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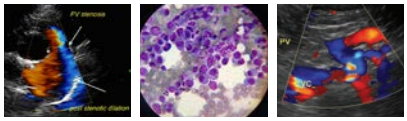

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

6/21/22

PATIENT

Bella Piper

SPECIES

Canine

BREED

Corgi

SEX

Spayed Female

AGE

6/6/10

WEIGHT

35 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Madonna Vet Clinic

REFERRING VET

Dr. Brockett

INVOICE

38927

PRESENTING CLINICAL SIGNS

Lethargic, decreased appetite.

Current Medications: Gabapentin 100mg BID since June 15th, Carprofen 75mg BID since June 16th, AmoxiClav 250mg BID sine June 16th.
Lab Results: Elevated ALT and ALKP.
Radiographs: Abdominal mass.
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 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 (6.01 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 (6.66 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 0.73 cm at the cranial pole, 0.79 cm at the caudal pole, and 2.58 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat irregular in appearance in that there is an isoechoic nodule within the cranial pole of the adrenal gland measured 0.62 cm x 0.56 cm. This nodule does not deform the adrenal gland and there is no evidence of vascular deviation.

The right adrenal gland is large in size measuring 2.1 cm at the cranial pole, 1.03 cm at the caudal pole, and 3.67 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 irregular in appearance int that the cranial pole is large and hyperechoic, most consistent with a mass effect on the cranial pole.

Spleen

The spleen is subjectively normal in size. The spleen echotexture is heterogenous, mildly mottled and irregular. The blood flow through the hilus and splenic parenchyma appears normal. There is a mixed echogenic mass effect visualized within the splenic parenchyma measuring 3.71 cm x 2.79 cm. This lesion deviates the splenic capsule somewhat.

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. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are 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. Jejunum wall measured 0.39 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

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is an enlarged cystic portal lymph node visualized measuring 2.3 cm x 1.55 cm and a caudal abdominal lymph node measuring 0.75 cm in width. The omentum is of normal echogenicity.

Other

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

PRIMARY FINDINGS

- Small, hyperechoic nodule visualized in the cranial pole of the left adrenal gland and larger hyperechoic mass effect visualized in the cranial pole of the right adrenal gland - The lesion in the left adrenal gland is less concerning, as it is small and does not deviate the capsule. The lesion in the right adrenal gland is more concerning and could be consistent with neoplasia (for example adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, or other.

- Mixed echogenic small splenic mass – A focal, solid, mixed echogenic mass is present within the splenic parenchyma. This mass distorts the splenic capsule. Differentials include benign lesions such as lymphoid hyperplasia, hemangioma, etc., or neoplastic lesions such as hemangiosarcoma, lymphoma, histiocytic sarcoma, etc.

- 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.

SECONDARY FINDINGS

- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

- Enlarged, cystic portal lymph node – This could be an incidental finding or consistent with a mild lymphadenopathy - The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are lesions evident in both adrenal glands. The left adrenal lesion is less significant and could be an incidental finding, benign lesion, or an early neoplastic lesion (metastatic lesion, primary neoplastic lesion, etc.). For now, I would recommend continued monitoring. The lesion observed in the right adrenal gland is larger and possibly more concerning. This could still be a benign lesion or a neoplastic lesion. No overt vascular invasion is observed. These are my recommendations for further evaluation of the adrenal mass:

- If signs of cushings are present, consider adrenal function testing. I prefer an ACTH stimulation test combined with an adrenal panel to the University of Tennessee's endocrine lab to look for atypical adrenal hormones as well as cortisol. (other testing can suffice)

- If adrenal dependent cushings is suspected and supported by adrenal function testing consider medical therapy with lysodren or trilostane and/or consider surgical removal (recommend referral to a board certified veterinary surgeon and possible pre op CT)-This can be a challenging surgery with significant risk for complication

- Recommend blood pressure evaluation-if hypertensive consider testing catecholamine levels for a possible pheochromocytoma

- Due to the invasive nature of these masses a CT scan is recommended to evaluate for metastasis and vascular invasion.

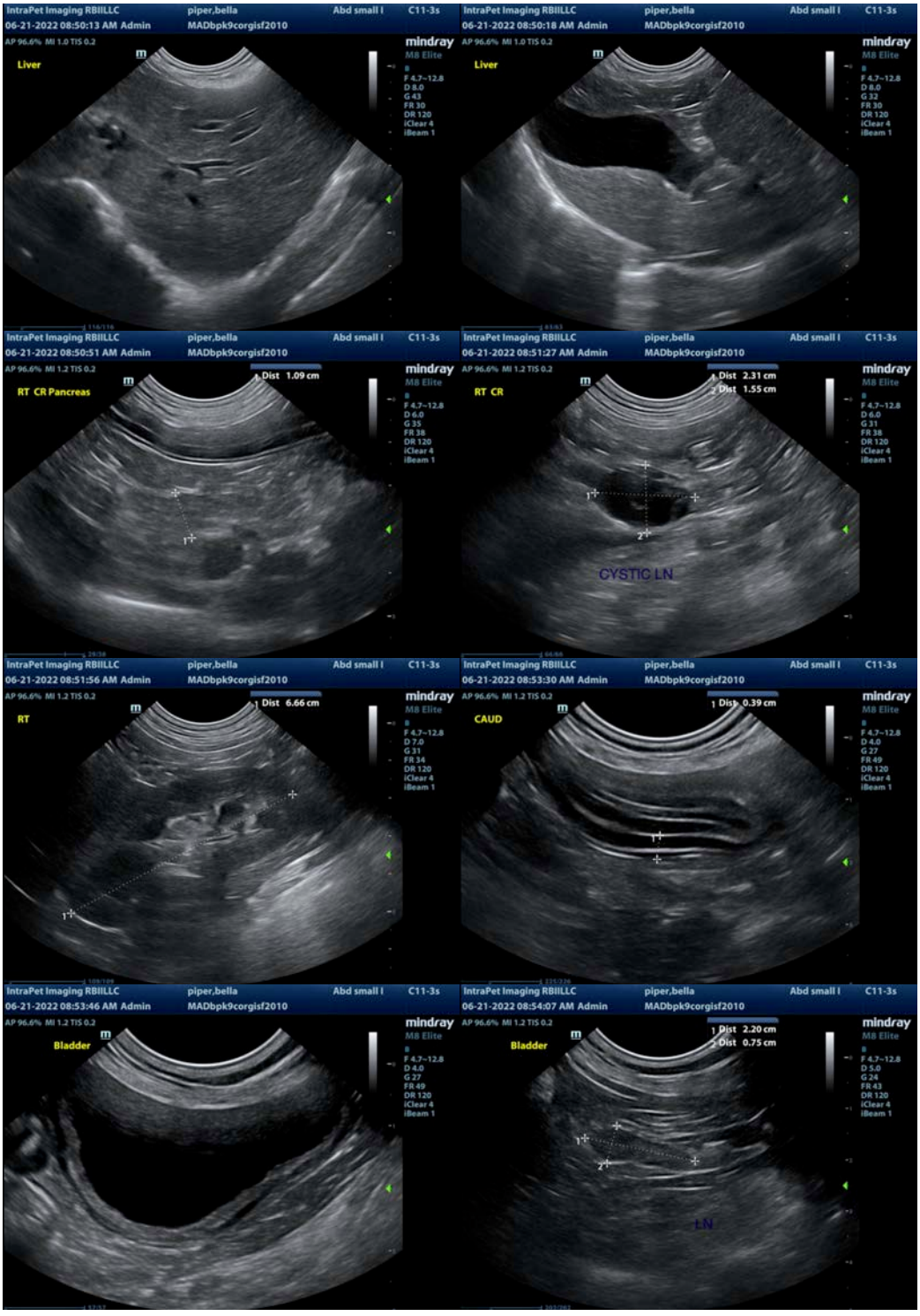
- If no symptoms of cushings are present, consider either referral for surgery or if surgery is not an option consultation with a veterinary oncologist regarding chemotherapeutic options and continued monitoring with ultrasound (in 4-6 weeks) can be considered.

- Some aggressive adrenal tumors can grow quickly and there is risk for acute hemorrhage from vascular invasion.

There is a solid mixed echogenic mass effect in the spleen. This could represent a benign or neoplastic lesion, although its appearance (isoechoic with hyperechoic areas) somewhat favors a more benign lesion, but the deviation of the splenic capsule is more concerning. Consider a fine needle aspirate of this lesion to try and obtain more information.

The specifics of the liver enzyme elevations were not included in the report. If these are significant enough to be causing illness, then consider liver function test, a fine needle aspirate of the liver, screening for Leptospirosis, etc. Alternately, if there is a significant ALP elevation, this could be consistent with a cortisol excess.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.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MADbpk9corgisf2010
Liver
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RT CR
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Dist 1.55 cm
CYSTIC LN
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CAUD
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Bladder
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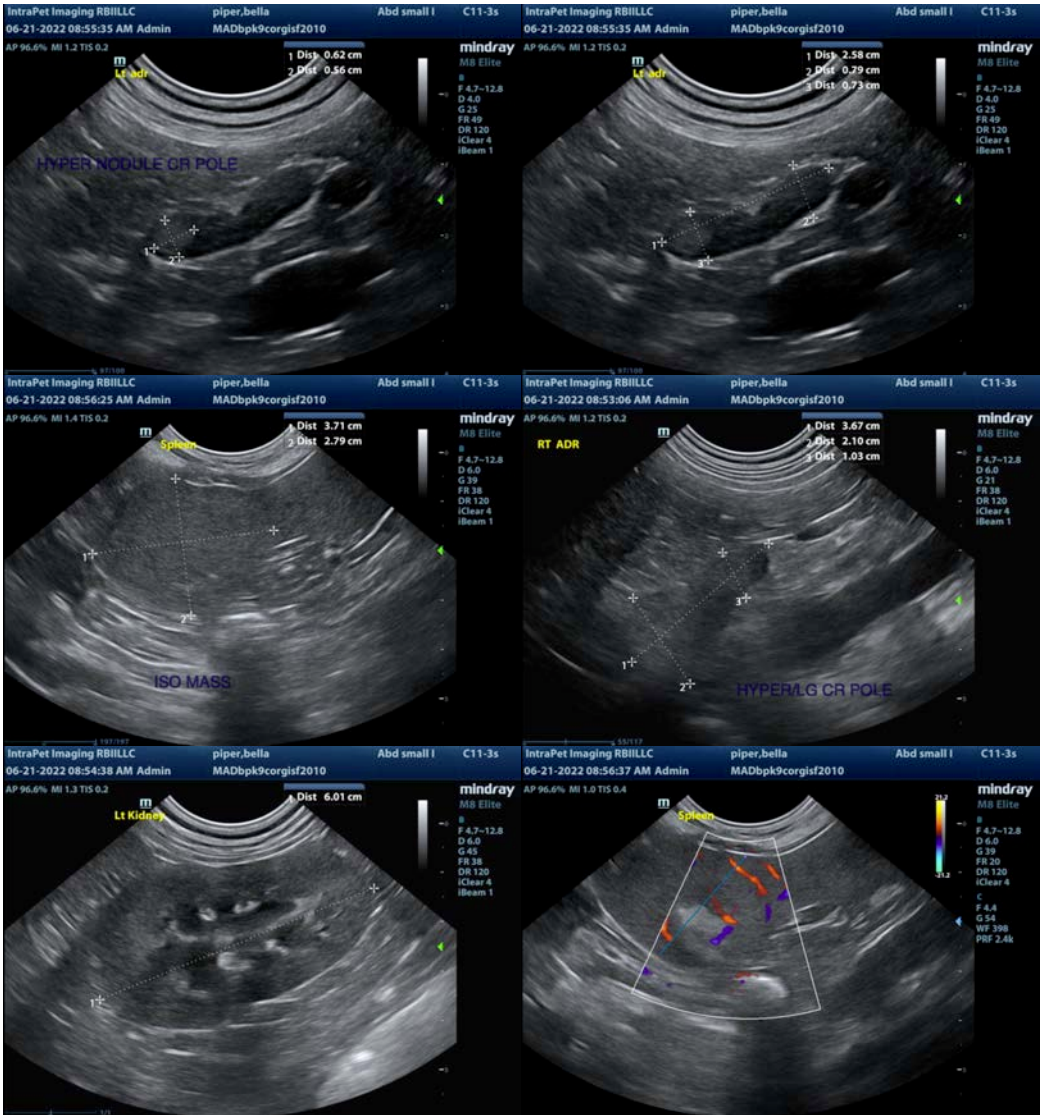
Bladder
Dist 2.20 cm
Dist 0.75 cm
LN



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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com