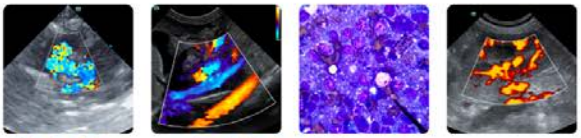


PATIENT

Maverick Santana

SPECIES

Canine

BREED

King Charles

SEX

Neutered Male

AGE

6 Years

WEIGHT

Not Provided

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Kerri Becker

HOSPITAL NAME

Millburn Veterinary Hospital

REFERRING VET

Dr. Turowsky

INVOICE

73390

DATE

3/4/26

PRESENTING CLINICAL SIGNS

Persistent regen. anemia found on pre-op bw for dental, p asymtomatic, concerns over IMHA vs. blood loss- This AM P eichlers!

Abnormal PE/Chem/CBC/UA Results: PCV this am-35% rbc-5.44 hct-41.2 hgb-12.8 retic-218 alp-550 ggt-25 tbili-1.5 chol-114

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately distended with anechoic contents as well as a very large amount of suspended echogenic, almost “smokey” appearing debris throughout the lumen and settled along the inner dependent wall. Along the apex of the bladder is an approximately 2.2 cm long x 1.2 cm thick, irregular, echogenic density that could represent tissue or settled debris. The remaining urinary bladder wall, trigone, and visible pelvic urethra are all normal in thickness and no mineral is present.

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

The right kidney is normal is size (5.61 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 (5.93 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 (0.93 cm at cranial pole and 0.50 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.51 cm at cranial pole and 0.41 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

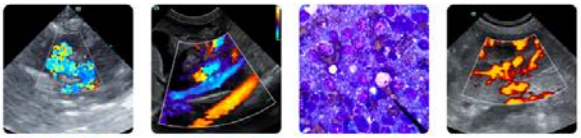
Spleen

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 normal to subjectively small in size with slightly undulating or scalloped capsular contour or margins. Patchy ill-defined areas of increased echogenicity are present with reduced visualization of vessels. No overt nodules or masses are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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.

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.

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

Pancreas

The pancreas that is observed appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

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

There is no apparent pathologic lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- Hepatic Fibrosis Pattern – This appearance is most consistent with chronic hepatitis with fibrosis and/or early cirrhosis. These changes can occasionally be seen with resolved past inflammatory episodes and should therefore be interpreted in combination with clinical signs and/or associated laboratory changes (including bile acids).

- Mild to 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.

- The very large amount of echogenic urinary bladder debris could represent blood/hemorrhage, given patient's history, although other debris is also possible. The apical wall changes described above could represent settled debris, a blood clot, other non-tissue densities, although a thick wall with both benign inflammatory differentials and infiltrative neoplastic differentials can't be ruled out without additional information.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended. Additionally, submission of urine to look for BRAF gene mutation is recommended.

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

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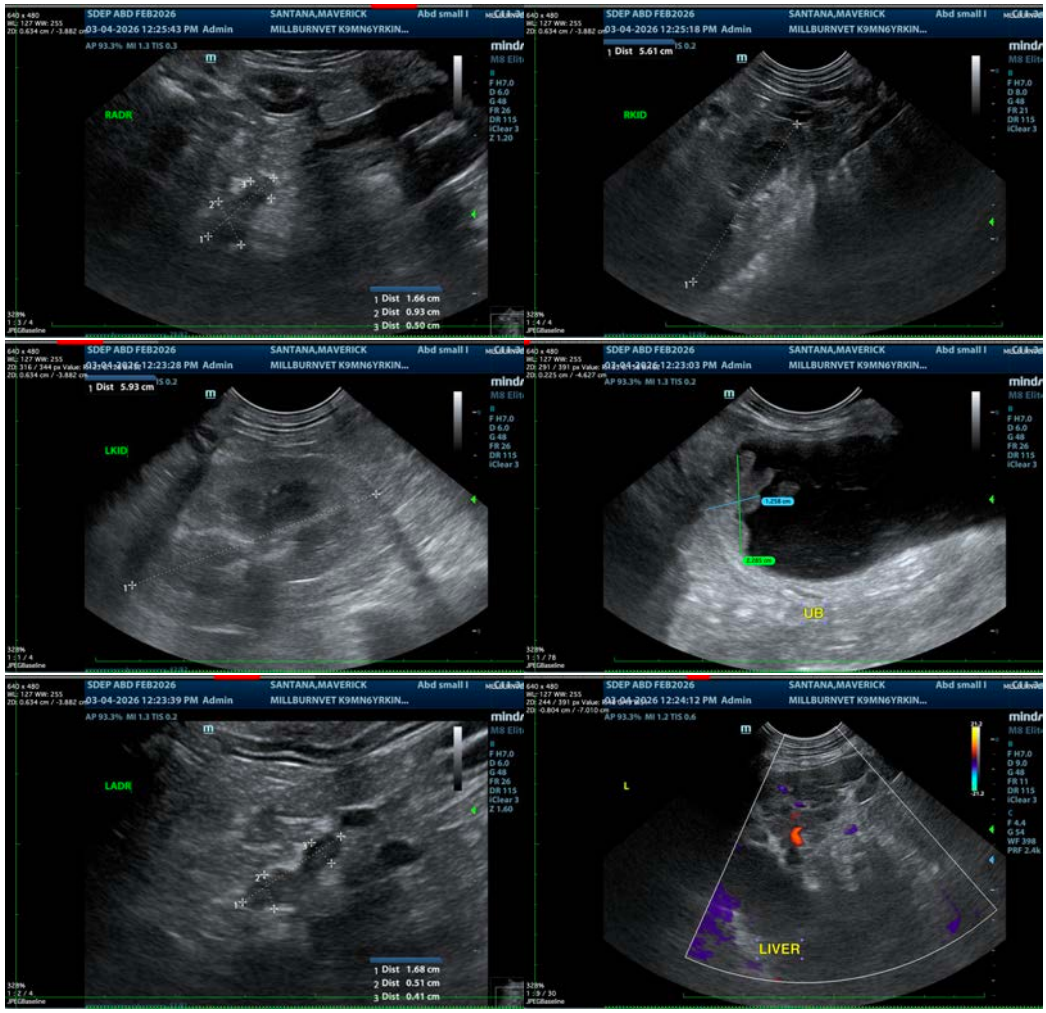
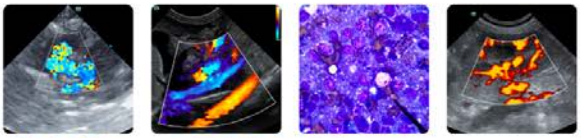
Assessment of patient's coagulation status is recommended, given the possibility of potentially decreased liver function resulting in a coagulopathy and potentially hemorrhage contributing to the anemia as one differential to link all the historical and visible pathology.

Bile acids are recommended only if/when patient's total bilirubin is not increased. Ultimately, however, liver sampling is recommended. A fine needle aspirate could be considered if patient's coagulation status is appropriate, but given the appearance of the liver, I suspect a liver biopsy will be necessary, being sure to include copper level assessment, if possible, for definitive diagnosis and therefore to further guide medical management.





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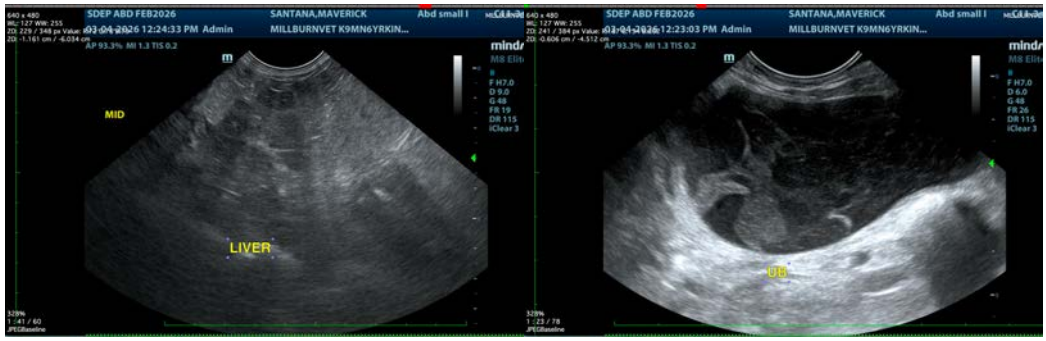

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
info@sonopath.com