IMAGING PERFORMED BY

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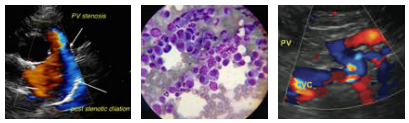

SonoPath
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DATE
9/13/21

PATIENT
Hops Murray

SPECIES
Canine

BREED
Australian Shepherd

SEX
Neutered male

AGE
1/31/14

WEIGHT
73.1 lbs

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

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. Jones

INVOICE
91792

PRESENTING CLINICAL SIGNS

Presenting Complaint: diarrhea; vomiting.
History: (09-10-2021) Last few days patient has been acting more lethargic and has eaten very little - last night ate some chicken + rice, then vomited back up. He also had diarrhea on car ride here. He got into the trash a few weeks ago; no recent dietary indiscretion. Changed food from weight management to steak version - both Pedigree. This happened days before signs started.
Assessment: ADR; vomiting; diarrhea; anorexia; fever. R/O: FBO, gastroenteritis, pancreatitis, metabolic dz. other
Plan: Rec BW + rads to start, owner consents. Discussed BW = elevated LES, unknown cause. R/O infection, inflammation, neoplasia, GI disease or pancreatitis. Recommended ATH for aggressive fluid therapy and supportive care. Concern for low platelets - need blood smear, hopefully they are clumped and in adequate number but if low, will need to focus on why.
Current Medications: Amoxicillin, Gabapentin, Omeprazole, Metronidazole, Entyce, Doxycycline, Buprenorphine, Pantoprazole, Cerenia.
Lab Results: attached: elevated LES, decreased platelet count. Agglutination, Slide: decreased platelet numbers, avg ~3 per hpf.
Radiographs: possible splenomegaly on lateral rad (vs. positioning); decreased detail, no obstructive pattern.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: not needed
Stat Report: not requested

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.68 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (7.08 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.62 cm at the caudal pole It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.64 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 large 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. The mottling is severe and distinct enough in some areas to be described as small, hypoechoic, coalescing nodules.

Liver
The liver is subjectively normal/small in size, and echogenicity with slightly irregular 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 gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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
Scant anechoic free fluid was noted. There is a severe mesenteric lymphadenopathy present. Most notably the sublumbar lymph node measured at 2.1 x 4.0 cm and appears to deviate the vena cava somewhat. Additional, mesenteric lymph nodes are visualized at 2.4 x 1.7 cm and 1.9 x 1.18 cm. The splenic lymph node is additionally enlarged at 1.5 cm. The omentum is of increased echogenicity in the area around the spleen and enlarged lymph nodes. No pericardial effusion.

ULTRASONOGRAPHIC FINDINGS
PRIMARY FINDINGS:

- Large, severely mottled/nodular 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. Neoplastic process is suspected.

- Slightly, irregular, hypoechoic and heterogenous 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.

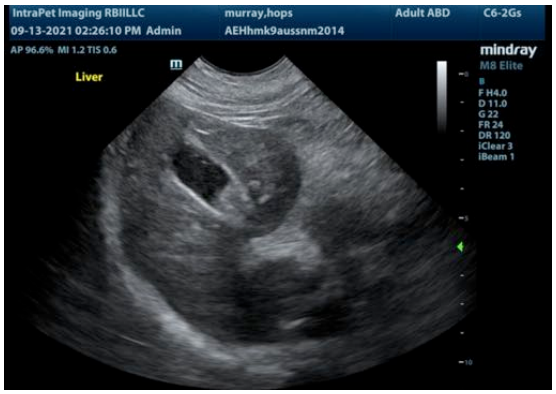
- Severe mesenteric lymphadenopathy. The moderate/severe mesenteric lymphadenopathy is most concerning for a neoplastic process, although you can see significant lymphadenopathy in some cases of autoimmune/inflammatory disease, infectious disease(tick born disease-such as Bartonella, fungal infections, etc.. A fine needle aspirate with cytology is recommended for further evaluation.

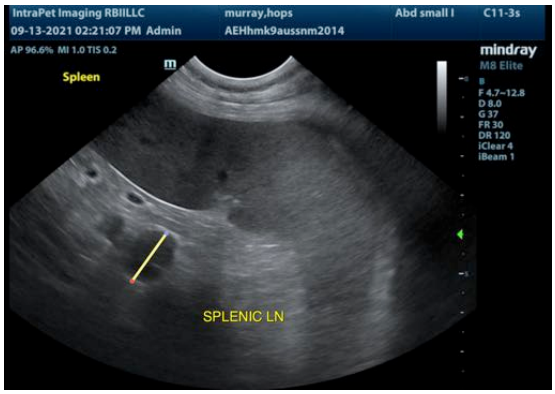
SECONDARY FINDINGS:

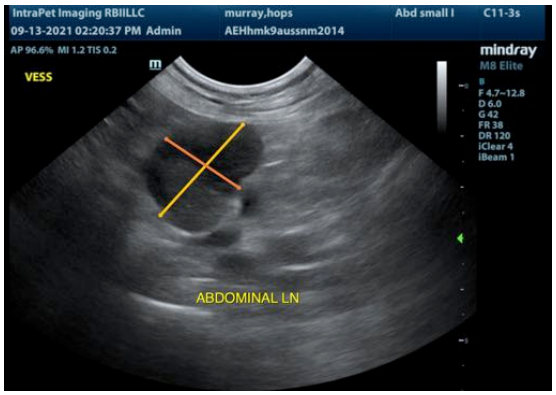
- Minor gallbladder sludge. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

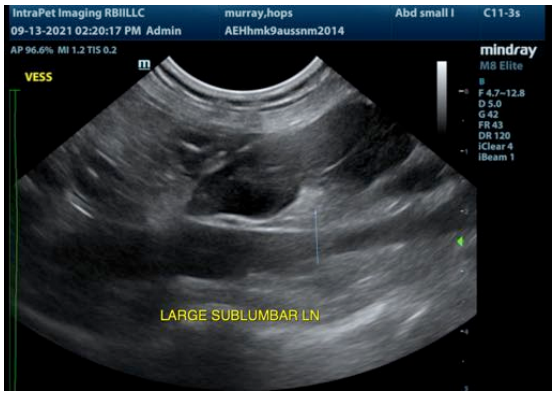
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

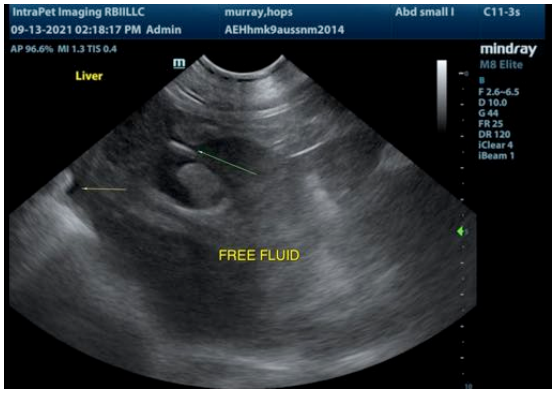
The biliary tract appears fairly normal, so the elevated bilirubin is likely due to a primary hepatopathy. The mesenteric lymph nodes are very enlarged along with a very atypical spleen. I recommend FNA of the spleen, liver and mesenteric lymph nodes. I recommend three view thoracic radiographs. Round cell neoplasia would be a primary concern.







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murray,hops
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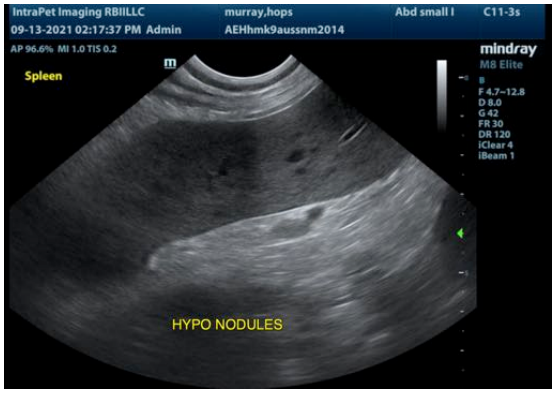
AP 96.6% MI 1.3 TIS 0.4
mindray
M8 Elite
Liver
FREE FLUID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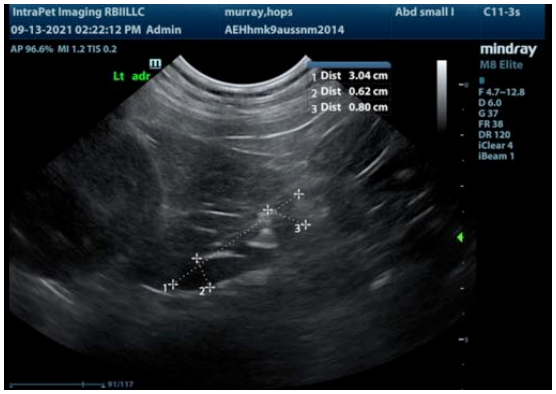
M8 Elite
Spleen
HYPO NODULES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murray,hops
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C11-3s
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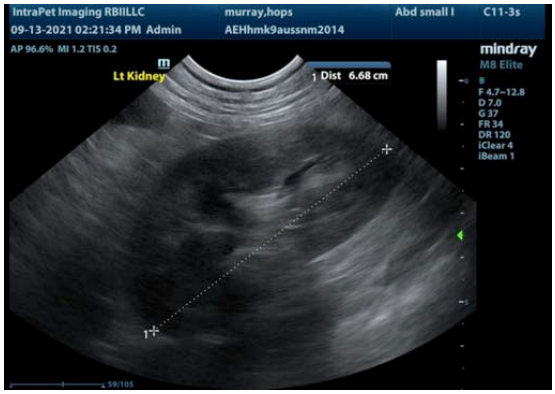
AEHhmk9aussnm2014
AP 96.6% MI 1.2 TIS 0.2
mindray
M8 Elite
1 Dist 3.04 cm
2 Dist 0.62 cm
3 Dist 0.80 cm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C11-3s
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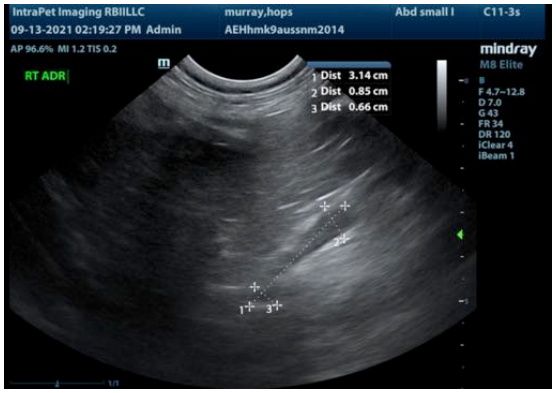
AP 96.6% MI 1.2 TIS 0.2
mindray
M8 Elite
Lt Kidney
1 Dist 6.68 cm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murray,hops
Abd small I
C11-3s
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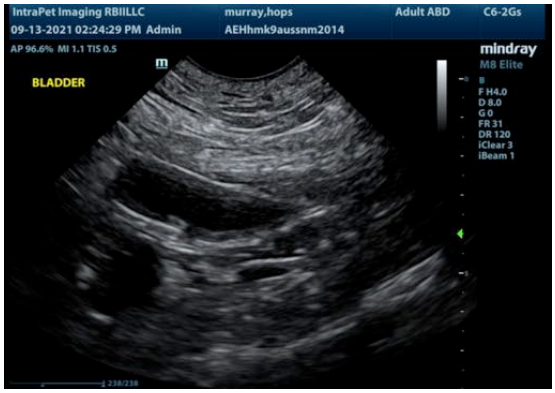
AEHhmk9aussnm2014
AP 96.6% MI 1.2 TIS 0.2
mindray
M8 Elite
RT ADR
1 Dist 3.14 cm
2 Dist 0.85 cm
3 Dist 0.66 cm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murray,hops
Adult ABD
C6-2Gs
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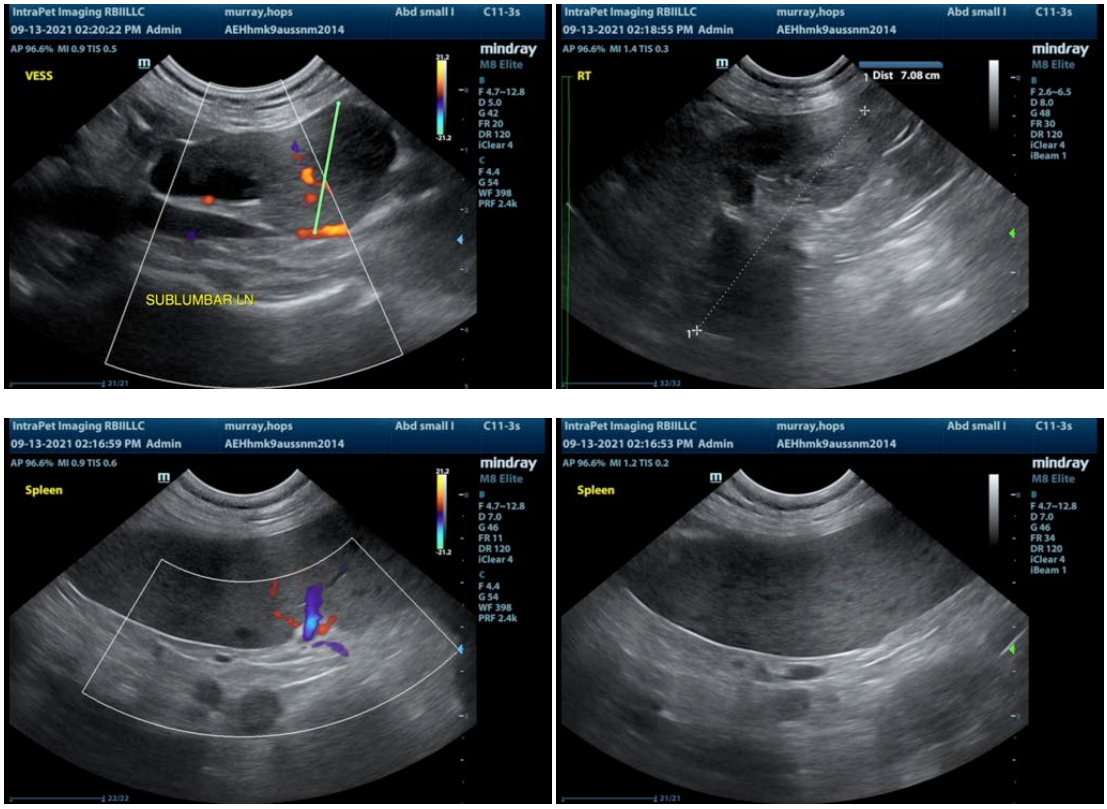
AP 96.6% MI 1.1 TIS 0.5
mindray
M8 Elite
BLADDER



The information and recommendations provided are based on the images presented by the referring veterinarian. 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)
kathleen.sennello@sonopath.com