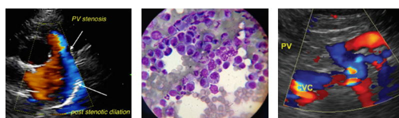


DATE
4/21/22

PATIENT
Lexie Burt

SPECIES
Canine

BREED
Golden Retriever

SEX
Spayed Female

AGE
10/14/11

WEIGHT
69 Pounds

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

IMAGING PERFORMED BY
Andi Parkinson RDMS

HOSPITAL NAME
Timonium AH

REFERRING VET
Dr. Stephens

INVOICE
37057

PRESENTING CLINICAL SIGNS

Today: Weight loss, vomiting, febrile. Recently: entropion OS, abnormalities on pre-op blood panel.

Current Medications: None listed.
Lab Results: Hyperglobulinemia, monocytosis, mild anemia, elevated amylase and lipase.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (7.23 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 right kidney has a normal shape and size (6.3 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 0.63 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 large in size measuring 1.7 cm at the cranial pole, 1.8 cm at the caudal pole, and 3.9 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat abnormal in appearance in that it is large and hypoechoic with a heterogeneous echotexture. There is no obvious evidence of vascular invasion.

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. There is an isoechoic small mass lesion visualized measuring 2.81 cm x 2.16 cm, which mildly deforms the splenic capsule.

Liver

The liver is subjectively normal in size, and slightly irregular in shape. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous ill-defined, hyper- and hypoechoic nodules visualized. A more distinct, somewhat cystic nodule is visualized measuring 1.29 cm in diameter. Another heterogeneous lesion is visualized at 3.15 cm x 2.06 cm.

The gall bladder lumen is significantly distended. The gallbladder wall appears slightly irregular and thickened and measures at 0.38 cm with adherent debris present. There is a large amount of primarily non-organized

echogenic debris. There is no evidence of bile duct dilation. These changes can be consistent with an early gall bladder mucocele.

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. Duodenum wall measured 0.45 cm. Jejunum wall measured 0.37 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 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.

Other

A brief view of the heart was submitted. No significant pericardial effusion was seen.

There is an intraabdominal lipoma visualized in the cranial abdomen measuring 7.41 cm.

PRIMARY FINDINGS

- Isoechoic splenic mass/nodule – There is a non-cavitated, isoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Heterogeneous, irregular liver with ill-defined nodules – 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. Many of these nodules are indistinct and trend towards a more benign appearance. The two nodules imaged are more prominent and have a less benign appearance.

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

- Enlarged right adrenal gland – Right adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

SECONDARY FINDINGS

- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

- Intraabdominal lipoma visualized – This lesion has the characteristics of an intraabdominal lipoma. A fine needle aspirate would be necessary to 100% confirm.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

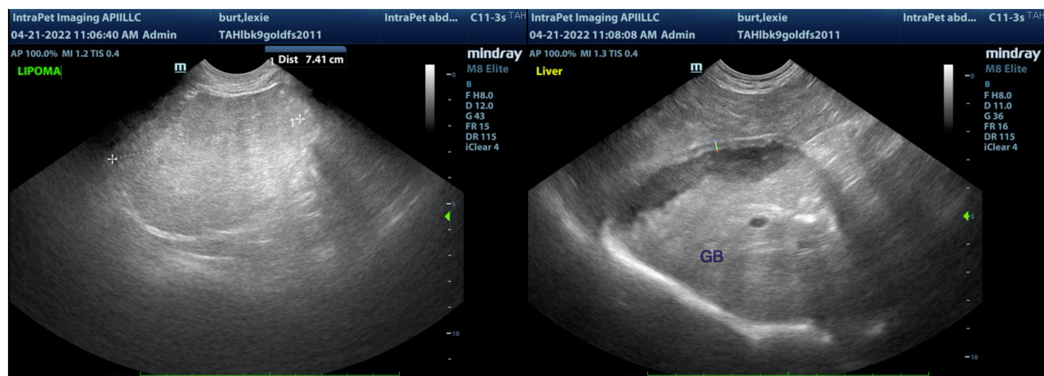
Numerous lesions are visualized on today's scan. It can be difficult to determine if these are relevant to the current vomiting and fever reported. I suspect that many of these changes are age related or concurrent, but somewhat incidental at this time. With a lack of significant liver enzyme elevations, it is questionable whether the changes in the liver are significant. Consider a fine needle aspirate of the liver to further evaluate. Additionally, you could consider a liver function test to look for a differential for the hypoalbuminemia reported.

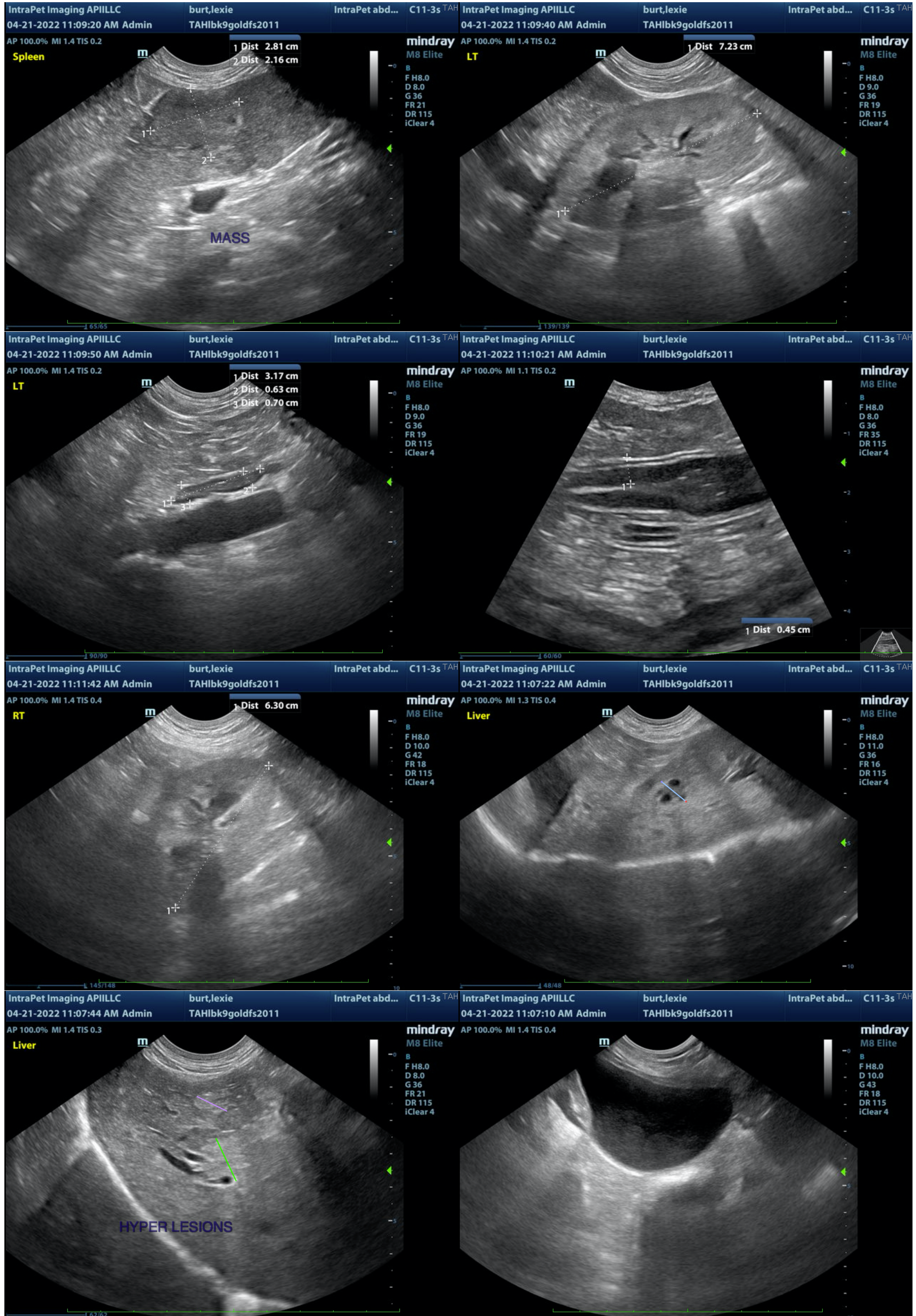
Additionally, the gallbladder has a large amount of sludge, which is adherent to the gallbladder wall. I don't see any evidence of surrounding inflammation, but continued monitoring of the gallbladder and possible Ursodiol can be considered.

There is a medium sized lesion visualized in the spleen. This is non-cavitated and can be benign or malignant. Recommend a fine needle aspirate.

The right adrenal gland is significantly enlarged, most consistent with a mass effect. If there are signs of Cushing's disease, consider adrenal function testing when this patient feels better. Recommend blood pressure evaluation and advanced imaging to evaluate for possible vascular invasion and options for surgical removal.

Based on the information supplied, there is an elevation in globulin and a low albumin level. Ultrasound findings do not identify a definitive cause for these abnormalities. Consider a urine protein/creatinine ratio and liver function test to further evaluate for causes of hypoalbuminemia. Consider a protein electrophoresis to further evaluate the elevated globulin, and evaluate the stool for any evidence of melena, etc. Based on the fever, a urinalysis and culture should be performed, and possible evaluation for tick borne disease along with 3-view thoracic radiographs. Based on the anemia and monocytosis described, recommend a pathologist review of blood smear to confirm there is no evidence of atypical/neoplastic circulating cells.

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burt,lexie
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Spleen
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mindray
M8 Elite
MASS
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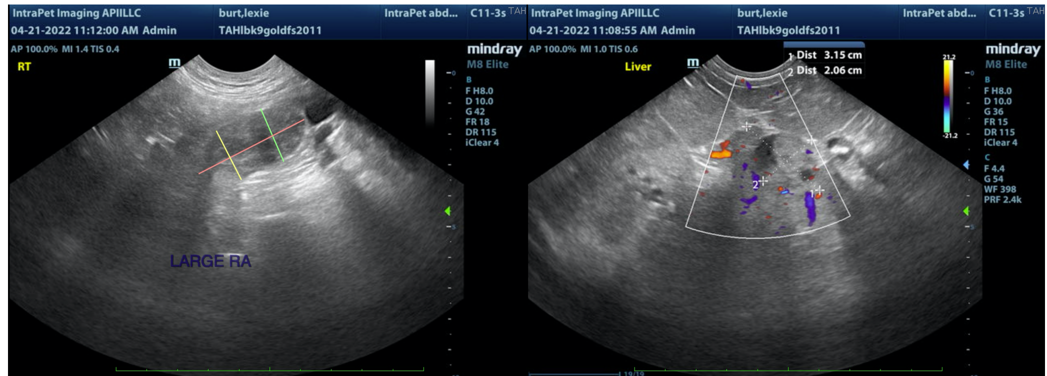

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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