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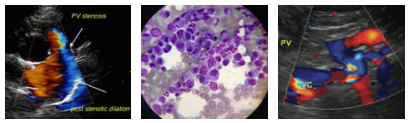

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DATE

11/5/21

PATIENT

Ginger Clem

SPECIES

Canine

BREED

Pomeranian

SEX

Spayed Female

AGE

2007

WEIGHT

8.4 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Churchville VC

REFERRING VET

Dr. Hoerle

INVOICE

92919

PRESENTING CLINICAL SIGNS

History: Acute onset intermittent vomiting after eating breakfast. No change in diet. On Royal Canin GI Low fat, a multivitamin, and OTC treats. Normal thirst, urination. Slight decrease in appetite over the past 2-3 days.
Current Medications: Started on 11-01-2021: 1) Cerenia 8 mg once daily
2) Famotidine 5 mg q12 hr 3) Denamarin
Lab Results: PE unremarkable, MM mildly tacky, pink. ALT 969, ALkP 611, GGT 13, Chol 322.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required for scan.
Stat Report: Not requested, declined.

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 (4.0 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. Mild pyelectasia was noted and measured 0.14 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.27 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 borderline enlarged in size measuring 0.71 cm. 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 borderline enlarged in size measuring 0.75 cm. 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 and the echotexture is homogenous. The splenic capsule is smooth with no visible irregularities. Rare discrete focal hyperechoic, perivascular parenchymal abnormalities are present. The appearance of these lesions is most consistent with benign splenic myelolipomas. Additionally there was an isoechoic to slightly hypoechoic mass effect in the cranial third of the spleen measuring 2.19 x 1.81 cm. This is non-cavitated, but disrupts the splenic capsule. The blood flow through the hilus and splenic parenchyma appears normal.

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 gallbladder is not thickened and has a smooth mucosal surface. There

is a moderate 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 uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Mild mucosal speckling was noted. The duodenum measured 0.37 cm and the jejunum measured 0.34 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.

Heart

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

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- 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.

- Large heterogenous 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.

- Non-cavitated splenic mass. This mass does distort the splenic capsule. Differentials for the mass include neoplasia (hemangiosarcoma, hemangiosarcoma), hyperplasia, regenerative nodule, or other.

SECONDARY FINDINGS:

- Mildly reduced corticomedullary distinction in both kidneys with mild left-sided pyelectasia. The

bilateral renal findings are consistent with age-related change. Pyelectasia of the left kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

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

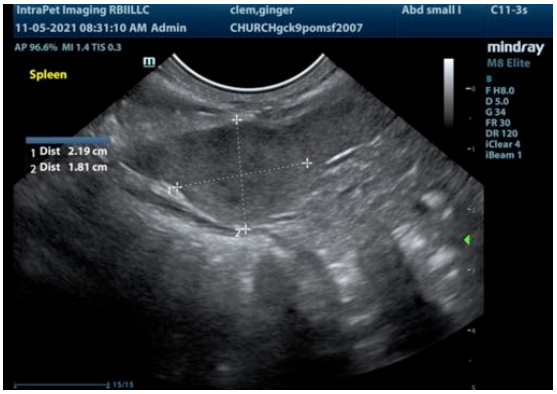
- Mild IBD pattern and mucosal speckling. The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).

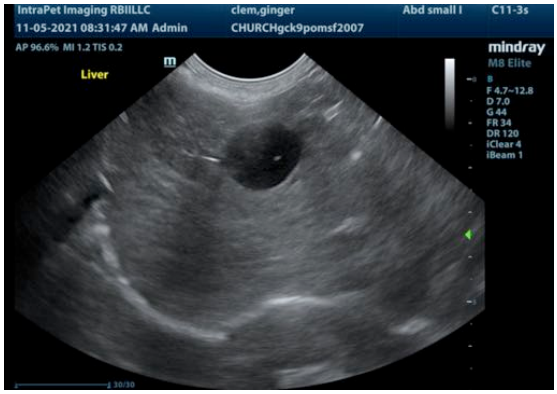
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

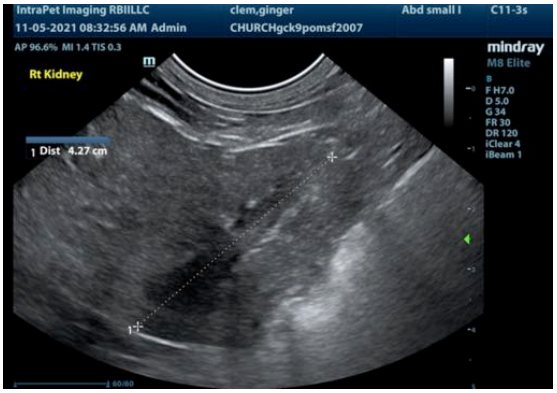
No focal lesions associated with the gastrointestinal tract or liver were noted. There is a splenic mass present. This may be benign or malignant. Options moving forward include splenectomy or FNA. I recommend three view thoracic radiographs.

I suspect the splenic mass is an incidental finding. There is a significant liver enzyme elevation with no focal lesions associated with the liver or biliary tract. Consider a liver function test and FNA of the liver. If splenectomy is performed I recommend a liver biopsy. Additionally the adrenal glands are borderline enlarged for a dog of this size so cortisol excess is a possibility, but this typically does not cause a dramatic increase in ALT.

This dog presented for GI signs. This could be secondary to liver issues. Sometimes the pancreatic mass will cause nausea and inappetence, but this does not appear inflamed or there could be concurrent gastrointestinal issues. You can consider running a GI panel with quantitative PLI, TLI, cobalamin and folate to Texas A&M to look for evidence of pancreatic and small intestinal disease. Additionally if a splenectomy is performed you can consider obtaining GI biopsies in addition to liver biopsies. Consider a transition to a novel protein or hydrolyzed protein diet.



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mindray
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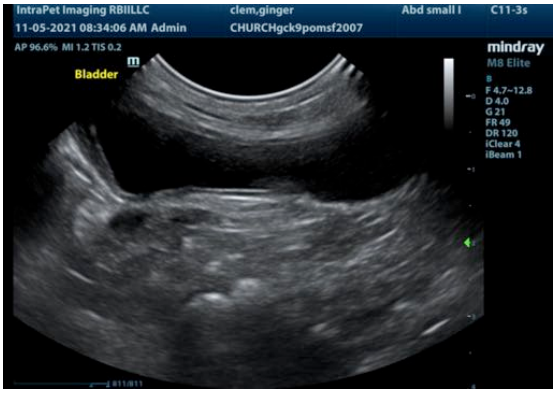
Rt Kidney
1 Dist 4.27 cm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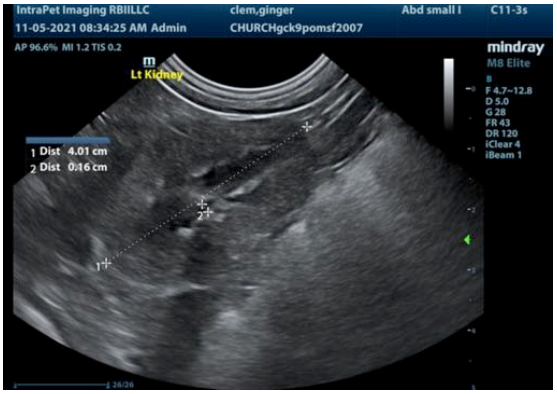
M8 Elite
Bladder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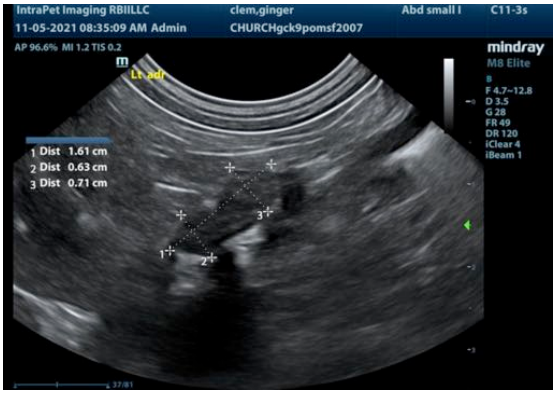
mindray
M8 Elite
Lt Kidney
1 Dist 4.01 cm
2 Dist 0.16 cm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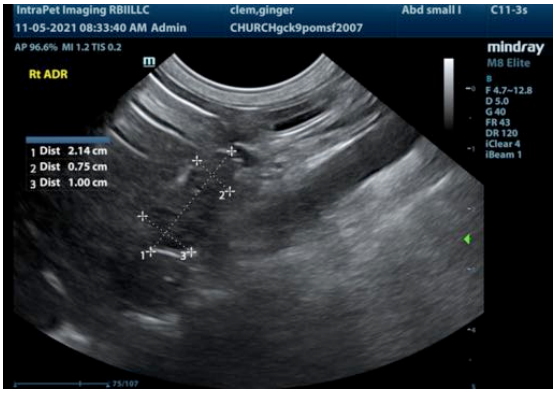
AP 96.6% MI 1.2 TIS 0.2
mindray
M8 Elite
Lt adr
1 Dist 1.61 cm
2 Dist 0.63 cm
3 Dist 0.71 cm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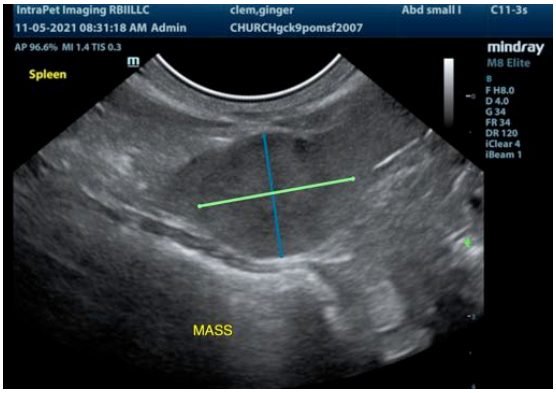
AP 96.6% MI 1.2 TIS 0.2
mindray
M8 Elite
Rt ADR
1 Dist 2.14 cm
2 Dist 0.75 cm
3 Dist 1.00 cm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AP 96.6% MI 1.4 TIS 0.3
mindray
M8 Elite
Spleen
MASS

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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