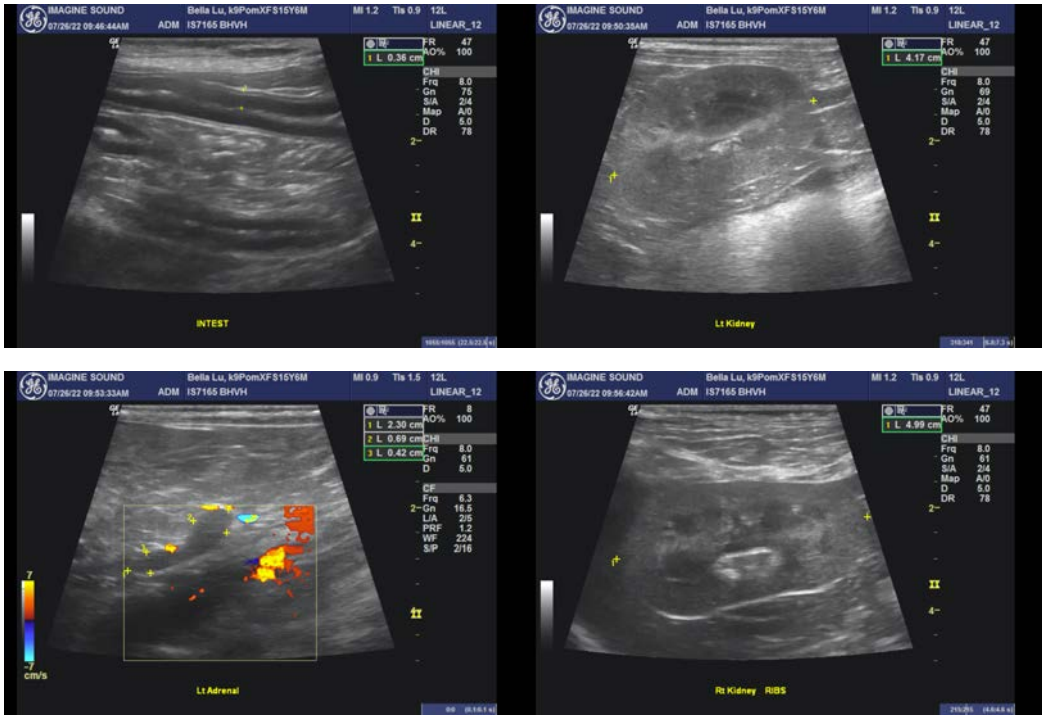
The renal changes observed are consistent with chronic progressive renal disease/age related renal disease. Recommend blood pressure evaluation and urinalysis and culture.

The spleen is mildly mottled. This is subjectively more benign in appearance, as it is hyperechoic mottling. Options moving forward include continued monitoring or a fine needle aspirate.

The liver is heterogeneous. Much of this could be age related change, but additionally a vacuolar hepatopathy or less likely infiltrative disease is possible. If there is concern for significant liver dysfunction, consider a liver function test. A fine needle aspirate of the liver could be considered if round cell neoplasia is a concern.

Additionally, of signs of Cushing's are present, you could consider adrenal function testing to evaluate for a possible steroid hepatopathy.

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



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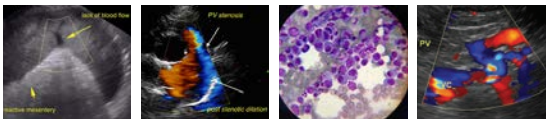

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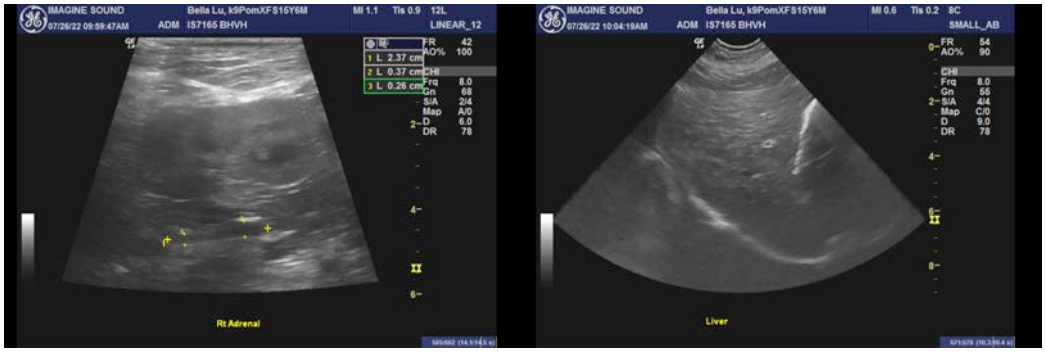

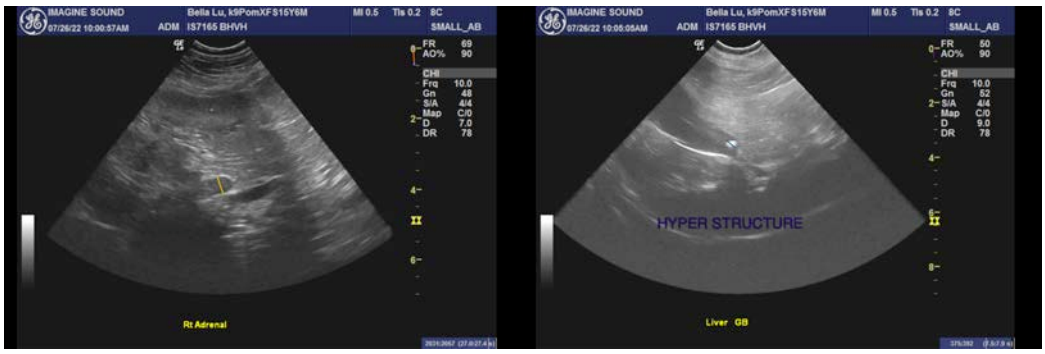

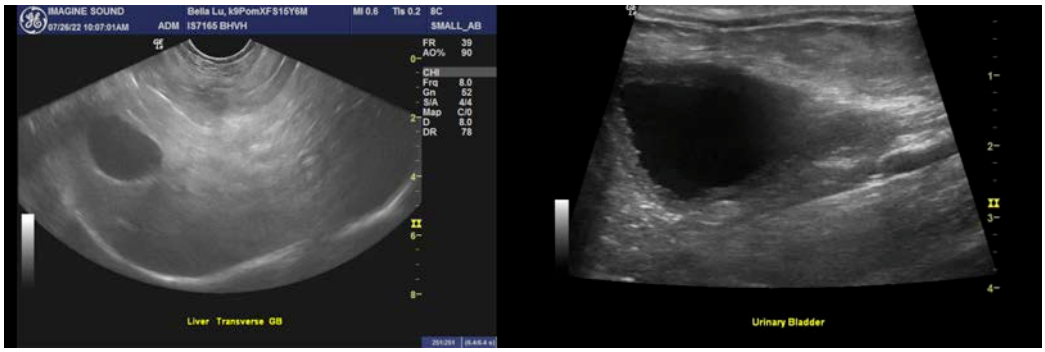

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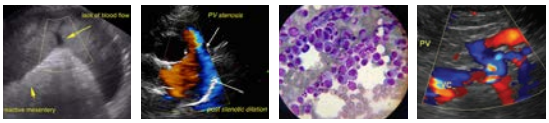

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

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