IMAGING PERFORMED BY

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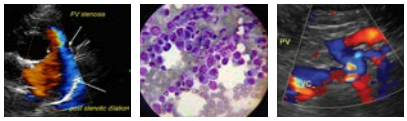

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DATE

11/11/21

PATIENT

Milo Campbell

SPECIES

Canine

BREED

Shih Tzu

SEX

Intact Male

AGE

2017

WEIGHT

7.8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

BPH City Plaza

REFERRING VET

Dr. Roberts

INVOICE

29766

PRESENTING CLINICAL SIGNS

History: Pet has a history of waxing and waning abdominal pain that started in September. Previous radiographs (9/23/2021) showed enlarged stomach w/ moderate ingesta. BW conducted on 11/05/2021 showed mildly elevated ALT, CPLI snap -negative.

Current Medications: Gabapentin (100 mg): Give 1/2 tab BID X 5 days
Lab Results: ALT (137) H. Attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Declined.
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 prostate is large in size, measuring 2.8 cm x 2.88 cm. It has a regular shape with smooth external margins. The parenchyma is heterogeneous and hyperechoic, but no discreet focal lesions are present. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect, or calculi.

The left kidney has a normal shape and size (4.06 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 (3.51 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 0.58 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 0.60 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. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder 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. Jejunum wall measured 0.31 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed. Rare mucosal speckling is visualized in some images.

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, 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.

Other

Both testicles are imaged and appear normal.

PRIMARY FINDINGS

- Mildly 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.

- Gastric dilation with ingesta – correlate with feeding history. If adequately fasted, then consider such differentials as delayed gastric emptying or a partial outflow obstruction (none observed, but can still be present).

- Large, hyperechoic prostate – Prostatic changes are most consistent with benign prostatic hyperplasia. Other differentials include bacterial prostatitis and prostatic neoplasia. However, given the lack of lower urinary tract symptoms, these differentials are considered less likely in this patient.

SECONDARY FINDINGS

- Mildly 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.

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

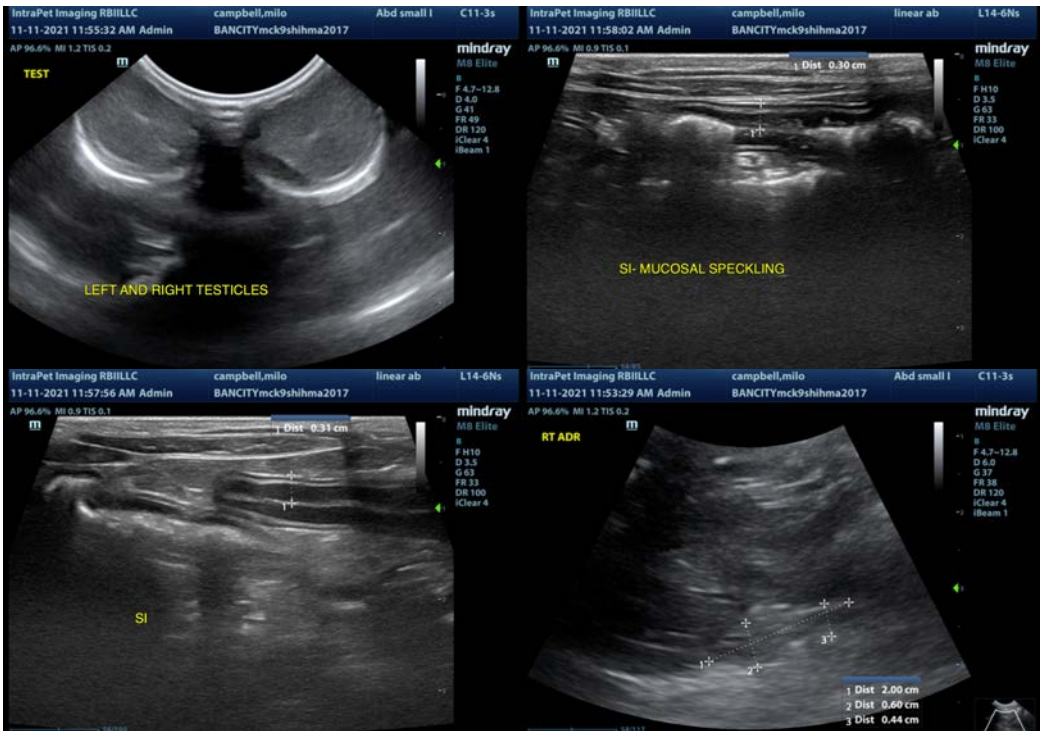
- Occasional mucosal speckling observed in the small intestine – Bright mucosal speckling has been proposed to represent dilated lacteals or focal accumulation of mucus, cellular debris etc.. in the mucosal crypts of the small intestine.

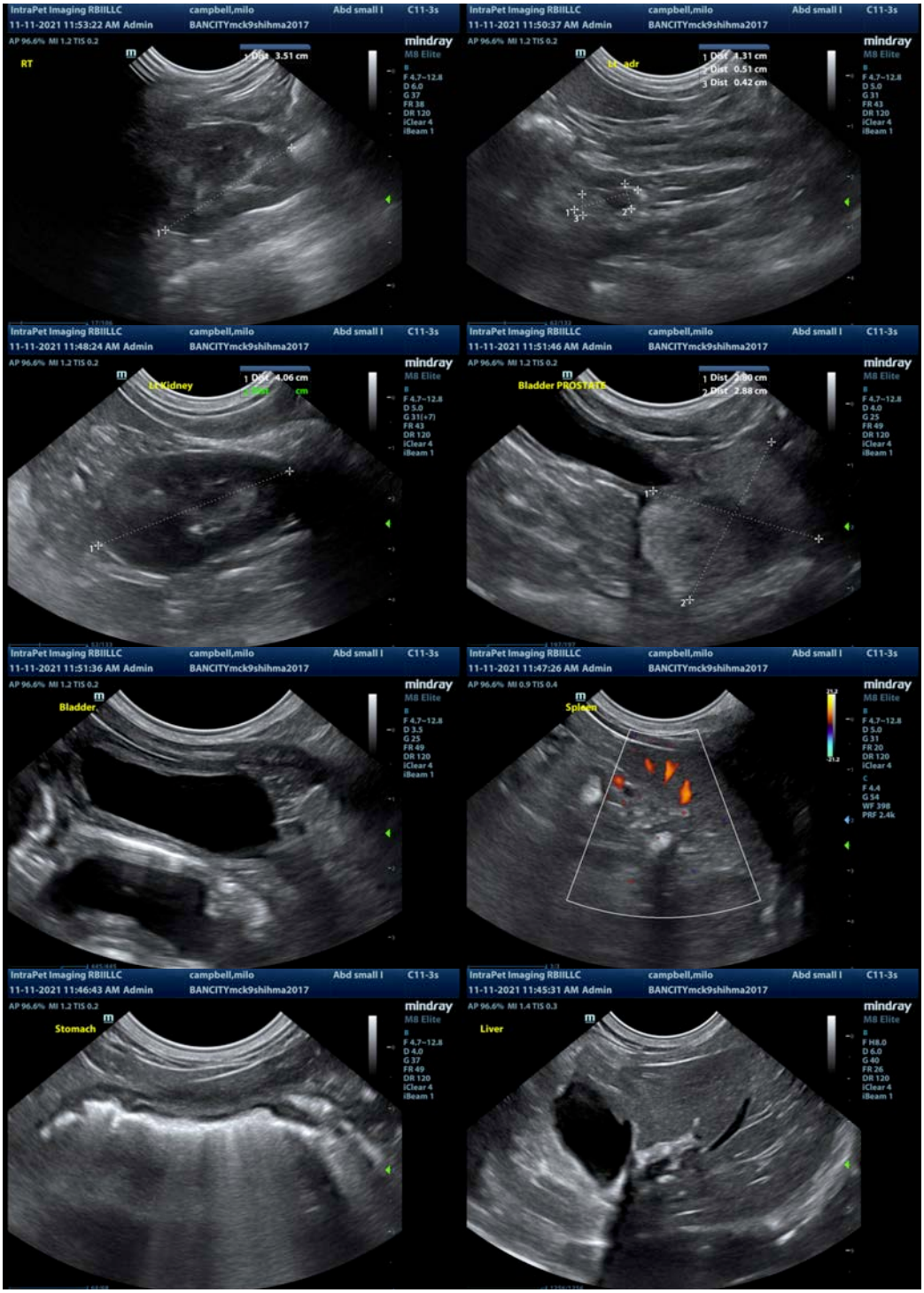
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

An obvious cause for the reported abdominal pain and distention is not observed. It is possible that this could be a distended stomach (?). This could result due to delayed gastric emptying, as a result of underlying gastrointestinal disease, or could be due to a partial outflow tract obstruction, thickened pylorus, etc., although this was not observed on today's scan.

Mild liver enzyme elevations are present with no focal lesions observed. You could consider a liver function test and a fine needle aspirate of the liver if values do not improve on Denamarin.

Consider a GI panel with a quantitative PLI, TLI, cobalamin and folate to Texas A&M University to further evaluate the pancreatic changes observed in the small intestine. If symptoms persist, and an underlying gastrointestinal issue is suspected, you could consider endoscopy or surgical biopsies. Additionally, consider neutering at that time +/- liver biopsy if indicated. Correlate findings with abdominal radiographs.

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Stomach
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Liver

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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