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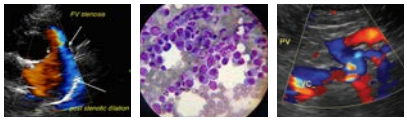

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**DATE**

8/2/22

**PATIENT**

Sal Scharmann

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

Spayed Female

**AGE**

3/2/12

**WEIGHT**

36 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Stephanie Warga RDCS, RVT

**HOSPITAL NAME**

Greenbrier Vet Clinic

**REFERRING VET**

Dr. Whitfield

**INVOICE**

40078

## PRESENTING CLINICAL SIGNS

PU/PD for past few months. On exam, P had mild cranial organomegaly and is overweight.

Current Medications: None.
Lab Results: UA - consistently low USG (1.005, 1.006); no evidence of bacteria, inflammation, or crystals in urine.. CBC- mild leukocytosis characterized by neutrophilia.. Chemistry - Elevated ALT, AST, ALP, and GGT; Creat and BUN mildly low; T4 low.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: 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 (6.08 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 (6.33 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 0.65 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 0.66 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 homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are 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. There is a small hyperechoic nodule visualized measuring 1.10 cm in diameter.

The gallbladder lumen is large and distended with a large amount of mixed echogenic intraluminal debris. The wall of the gall bladder is thickened, hypoechoic and irregular, measuring approximately 0.55 cm. There is some hyperechoic shadowing debris within the gallbladder, consistent with small stones/mineralized debris, and the surrounding tissue, particularly in the region of the gallbladder neck appears hyperechoic and inflamed. Findings are consistent with severe cholecystitis.

### *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 thickness is increased. Bowel loops follow a typical curvilinear path. Some areas have reduced detail of wall layering. Jejunum wall measured 0.33 cm. Mild mucosal speckling is present. 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

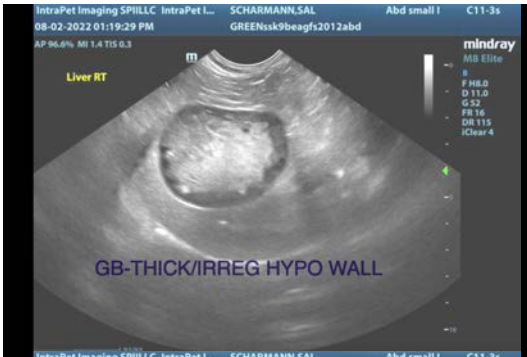
- Large, distended gallbladder with thickened, irregular wall, large intraluminal debris, and mild surrounding inflammation – most consistent with severe cholecystitis.

- Heterogeneous liver with small hyperechoic 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.

- Subjectively thickened small intestine with mucosal speckling – Bright mucosal speckling has been proposed to represent dilated lacteals or focal accumulation of mucus, cellular debris etc.. in the mucosal crypts of the small intestine.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The gallbladder appears inflamed and distended with a thickened gallbladder wall. Findings are consistent with severe cholecystitis. Treatment options include medical management with antibiotics, Ursodiol, etc., or surgical removal. Surgical removal would likely be more definitive in this patient. If surgical removal is pursued, recommend a liver biopsy at the same time +/- a biopsy of the small intestine. If surgical management is not an options, then close continued monitoring with ultrasound should be implemented (every 12-24 hours initially) to look for possible rupture of the gallbladder and a surgical emergency.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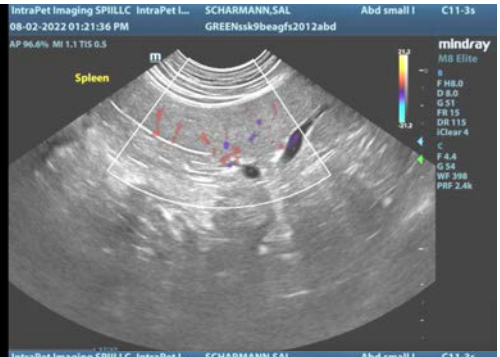
M8 Elite
Liver RT
GB-THICK/IRREG HYPO WALL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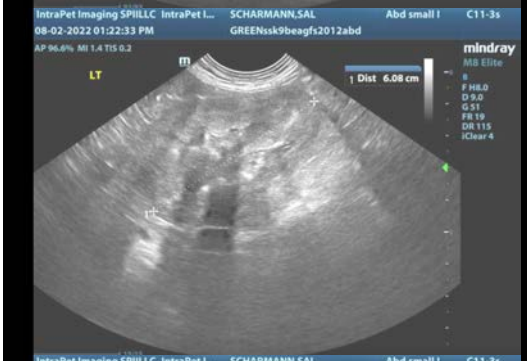
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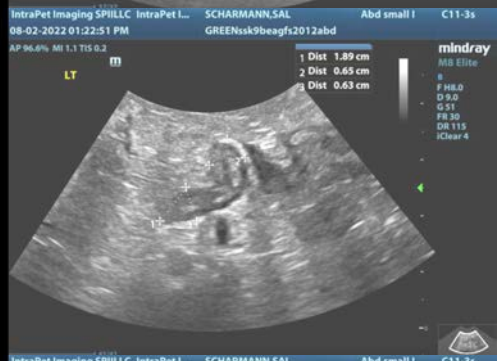
M8 Elite
LT
1 Dist 6.08 cm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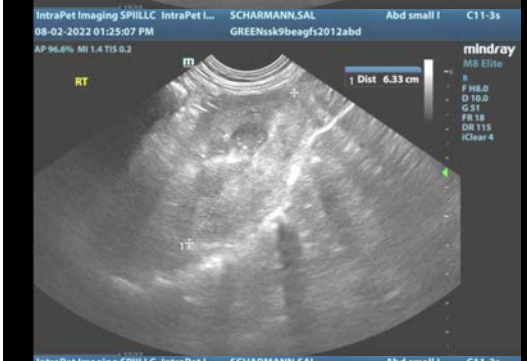
M8 Elite
LT
1 Dist 1.89 cm
2 Dist 0.65 cm
3 Dist 0.63 cm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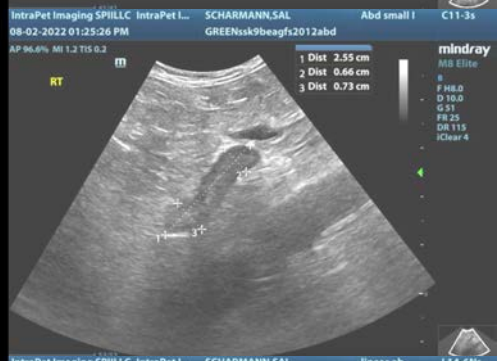
M8 Elite
RT
1 Dist 6.33 cm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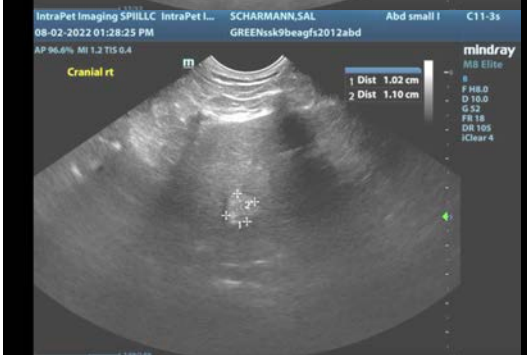
mindray
M8 Elite
RT
1 Dist 2.55 cm
2 Dist 0.66 cm
3 Dist 0.73 cm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mindray
M8 Elite
Cranial rt
1 Dist 1.02 cm
2 Dist 1.10 cm


IntraPet Imaging SPIILLC IntraPet I... SCHARMANN,SAL linear ab L14-6Ns
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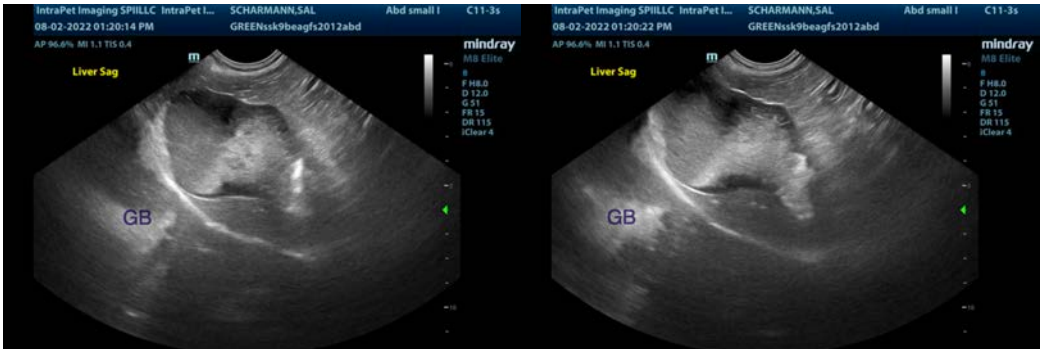
M8 Elite
SI.MUCOSAL SPECKLING




**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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