

**DATE**

10/7/21

PRESENTING CLINICAL SIGNS

History: Patient presented for history of having had a acute vomiting episode and then being weak/wobbly at the walk for a few days after the episode. Mild improvement over the weekend but delayed CPs rear legs/paretic, and quiet mentation. Decreased appetite reported at home, won't eat dog food, but will eat if fed chicken and rice. Bloodwork showed decreased electrolytes and moderately elevated BUN, borderline creatinine. Quiet Grade I-II murmur ausculted. Radiograph shows slightly scalloped/irregular shaped spleen – spleen also palpates subjectively large.

Lab Results: Attached.

Radiographs: concern for irregular splenic silhouette.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not needed.

Stat Report: Not requested.

PATIENT

Pepper Roe

SPECIES

Canine

BREED

Jack Russell

SEX

Spayed Female

AGE

2008

WEIGHT

20.5 lbs

INTERPRETED BY

Kathleen Sennello
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ACVIM (Small Animal
Internal Medicine)

HOSPITAL NAME

Bayside AMC

REFERRING VET

Dr. Buchanan

INVOICE

92241

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 (4.45 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 (5.2 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. A non-obstructive nephroliths was noted along with pyelectasia that measured 0.24 cm. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.72 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 0.52 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 The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a moderate sized, solid, largely isoechoic mass effect with some hyperechoic, mixed echogenic tissue in the cranial third of the spleen measuring 2.09 x 3.69 cm. This mass is within the parenchyma and creates a bulge in the splenic capsule.

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 3.1 cm isoechoic, ill-defined mass effect toward the middle of the liver

ventral to the hilus. 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 is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 (0.55 cm) and the jejunum measured as normal (0.27 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.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Mottled spleen with poorly defined, isoechoic/mixed echogenic mass effect. The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Mildly heterogenous liver with ill-defined, isoechoic mass effect. 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.
- Decreased corticomedullary distinction in both kidneys. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. The changes are consistent with age related changes.

SECONDARY FINDINGS:

- Shadowing material in the gastric lumen. Correlate these findings with feeding history as this can be consistent ingesta or foreign material. If the patient was adequately fasted then I recommend abdominal radiographs and continue monitoring for possible foreign material.
- Mild debris in the gallbladder. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

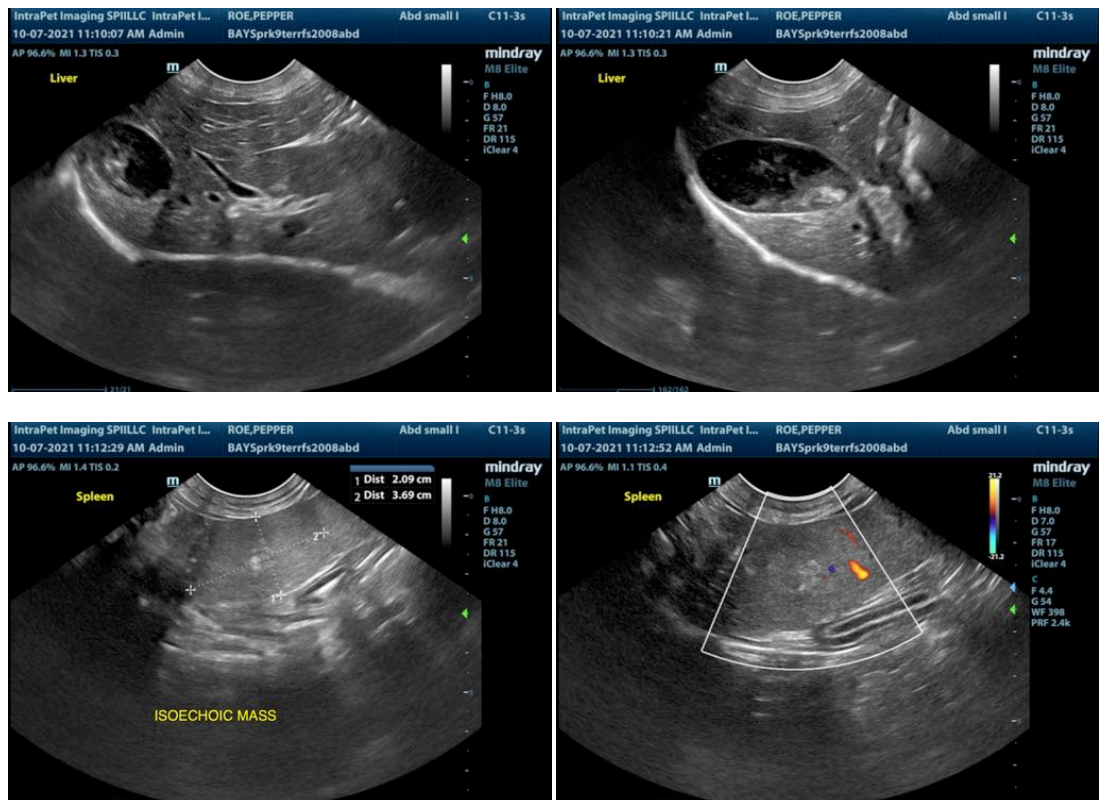
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

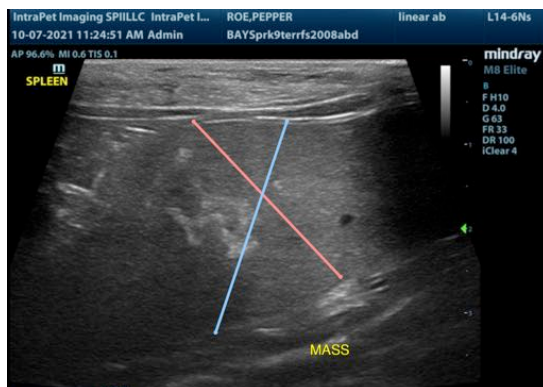
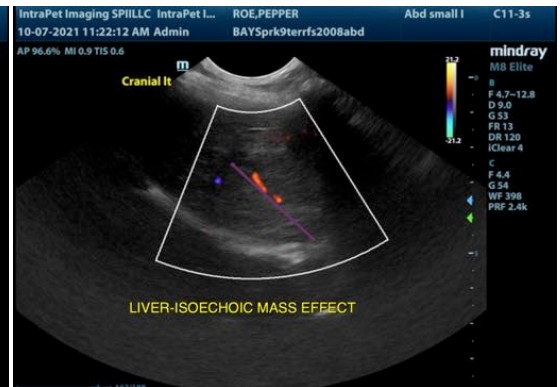
The changes observed in the kidney are most consistent with age related change and chronic renal disease. There is some mild pyelectasia in the right kidney. I recommend blood pressure evaluation, urinalysis and urine culture.

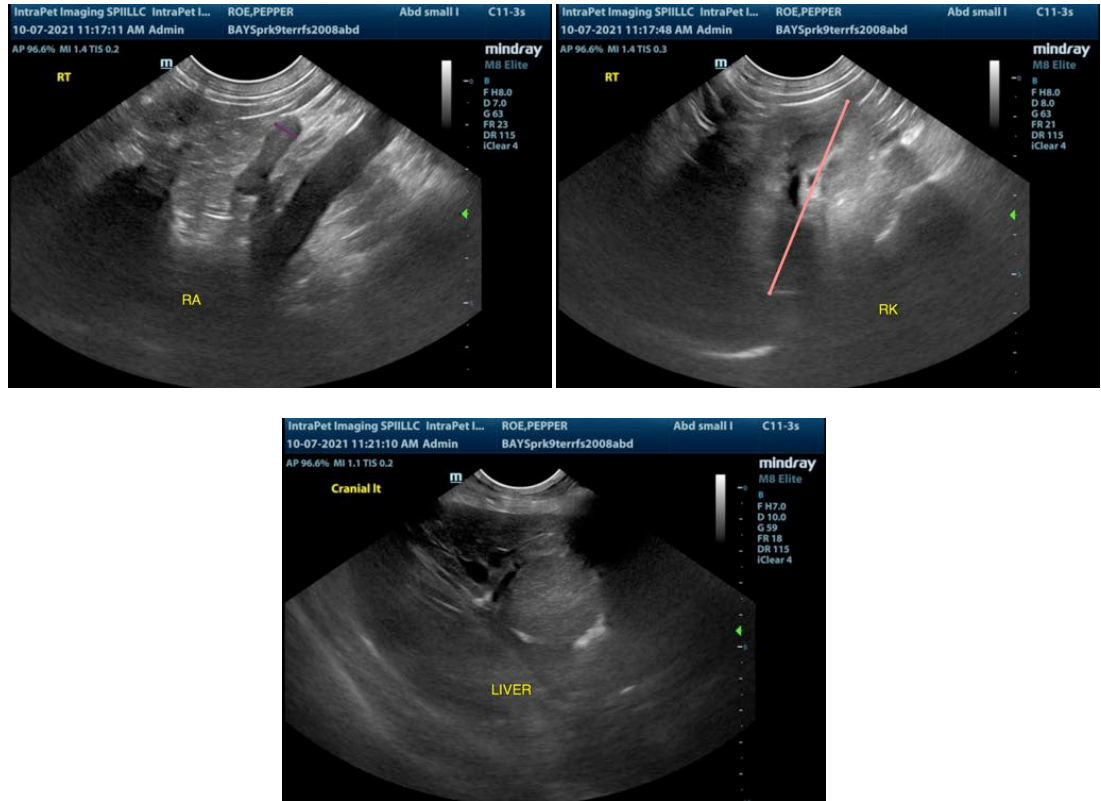
The spleen is mottled with an ill-defined mass effect. You can consider a FNA of this lesion or splenectomy with histopathology. Additionally, there is an ill-defined liver mass suspected. This would be difficult to sample. Options include continued monitoring with ultrasound or advanced imaging (CT scan to get better detail on the mass effect) and if appropriate consider surgical resection.

There is some shadowing material in the stomach. Correlate this with feeding history and abdominal radiographs. If vomiting continues and foreign material is suspected consider endoscopy or surgery.

I recommend three view thoracic radiographs to evaluate the esophagus and thoracic cavity. I recommend palpation for weak pulses in the case of possible thromboembolic disease. Otherwise, consider a referral to a veterinary neurologist for further evaluation of the hind limb paresis.







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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