IMAGING PERFORMED BY

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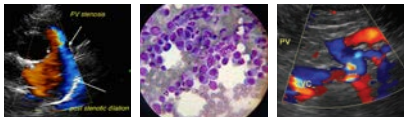

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DATE

9/21/21

PATIENT

Bentley Robbins

SPECIES

Canine

BREED

Cockapoo

SEX

Neutered Male

AGE

11/25/08

WEIGHT

22.2 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Bel Air Vet

REFERRING VET

Dr. Schmidt

INVOICE

25703

PRESENTING CLINICAL SIGNS

History: Uncomfortable, History of arthritis, hepatic disease, heart murmur, chronic GI problems.

Current Medications: Tylosin 70mg, 1 po BID, Metamucil, Cobalequin 1 SID, Hydrolyzed diet.
Lab Results: Elevated liver enzymes 2020/2021.
Bile acids 10/2020 Pre = 35, Post = 88.
Radiographs: Not provided by the veterinarian.
Date of Previous IntraPet Ultrasound: 10-12-18, 12-20-2019; 8-11-20 (Echo).
Sedation: Sedation not required for scan.
Stat Report: STAT report not requested by the veterinarian.

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 (1.09 cm) 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 (4.72 cm). Mild pyelectasia noted at 0.31 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.5 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/borderline enlarged in size measuring 0.65 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/borderline enlarged in size measuring 0.66 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 large and irregular. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. Many of the borders of the liver are irregular and somewhat nodular, particularly the left lobe of the liver. There are numerous indistinct, hypoechoic nodules throughout the parenchyma varying in size from 0.5-1.5 cm with a distinct isoechoic nodule along the periphery on the left side near the gallbladder, measuring 1.6 cm.

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 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.) Jejunum wall measured 0.32 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 is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

A scant amount of anechoic free fluid is present. A mild mesenteric lymphadenopathy is present. A mesenteric lymph node is visualized and measured at 1.0 cm in size. The omentum is generally of normal echogenicity.

PRIMARY FINDINGS

- Large, irregular, nodular, heterogeneous 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.

- Mottled, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

- Small volume free abdominal fluid and a prominent mesenteric lymph node – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

SECONDARY FINDINGS

- Mild pyelectasia of the left kidney – Pyelectasia of the left kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Borderline bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

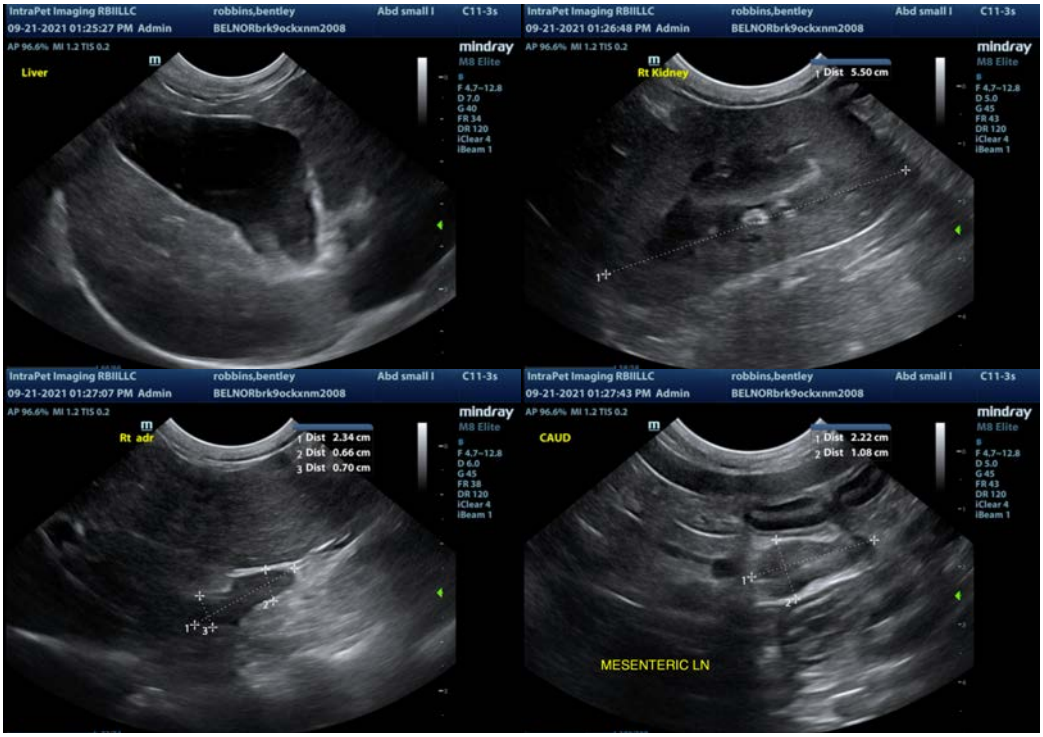
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

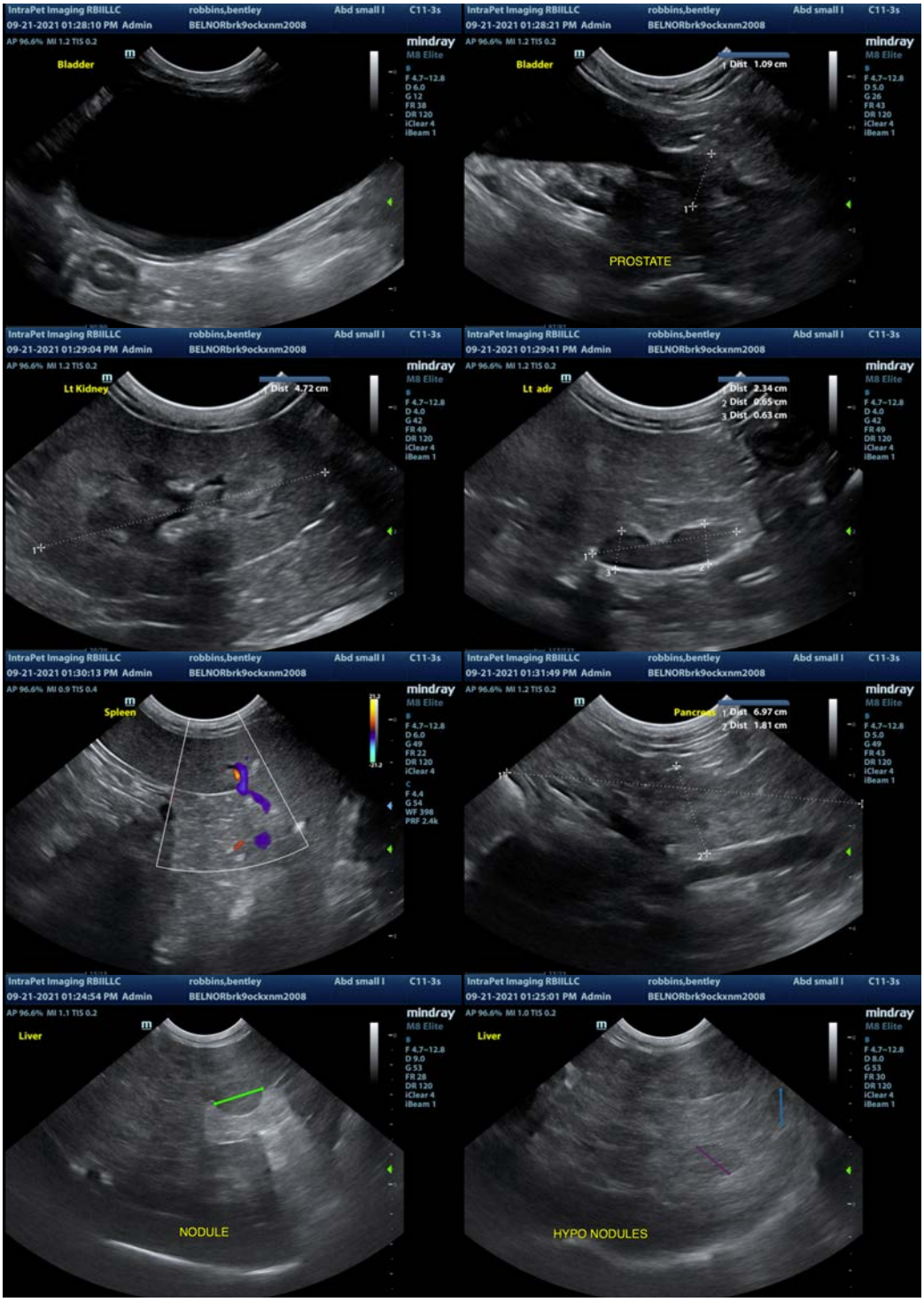
The liver is very large and irregular in appearance. This is consistent with the elevated liver enzymes and abnormal function reported. Based on the chronic nature of this issue, I'm less concerned about a neoplastic process, but a chronic severe inflammatory or even a severe vacuolar hepatopathy is possible. Recommend current blood work and liver function test if not already done, and recommend fine needle aspirate or a liver biopsy if liver function is abnormal, as this will provide more accurate information as to the nature of the abnormality.

The pancreas is prominent and mottled, but this has been a consistent finding in previous ultrasounds, so I suspect this is consistent with chronic remodeling, unless there is a recent flare up in GI signs. You could follow these with a quantitative PLI, and additionally measured B12 and folate to look for underlying small intestinal disease.

The adrenals are prominent for a dog of this size. If symptoms of Cushing's are present, you could consider adrenal function testing (I've used an ACTH stimulation test in a dog with these concurrent issues). If symptoms are not persistent with Cushing's, I would not pursue further evaluation for this, but I would consider a blood pressure.

Recommend 3-view thoracic radiographs if not recently done to reevaluate the heart and to look for intrathoracic disease. There is concern that the underlying liver disease is chronic and possibly progressing. Consider Ursodiol and longterm Denamarin.

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robbins,bentley
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Bladder
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PROSTATE
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Lt adr
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Spleen
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Pancreas
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Liver
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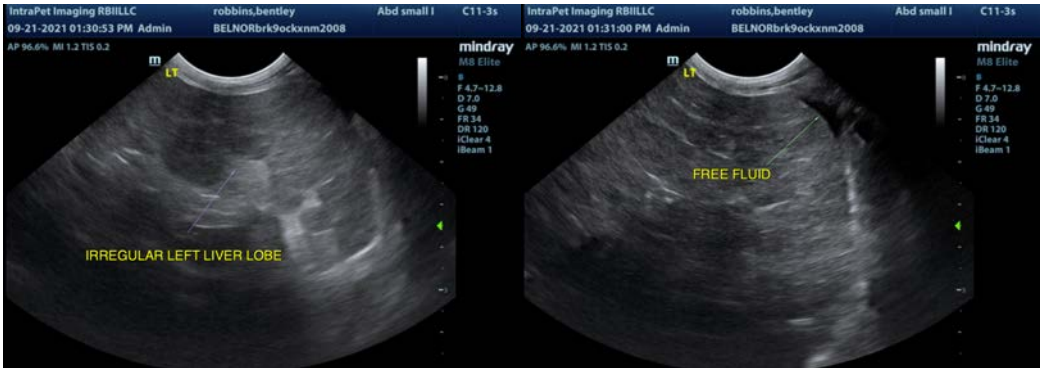
Liver
HYPO NODULES



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.

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