IMAGING PERFORMED BY

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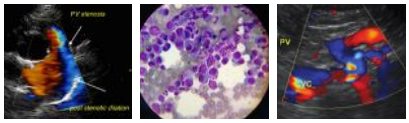

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DATE
1/7/22

PATIENT
Bosco Thayer

SPECIES
Canine

BREED
Labrador Retriever

SEX
Neutered Male

AGE
8/10/08

WEIGHT
79 Lbs.

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

HOSPITAL NAME
Fork VH

REFERRING VET
Dr. Doherty

INVOICE
13308

PRESENTING CLINICAL SIGNS

History: History: Dog has chronic skin issues which are flaring up and exhibiting some very quiet and subdued behavior (ADR). Dog also showing PU/PD for an extended period of time (few weeks to few months) with some recent weight loss. Continues to eat normally with no V/D, dyspnea, etc.

Current Medications: Doxycycline 200 mg BID.
Lab Results: Previously positive for Anaplasmosis ab over the past few years. Recent blood profile (12/31/2021): elevated renal values: SDMA 30 (0-14 ug/dl), Creat. 2.2 (0.5-1.5 mg/dl), BUN 37 (9.0-31.0 mg/dl), elevated liver values: ALT 511 (18-121 units/L), ALKP 256 (5- 160 units/ L), T Bili 0.4 (0.0-0.3 mg/dl).
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

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 2 cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size (1.54 cm) and shape for this neutered male dog. The parenchyma is homogeneous, and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The right kidney has a normal shape and size (6.06 cm). Overall echogenicity is slightly hyperechoic with poor 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 left kidney has a normal shape and size (6.0 cm). Overall echogenicity is slightly hyperechoic with poor 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 0.69 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 0.6 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 normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. On several views of the right side of the liver, there is an isoechoic heterogeneous subtle bulging area, measuring approximately 6.1 cm x 4.4 cm. This could be consistent with a subtle mass effect or an area of remodeling, etc.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a mild amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is moderately dilated with mild shadowing fluid and a small amount of ingesta. It measures at a normal thickness of <0.7 cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layering 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 (0.35 cm in wall thickness) and the jejunum measured as normal (0.27 cm) 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/region of 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

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Diffusely heterogeneous liver with a subtle heterogeneous bulge/mass effect. 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. The subtle bulging lesion could represent normal/remodeling tissue or could represent an early tumor (benign or malignant).

- Decreased corticomedullary distinction both kidneys. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

Secondary Findings

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

- Mild fluid distention of the gastric lumen. Correlate with feeding history. If patient was strictly fasted, then consider such differentials as delayed gastric emptying or partial gastric obstruction (none visualized). This is likely an incidental finding.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No obvious large focal hepatic lesions are visualized, but there is a suspicious area that kept drawing attention due to a subtle rounded shape and slight change in texture. This could represent a focal area of remodeling or be and early subtle mass lesion. This would likely be a difficult area to aspirate, if possible, that would be an option. Ideally, contrast CT would best obtain the detail to further evaluate this area or continued monitoring with ultrasound.

Although it's not impossible, I suspect it unlikely that a lesion like that would make this patient not feel well and is unlikely to raise the renal values.

- Consider testing for leptospirosis

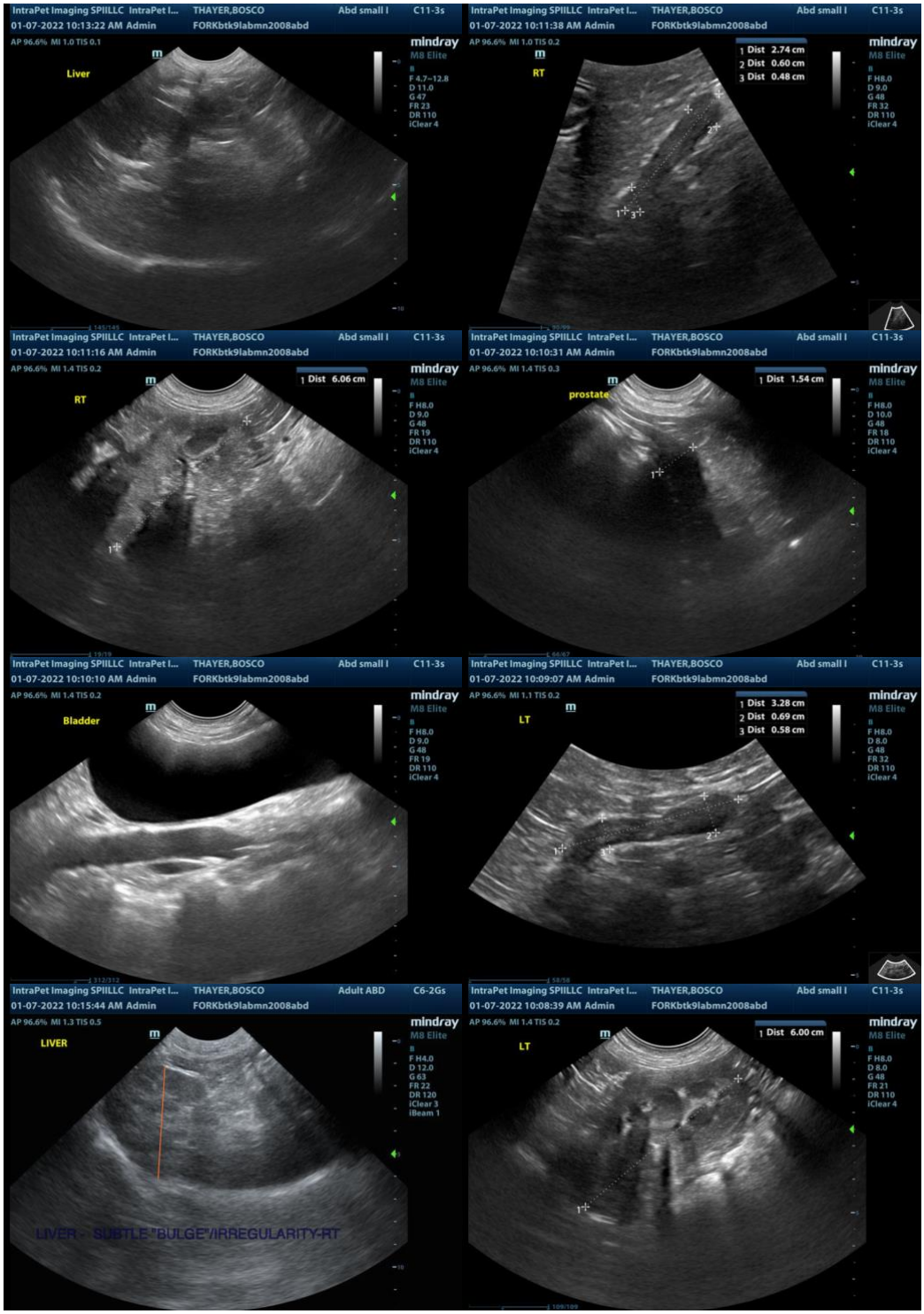
- Recommended pre- and postprandial bile acids to evaluate liver function

- Consider a fine needle aspirate of the liver- a fine needle aspirate of the abnormal area would be great, but general liver would be fine as well.

- If liver enzymes remain elevated despite general medical care (Denamarin +/- antibiotics +/- ursodiol), then consider a contrast CT scan to further evaluate the irregular area and a liver biopsy to evaluate the general liver, if a mass effect is not addressed surgically.

- Recommended three-view thoracic radiographs

The changes observed in the kidneys could be consistent with chronic progressive age-related kidney disease. Recommend a urinalysis and culture, blood pressure evaluation and urine protein to creatinine ratio if there is an inactive urine sediment.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Liver
mindray M8 Elite
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RT
1 Dist 2.74 cm
2 Dist 0.60 cm
3 Dist 0.48 cm
mindray M8 Elite
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AP 96.6% MI 1.4 TIS 0.2
RT
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mindray M8 Elite
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AP 96.6% MI 1.4 TIS 0.3
prostate
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mindray M8 Elite
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AP 96.6% MI 1.4 TIS 0.2
Bladder
mindray M8 Elite
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LT
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3 Dist 0.58 cm
mindray M8 Elite
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LIVER
LIVER - SUBTLE "BULGE"/IRREGULARITY-RT
mindray M8 Elite
IntraPet Imaging SPIILLC IntraPet I... THAYER,BOSCO Abd small I C11-3s
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AP 96.6% MI 1.4 TIS 0.2
LT
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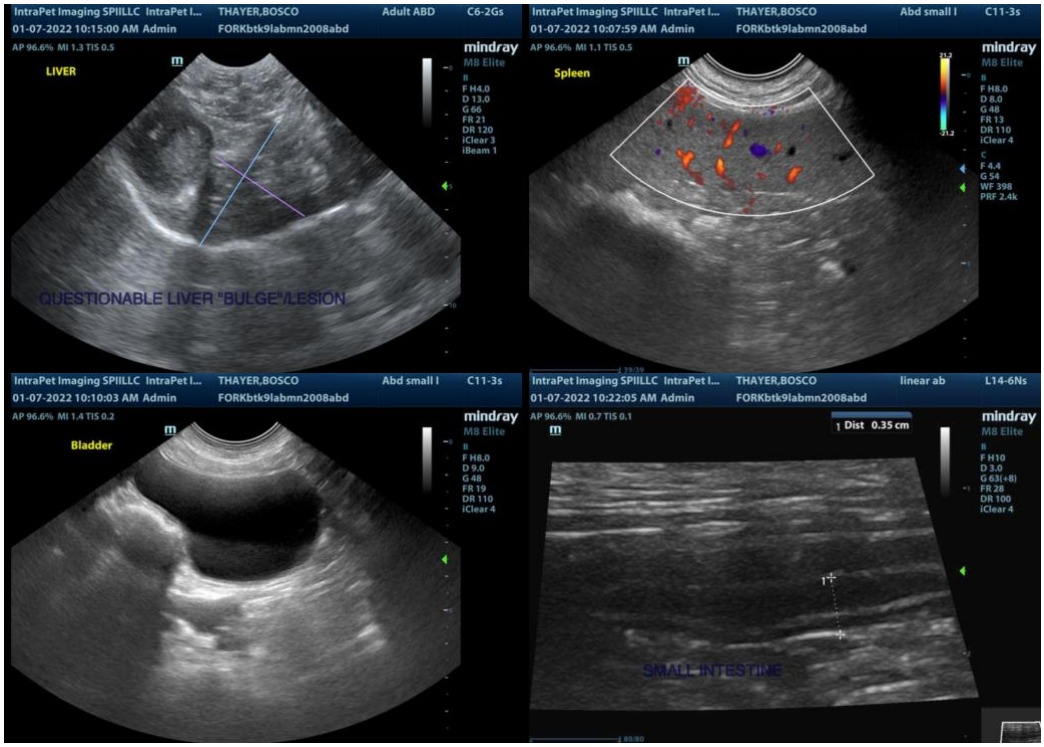
mindray M8 Elite



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