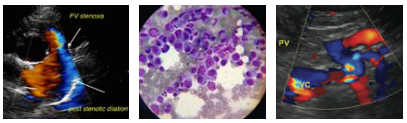
IMAGING PERFORMED BY

IntraPet.com



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DATE
12/23/21

PATIENT

Cy Scheffel-Behringer

SPECIES

Canine

BREED

Shetland Sheepdog

SEX

Spayed Female

AGE

5/7/08

WEIGHT

19.9 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Bayside Animal Medical Center

REFERRING VET

Dr. Bray

INVOICE

PRESENTING CLINICAL SIGNS

History: History of elevated liver enzymes; started with anorexia 3 days ago and vomiting- 2 lb weight loss- recently diagnosed with hypothyroidism. Dehydrated on exam, tense on palpation.
Current Medications: Levothyroxine.
Lab Results: Attached separately within request.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required for a full diagnostic ultrasound.
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 (4.48 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 (4.7 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/plump in size measuring 0.76 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/plump in size measuring 0.78 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, echotexture is heterogenous with diffuse, pinpoint hyperechoic foci. The splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There were no discrete mass effects or nodules visualized.

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 significantly distended. Some areas of the wall are mildly thickened and hyperechoic with inherent debris. Maximal measurement is approximately 0.55 cm. There is a large amount of primarily non-organized echogenic debris present and no evidence of bile duct dilation. There is evidence of mild inflammation surrounding the gallbladder.

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.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Distended gallbladder with a large amount of intraluminal echogenic debris and thickened wall. The findings are consistent with gallbladder disease. There is no evidence of rupture and there is a small amount of surrounding inflammation.

- 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.

- Borderline plump adrenal glands. 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.

SECONDARY FINDINGS:

- Diffuse hyperechoic foci throughout the spleen. The appearance of these lesions favors a benign process, but a FNA would be necessary to rule out underlying neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

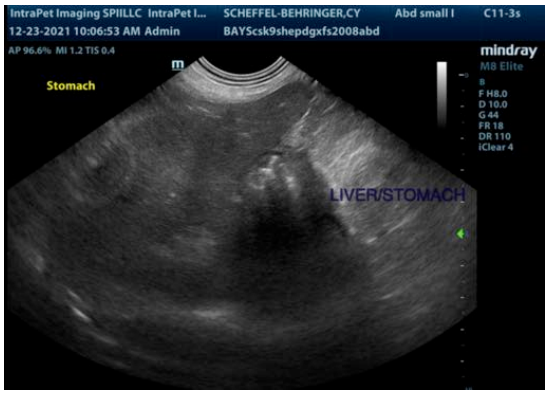
The gallbladder is distended and the wall appears somewhat thickened. This gallbladder is abnormal. It is not definitively necrotic or ruptured so the question of surgical removal is more of a grey zone. The options at this time include:

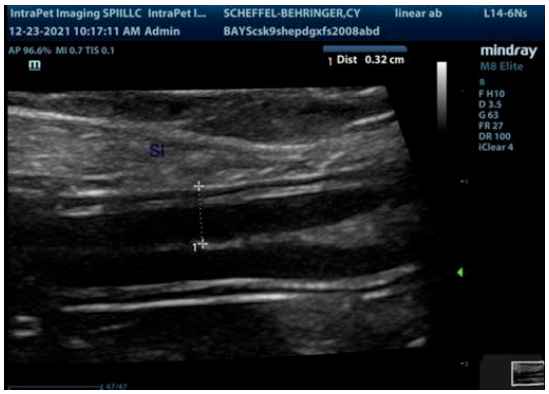
- More conservative approach with Ursodiol, IV antibiotics, Denamarin and close monitoring with the

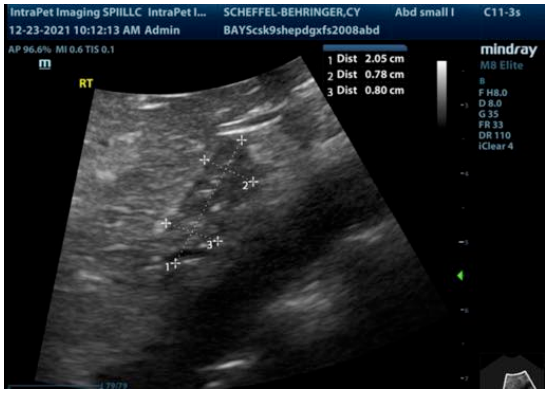
intention to switch to a surgical option if the patient is deteriorating, liver enzymes do not improve, etc. (particularly the bilirubin).

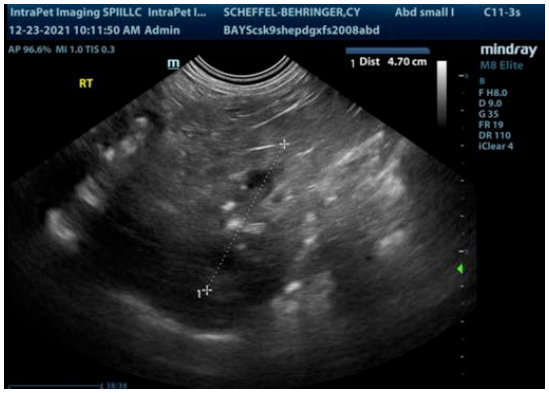
- A more aggressive approach would include cholecystectomy with liver biopsy. From one standpoint this is a major surgery to have over the holiday from another it may be inevitable or may be necessary on emergency basis down the road.
- Recommend three view thoracic radiographs. Consider a PLI test to look for concurrent pancreatic inflammation, which is not visible on today's scan.

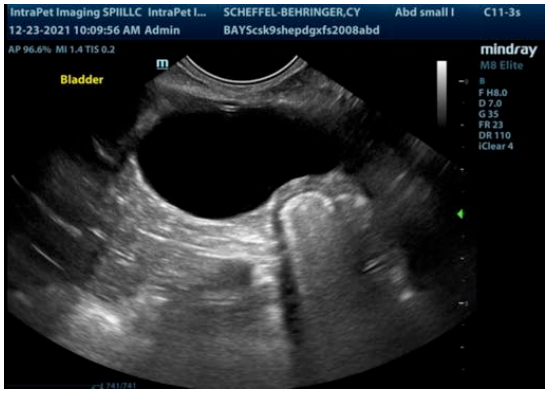
The adrenal glands are plump. If signs of Cushing's are present down the road, adrenal function testing can be considered.

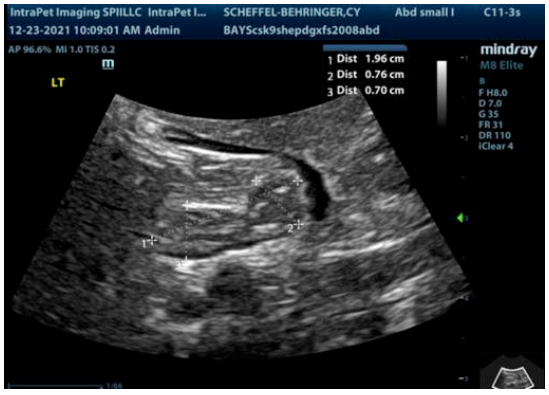


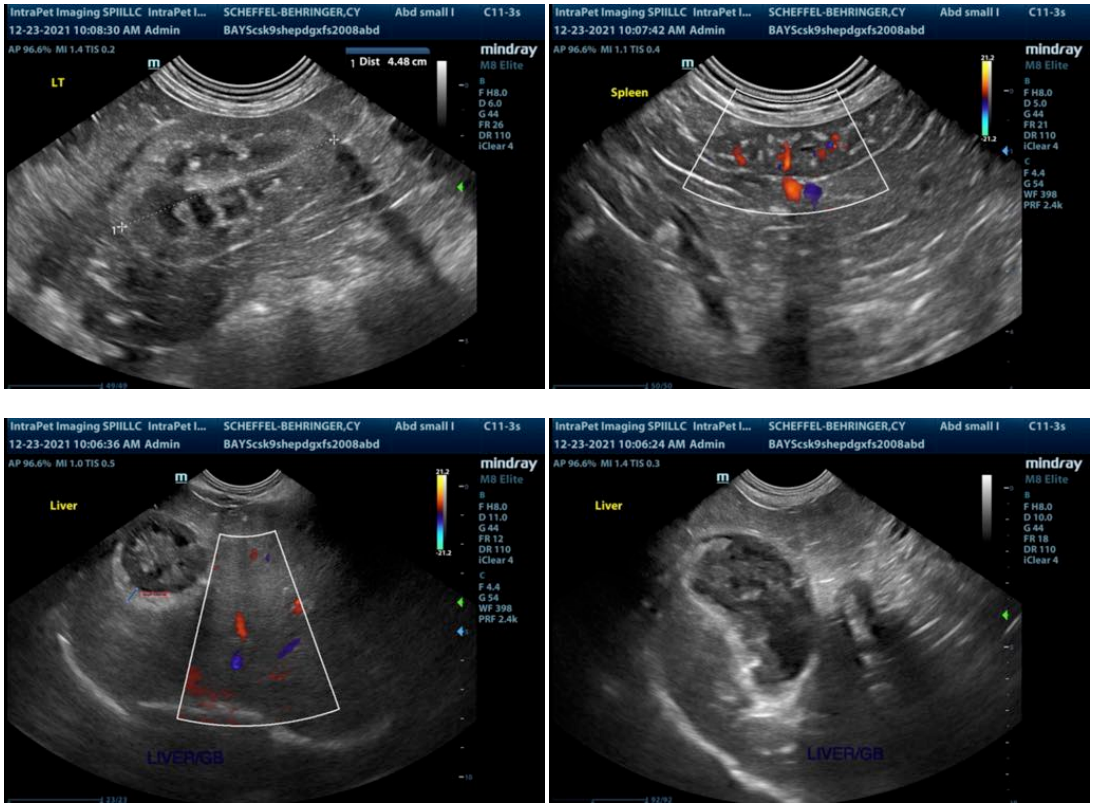












The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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