



PATIENT

Lyrice Johnson

SPECIES

Canine

BREED

Chihuahua x

SEX

Neutered Male

AGE

13 Years

WEIGHT

12

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Jessica Green

HOSPITAL NAME

Stanglein Veterinary
Clinic

REFERRING VET

Dr. Erin Rothrock

INVOICE

71903

DATE

11/18/25

PRESENTING CLINICAL SIGNS

Patient was evaluated 11/12 for hematuria and no other clinical signs at home. Physical exam fairly unremarkable for as 13 yo dog. History of CaOx stones removed via cystotomy April 2024 current meds: Potassium citrate 675 mg 1/2 t PO BID; Clavamox 62.5 mg 1 1/4 t PO q12hr

Abnormal PE/Chem/CBC/UA Results: CBC/Chem/lytes: Moderate thrombocytosis (684 K/uL), mildly decreased creatinine (0.4 mg/dL), mild hypochloremia (105 mmol/L), mild to moderate elevation of ALT (396 U/L), mild elevation of ALKP (353 U/L), moderate elevation of AST (176 U/L), mild hyperbilirubinemia - conjugated (0.2 mg/dL), mild hypercholesterolemia (352 mg/dL) Urinalysis: USG 1.029, pH 8.0, 2+ blood, 75-100 RBC, 2+ ammonium mg phosphate crystals (6-20/HPF), amorphous phosphates present Rads: Obvious urolithiasis, otherwise unremarkable

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately distended with anechoic contents. No masses or inflammatory changes are observed. Multiple cystoliths are suspected, with an exact number difficult to determine due to the stones appearing to lay in piles, the largest of which, however, appears to measure approximately 1.0 cm. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

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

The right kidney is normal is size (4.75 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal is size (4.74 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is normal in size (0.59 cm at cranial pole and 0.44 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.62 cm at cranial pole and 0.72 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

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.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is moderately heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion



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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.

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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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The visible small intestines are normal in wall thickness and layering. 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.

SEX

Neutered Male

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

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Pancreas

Pancreas is prominent (enlarged) in size and mildly irregular in shape with a slightly undulating contour. Parenchyma is coarse in echotexture and heterogenous to hypoechoic in echogenicity.

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Free Abdomen

There is no visible free peritoneal effusion noted in these images.

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There is no apparent pathologic lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

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- Moderately heterogenous liver - These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- Moderate 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 low-grade smoldering pancreatitis can't be ruled out and should be suspected in the face of appropriate clinical signs.
- Multiple cystoliths.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given urinalysis results, a urine culture is recommended to help further investigate possible infection induced stones and determine whether any dissolution procedure can be considered.

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If not dissolvable, removal of the stones via the least invasive way available may ultimately be warranted.



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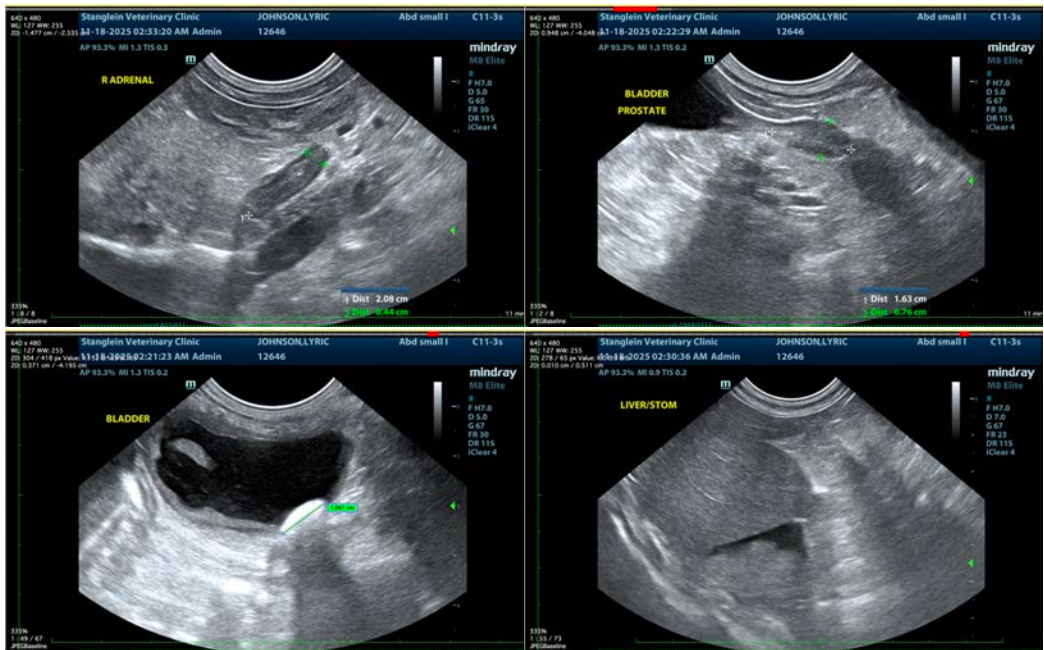
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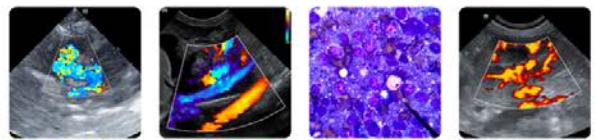
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While likely unrelated to patient's reported urinary signs, concurrent underlying disease could be contributing to the increased liver enzymes.

Differentials for a primary cholestatic liver enzyme pattern (increased ALP) are vast and non-specific. Differentials include, but are not limited to, benign nodular hyperplasia which occurs in 70% of older dogs and often does not result in an abnormal ultrasound, reactive or idiopathic/vacuolar hepatopathy, cholestasis and/or hyperadrenocorticism as well as many chronic non-hepatobiliary diseases such as chronic infections/inflammation from dental disease, IBD, neoplasia, hyperlipidemia, hypothyroidism, chronic pancreatitis, chronic stress, etc.

- Adrenocortical testing such as a low dose dexamethasone suppression test could be considered if clinical signs of hyperadrenocorticism are present.
- Given the gallbladder debris noted, empirical hepatic nutraceuticals including Ursodiol could be considered while monitoring liver enzymes for improvement.
- A fine needle aspirate of the liver could be considered if patient's coagulation status is appropriate.
- Otherwise, recommendations include addressing any other concurrent disease and monitoring. If values are progressive, recheck imaging is recommended.





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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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