



PATIENT PRESENTING CLINICAL SIGNS

Blue Robinson

History: Blue is a 12-13 yo MN DSH who presented for ongoing weight and moderate decrease in appetite. O reports that he has been losing weight for a couple of months. He has become a very picky eater, and while he is still eating, she is struggling to find food that he will eat consistently. There has been no vomiting or diarrhea. Not lethargic, seems to be behaving normally otherwise. CBC - mild leukocytosis characterized by neutrophilia and monocytosis (stress?) CHEM - mild increased in SDMA, TBIL, lipase

SPECIES

Feline

BREED

Russian Blue Mix

SEX

Neutered male

AGE

12 years

WEIGHT

3.3 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

JSS

HOSPITAL NAME

King Hopkins Pet
Hospital

REFERRING VET

Dr. Dzikewicz

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31452

DATE

7/3/22

Abnormal PE/Chem/CBC/UA Results: Patient Name: Blue Species: Feline Client: Robinson, Sue (8676) Doctor: Dr. Tamara Dzikewicz, DVM Gender: Male/Castrated Weight: 0.00 kgs Age: 12 Years King Hopkins Pet Hospital Breed: Test Results Reference Interval LOW NORMAL HIGH RBC 6.70 x10¹²/L 6.54 - 12.20 9.48 x10¹²/L HCT 34.3 % 30.3 - 52.3 46.6 % HGB 11.1 g/dL 9.8 - 16.2 14.2 g/dL MCV 51.2 fL 35.9 - 53.1 49.2 fL MCH 16.6 pg 11.8 - 17.3 15.0 pg MCHC 32.4 g/dL 28.1 - 35.8 30.5 g/dL RDW 20.6 % 15.0 - 27.0 22.1 % RETIC 0.7 % 0.3 % RETIC 46.2 K/ μ L 3.0 - 50.0 26.5 K/ μ L RETIC-HGB 22.5 pg 13.2 - 20.8 HIGH WBC 22.72 x10⁹/L 2.87 - 17.02 * 10.29 x10⁹/L HIGH %NEU 68.4 % * 52.4 % %LYM 20.2 % * 37.9 % %MONO 8.3 % * 4.2 % %EOS 2.4 % * 4.5 % %BASO 0.7 % * 1.0 % NEU 15.55 x10⁹/L 2.30 - 10.29 * 5.40 x10⁹/L HIGH LYM 4.58 x10⁹/L 0.92 - 6.88 * 3.90 x10⁹/L MONO 1.88 x10⁹/L 0.05 - 0.67 * 0.43 x10⁹/L HIGH EOS 0.55 x10⁹/L 0.17 - 1.57 * 0.46 x10⁹/L BASO 0.16 x10⁹/L 0.01 - 0.26 * 0.10 x10⁹/L PLT 485 K/ μ L 151 - 600 26 K/ μ L MPV 18.4 fL 11.4 - 21.6 16.8 fL PCT 0.89 % 0.17 - 0.86 0.04 % HIGH ProCyte Dx (June 26, 2022 7:15 PM) 01/08/17 7:49 PM * Confirm with dot plot and/or blood film review. 1. Monocytosis - Consider inflammation (if lymphopenia, consider glucocorticoid response). Printed: June 26, 2022 7:49 PM Page 1 of 2 Patient Name: Blue Species: Feline Client: Robinson, Sue (8676) Doctor: Dr. Tamara Dzikewicz, DVM Gender: Male/Castrated Weight: 0.00 kgs Age: 12 Years King Hopkins Pet Hospital Breed: Test Results Reference Interval LOW NORMAL HIGH GLU 7.01 mmol/L 4.11 - 8.84 6.99 mmol/L SDMA 15 μ g/dL 0 - 14 HIGH CREA 95 μ mol/L 71 - 212 117 μ mol/L UREA 12.8 mmol/L 5.7 - 12.9 7.3 mmol/L BUN/CREA 33 15 PHOS 1.31 mmol/L 1.00 - 2.42 1.09 mmol/L CA 2.33 mmol/L 1.95 - 2.83 2.30 mmol/L TP 77 g/L 57 - 89 75 g/L ALB 29 g/L 22 - 40 32 g/L GLOB 48 g/L 28 - 51 43 g/L ALB/GLOB 0.6 0.7 ALT 64 U/L 12 - 130 56 U/L ALKP 50 U/L 14 - 111 27 U/L GGT 3 U/L 0 - 4 3 U/L TBIL 21 μ mol/L 0 - 15 7 μ mol/L HIGH CHOL 2.61 mmol/L 1.68 - 5.81 4.25 mmol/L AMYL 1024 U/L 500 - 1500 1125 U/L LIPA 2118 U/L 100 - 1400 1529 U/L HIGH Na 162 mmol/L 150 - 165 K 4.5 mmol/L 3.5 - 5.8 Na/K 36 Cl 117 mmol/L 112 - 129 Osm Calc 330 mmol/kg TT4 35 nmol/L 10 - 60 Diagnostic Interpretation for TT4 < 10 nmol/L Subnormal 10 - 60 nmol/L Normal 30 - 60 nmol/L Grey zone in old or symptomatic cats > 60 nmol/L Consistent with hyperthyroidism Cats with subnormal T4 values are almost exclusively euthyroid sick or overtreated for their hyperthyroidism. Older cats with consistent clinical signs and T4 values in the grey zone may have early hyperthyroidism or a concurrent non-thyroidal illness. Hyperthyroidism may be confirmed in these cats by adding on a freeT4 (fT4) or by performing a T3 suppression test. Following treatment with methimazole, T4 values will generally fall within the lower to middle end of the reference range. SDMA: SDMA is increased, CREA within reference interval: likely impaired GFR and kidney function. Recommended next step: evaluate complete urinalysis.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

***** 16 Still Images and 1 Video was submitted*****

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.



PATIENT

Blue Robinson

The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. The right kidney measured 3.83 cm. The left kidney measured 3.32 cm.

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Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient.

SEX

Neutered male

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

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Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

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Gastrointestinal

The **gastrointestinal tract** revealed minor variable thickening and echogenic submucosal changes most consistent with low grade end result of chronic GI disease such as IBD and may be related to malassimilation of nutrients if any weight loss is present. The mesenteric lymph nodes were enlarged, nodular and irregular. The length to width ratio was largely maintained; however, lymphatic parenchyma was significantly heterogenous. FNA, cytology and culture is indicated.

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Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

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ULTRASONOGRAPHIC FINDINGS

Chronic interstitial nephrosis pattern.

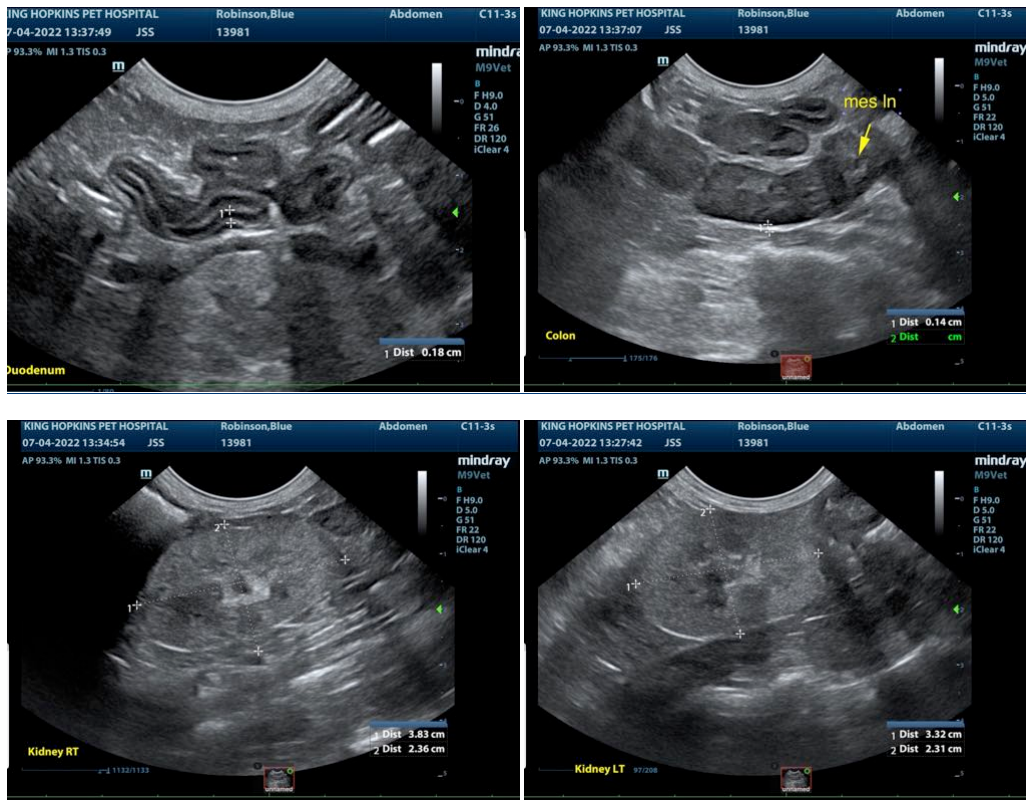
Chronic GI changes.

Mesenteric lymphadenopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Based on the still images presented and the single video the patient has chronic interstitial nephrosis pattern and chronic GI changes. The mesenteric lymph nodes are most concerning. I recommend on focusing the next diagnostic step upon ultrasound-guided FNA, cytology and culture of the mesenteric lymph nodes. Screening FNA of the spleen and liver could also be considered. I am concerned for long term viability of the kidneys as subjectively they appear end stage.

Maldigestion panel, three view chest radiographs and full CNS examination is recommended to examine for occult disease that could be responsible for the weight loss. Evaluation for competitive eating environments should also be considered.





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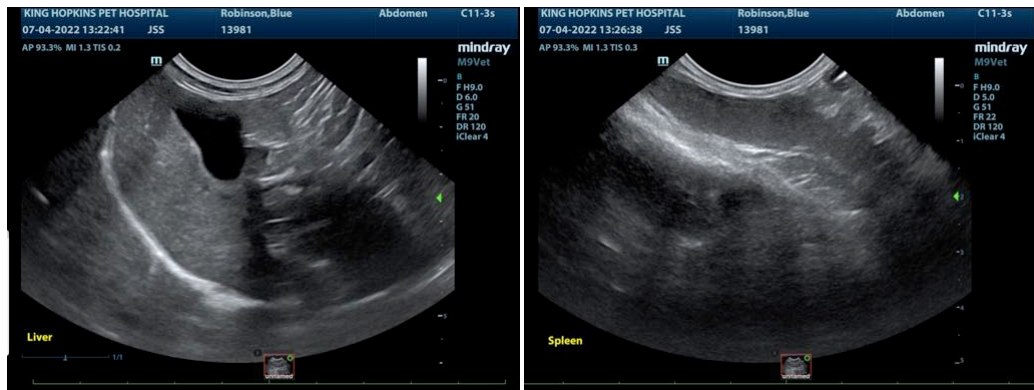
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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