



PATIENT

Tommy Ma

PRESENTING CLINICAL SIGNS

History of hepatitis/possible hypertension. Proteinuria. History of coughing - echo pending Labs, Radiographs and previous AUS attached

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Shiba Inu

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Small mineral foci are noted along the dependent wall throughout the bladder, trigone, urethra, extending all the way to the intraprostatic urethra. All of the mineral appears to be intraluminal, but mineral embedded within the mucosa cannot be definitively ruled out.

SEX

Neutered Male

Prostate is normal in size, echotexture and echogenicity for a neutered male.

AGE

13 Years 4 Months

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. Non-obstructive areas of mineralization/nephroliths are noted. The left kidney measures 4.92 cm. The right kidney measures 4.99 cm.

WEIGHT

34.8 Pounds

Adrenal Glands

The right adrenal gland is normal in size (2.9 cm long x 0.84 cm at the cranial pole and 0.89 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

The left adrenal gland is normal in size (1.86 cm long x 0.49 cm at the cranial pole and 0.70 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Denise Bruno, LVT,
RDMS

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

HOSPITAL NAME

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Liver

The liver is subjectively enlarged in size with a swollen contour and a mildly coarse architecture. Mildly increased portal markings and subtle mixed echogenic changes noted. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

REFERRING VET

Dr. Thomson

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

INVOICE

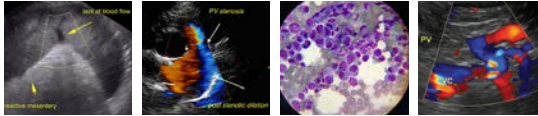
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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

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The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

SPECIES

Canine

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

BREED

Shiba Inu

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

SEX

Neutered Male

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

AGE

13 Years 4 Months

PRIMARY FINDINGS

WEIGHT

34.8 Pounds

- **Benign hepatopathy** – most consistent with vacuolar hepatopathy and possibly some age related remodeling. Residual or mild inflammatory component cannot be ruled out and should be interpreted in combination with laboratory changes.
- **Gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- **Chronic Cystitis with mineral sand/small cystoliths noted throughout the bladder and proximal urethra** - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.

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SECONDARY FINDINGS

- **Age related kidney changes with bilateral non-obstructive nephrolithiasis**

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The described adrenal gland, liver and gallbladder changes are all suggestive of hyperadrenocorticism. If clinical signs of hyperadrenocorticism, such as polyuria, polydipsia, polyphagia, panting, hair loss, hypertension, etc. are present, testing for hyperadrenocorticism with a LDDS test is warranted. If a LDDS test has been evaluated with a normal result, investigation of possible atypical hyperadrenocorticism with a full ACTH stimulation adrenal panel to the University of Tennessee could be considered. If clinical signs are not present, monitoring is recommended with testing pursued when/if clinical signs develop. Regardless of clinical signs, if not recently evaluated, blood pressure is recommended. Regardless of clinical signs, if not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are also recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

REFERRING VET

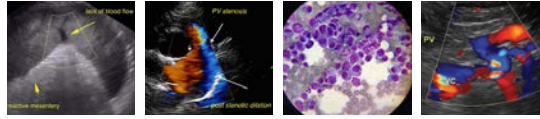
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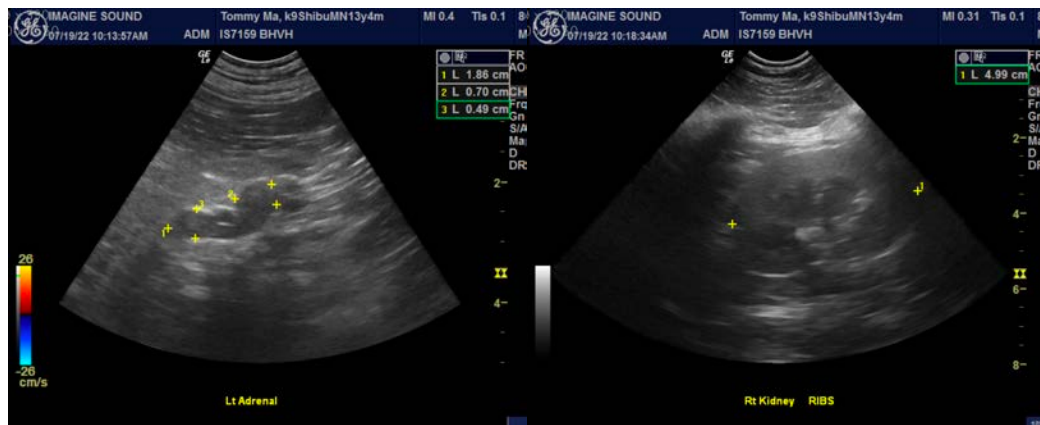
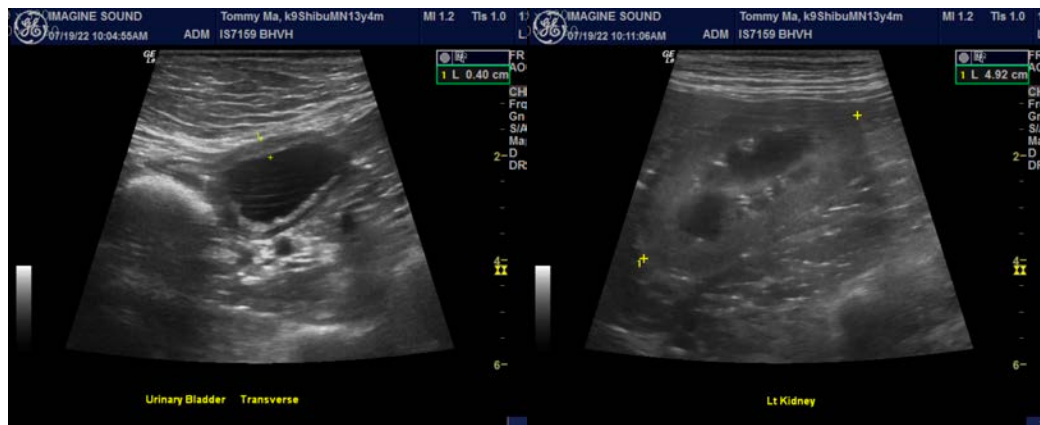
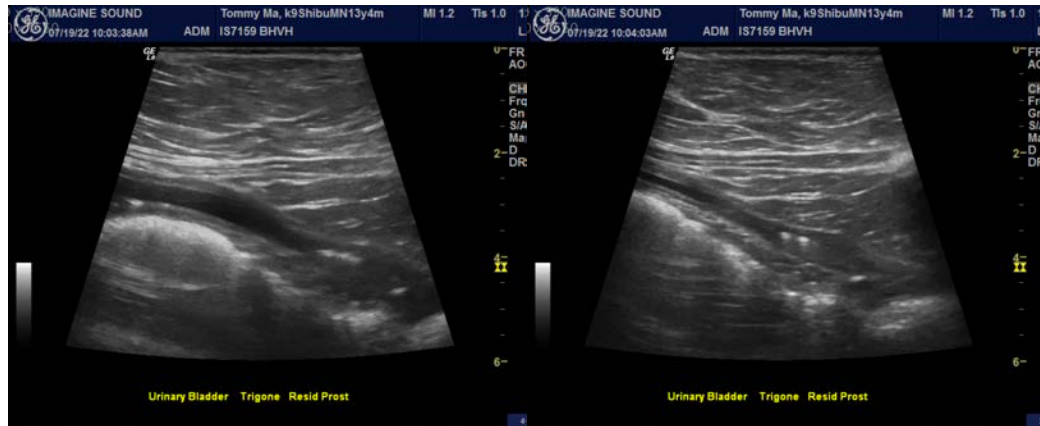
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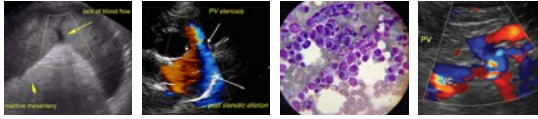
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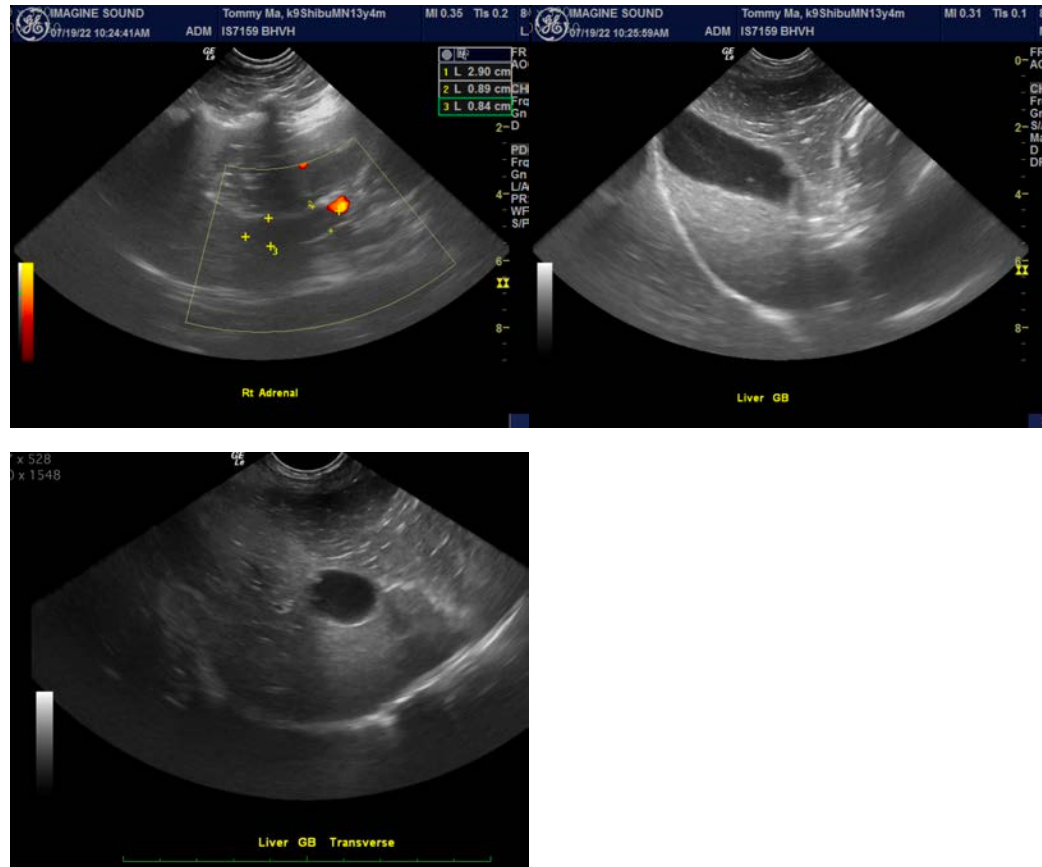
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
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