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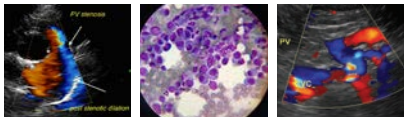

SonoPath

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DATE

10/28/22

PATIENT

Maddie Bullock

SPECIES

Canine

BREED

Golden Retriever

SEX

Spayed Female

AGE

10/27/10

WEIGHT

85.3 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Saubier

INVOICE

42437

PRESENTING CLINICAL SIGNS

Beginning in September owner noted having trouble with hind end - weak and having trouble standing. Also seems ataxic. History of right ACL injury - surgically repaired. Seen rDVM - concern for Left ACL injury - started on Carprofen and improved. Seen by orthopedic surgeon - confirmed Left ACL injury but concerned that Ataxia in hind end is neurologic change. Owner set up to see neurologist end of month. Recheck with rDVM earlier in week - seems weaker, harder to stand / collapsing. Now today unable to stand/ walk on own. Breathing hard.

Current Medications: None listed.
Lab Results: See attached.
Radiographs: sift tissue mass mid-abdomen. Spondylosis & osteoarthritis lumbosacral junction. Moderate broncho-interstitial changes
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: STAT 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 left kidney has a normal shape and size (6.82 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 (6.78 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.86 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 0.60 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 large and irregular. The spleen echotexture is heterogenous and mottled. The blood flow through the hilus and splenic parenchyma appears normal. There is a large, solid, hypoechoic vascular mass lesion visualized towards the cranial aspect of the spleen, measuring 8.37 cmx 7.11 cm.

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. There is a hypoechoic nodule measuring 3.92 cm x 2.48 cm within the parenchyma of the liver.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. 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

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.

PRIMARY FINDINGS

- Large, mottled spleen with large, solid, hypoechoic, vascular mass effect –This mass distorts the splenic capsule. Differentials include : benign lesions (lymphoid hyperplasia, hemangioma etc..) or cancerous lesions (hemangiosarcoma, lymphoma, histocytic sarcoma etc..)

- Heterogeneous liver with a focal hypoechoic nodule – 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 hypoechoic nodule visualized does not have overt criteria for a neoplastic lesion, but I cannot visibly differentiate between a metastatic lesion and a regenerative nodule.

SECONDARY FINDINGS

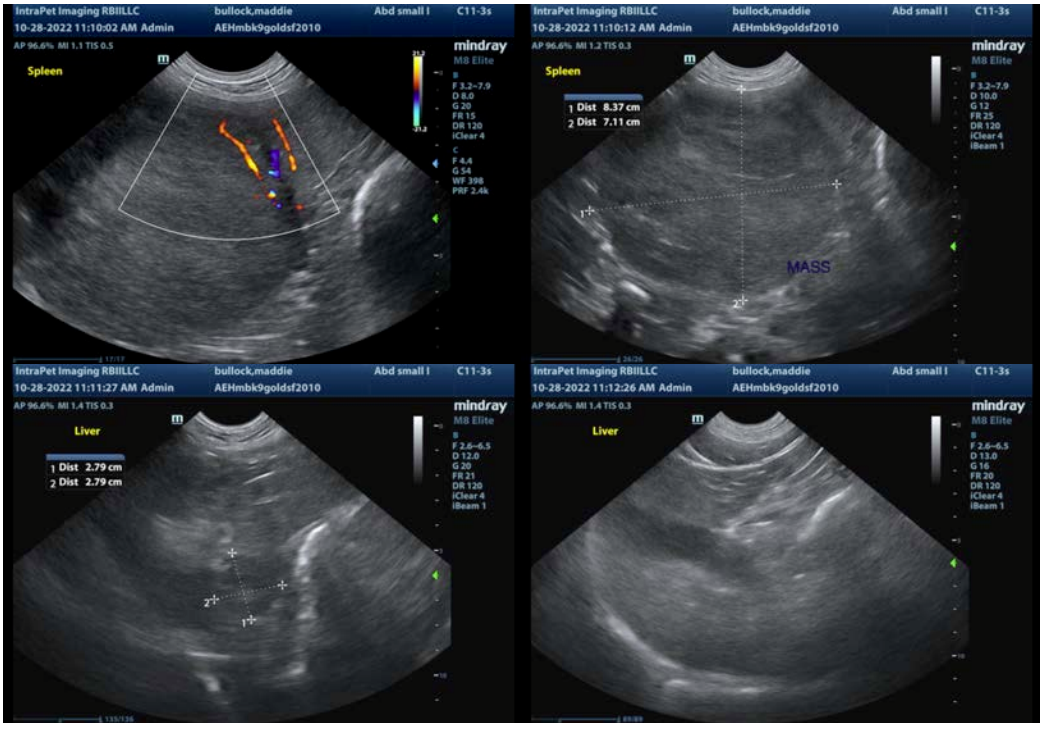
- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

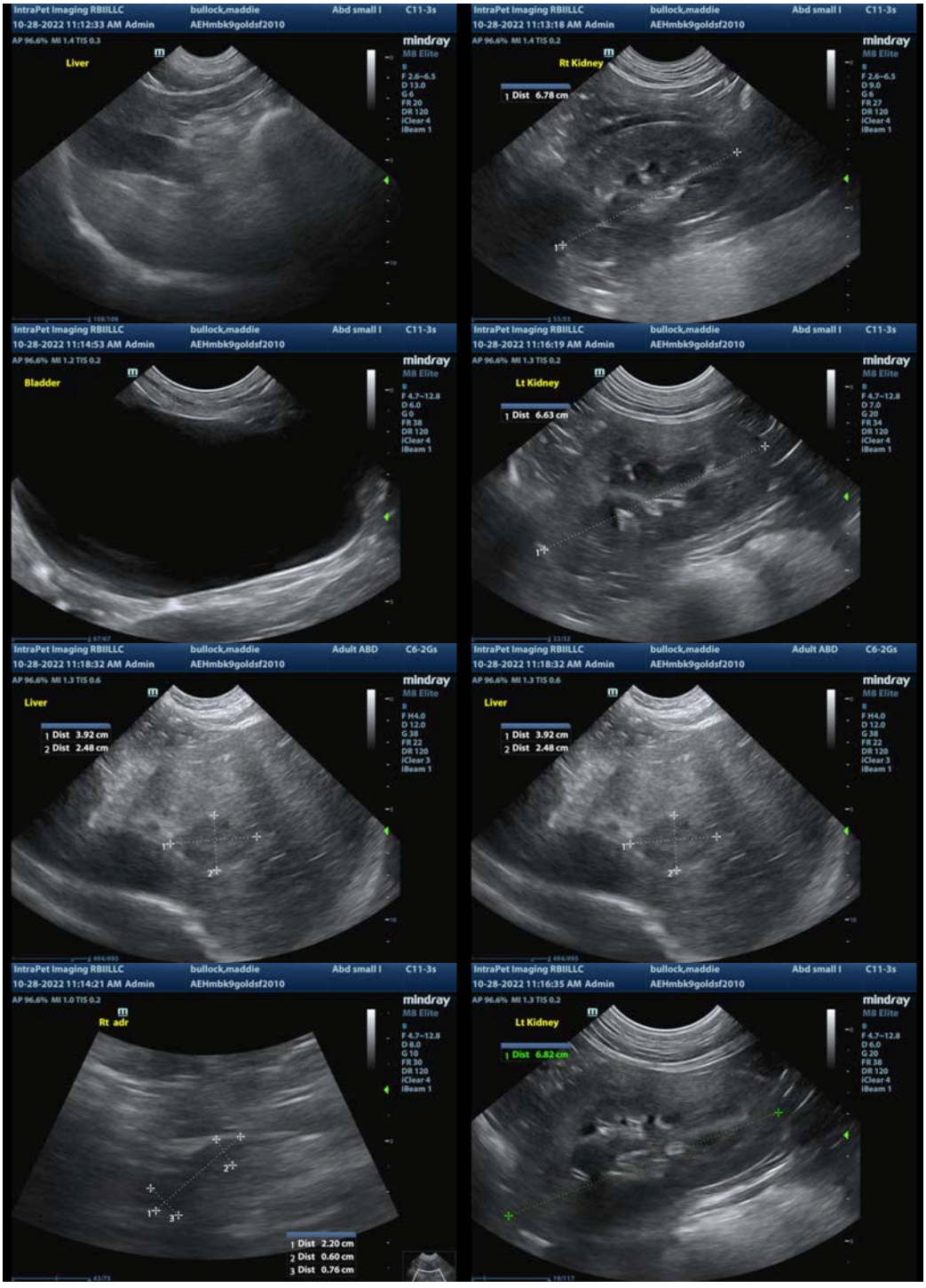
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a large solid mass effect in the spleen. This could represent a benign or neoplastic lesion. Recommend splenectomy for both diagnostic and therapeutic purposes. No free fluid is visualized in the abdomen. Correlate this with the patient's red blood cell count to look for evidence of anemia. The rear limb weakness could be due to a previous episode of hemorrhage, which has resorbed, or could be secondary to an arrhythmia, secondary to pericardial effusion that has resorbed, or could be due to neurologic disease (either primary or secondary to metastatic disease). Unfortunately, the nodule in the liver is likely to deep to sample.

Options moving forward would include splenectomy with histopathology, then consultation with a veterinary oncologist if the lesion is neoplastic, and possible treatment with chemotherapy. Alternately, you could consider a full cardiac ultrasound, ECG, and keeping the neurologist consultation prior to surgery (there is some risk for a large bleed in the meantime) to try and look for evidence of metastasis, which may reduce the desire for surgery. Both are viable options. There is the possibility that at surgery the hepatic nodule may be visible and may be able to be sampled.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

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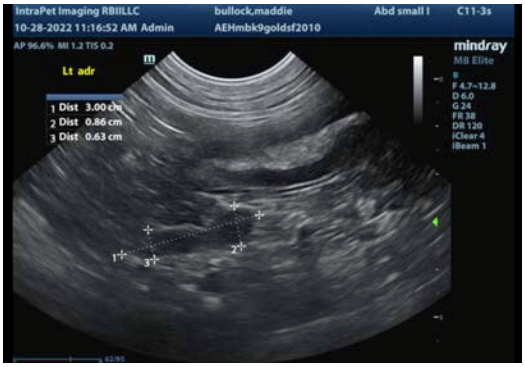

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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