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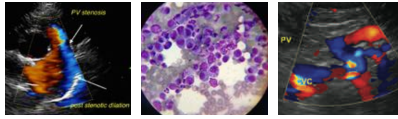

SonoPath
Clinical Sonography & Telecytology
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DATE
9/22/21

PATIENT
Cody Lowman

SPECIES
Canine

BREED
Miniature Poodle

SEX
Neutered male

AGE
2006

WEIGHT
21 lbs

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

HOSPITAL NAME
Padonia VH

REFERRING VET
Dr. Youssef

INVOICE
91927

PRESENTING CLINICAL SIGNS

Chronic vomiting and diarrhea.
Date of Previous IntraPet Ultrasound: No previous
Sedation: not needed
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 or masses. There are two small areas of dependent, hyperechoic material one measured 0.41 cm and one measured 0.27 cm. This is consistent with a very small mineralized stone or a small pile of sand debris.

The prostate is normal in size (0.74 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.86 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. Non-obstructive nephroliths was noted along with pyelectasia that measured 0.2 cm. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.19 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. Non-obstructive nephroliths was noted along with pyelectasia that measured 0.2 cm. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.74 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 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 is a bulge towards the head of the spleen measuring approximately 4.62 x 1.4 cm. This tissue is mottled with hyperechoic foci, but no discrete mass effect is observed. 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 gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. 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 uniform diameter with minimal fluid distension. Wall appears subjectively, moderately increased. The duodenum measured 0.57 cm and the jejunum measured 0.33 cm. Bowel loops follow a typical curvilinear path with no significant loss of wall layering but some areas have a mild increase in mucosal speckling. 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 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.

Heart

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

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Irregular bulge in the spleen. This is not a distinct mass effect, but there is concern for possible development of a mass effect or atypical disuse. Consider FNA.

- Heterogenous liver. The hepatic changes are consistent with age-related parenchymal remodeling and are not considered clinically significant at this time.

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

- Thickened small intestine with mucosal speckling. The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia. 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.

SECONDARY FINDINGS:

- Decreased corticomedullary distinction with both kidneys with non-obstructive nephroliths. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Dependent mineralization in the urinary bladder. These lesions are very small and should be monitored. They are most consistent with small stones or sandy debris.

- Borderline bilateral adrenomegaly. This is of questionable significance, but consider adrenal disease if signs of Cushing's are present.

- Prominent mottled pancreas. The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

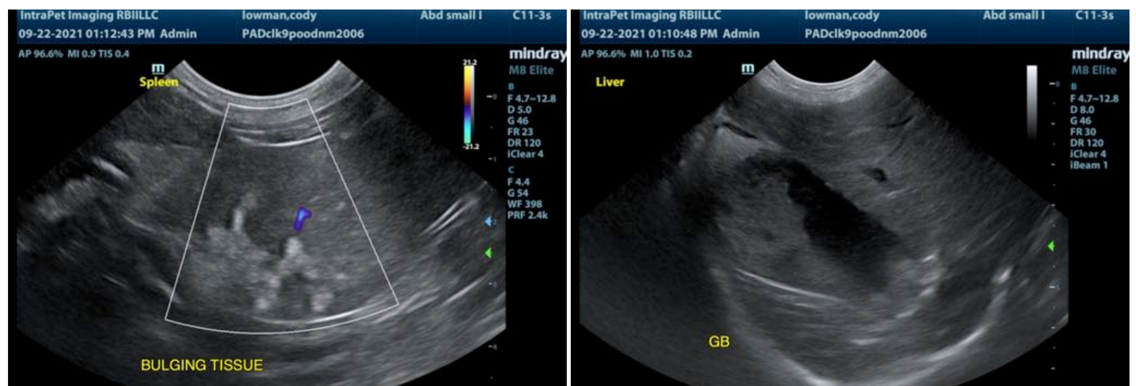
- Mild dilation of the stomach with suspected ingesta. Correlate with feeding history. If the patient was adequately fasted then consider delayed gastric emptying or partial gastric obstruction, non-observed.

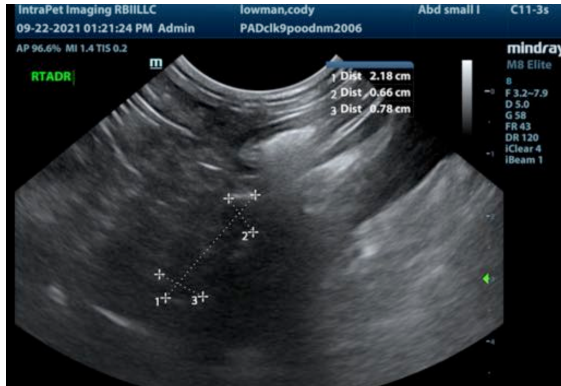
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are numerous lesions visualized many are likely associated with advanced age and normal for this patient. A primary concern considering the symptoms described is the prominent pancreas and the thickened small intestine with mucosal speckling. Consider a GI panel with a quantitative PLI, B12 and folate level to further evaluate the pancreas and small intestine. Correlate with blood work results looking for evidence of metabolic disease causing vomiting. If work-up for metabolic disease does not reveal a cause consider primary GI causes such as GI parasitism, dietary indiscretion, mild pancreatitis, bacterial dysbiosis, food allergy, IBD and less likely intestinal neoplasia.

In older patients with more chronic symptoms, I would most strongly consider food allergy, IBD, and intestinal neoplasia.

- Recommend diet trial with a novel protein/hydrolyzed prescription diet
- Recommend GI panel for evaluation of B12 levels etc.. (start empirical B12 while waiting for results)
- Recommend a probiotic
- Recommend three view thoracic radiographs
- If symptoms are progressing consider obtaining GI biopsies

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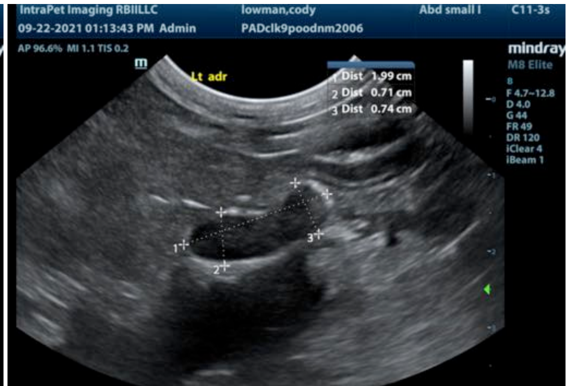
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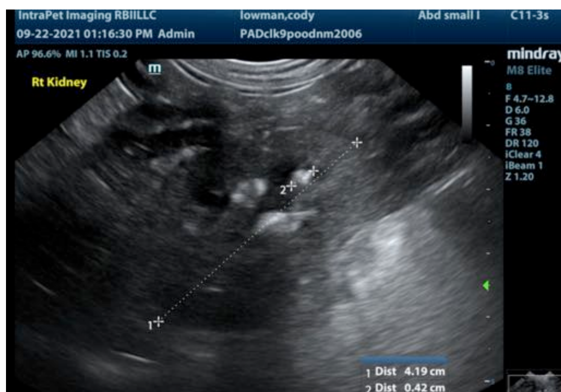
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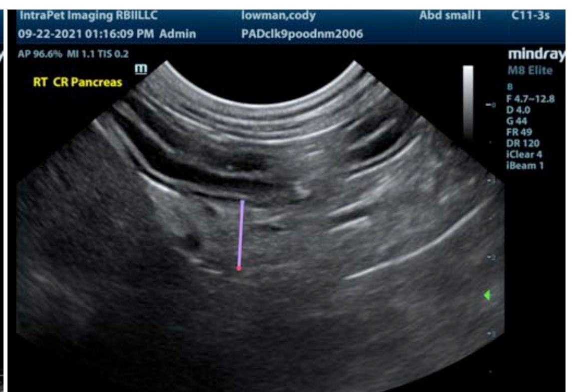
2 Dist 0.42 cm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DR 120
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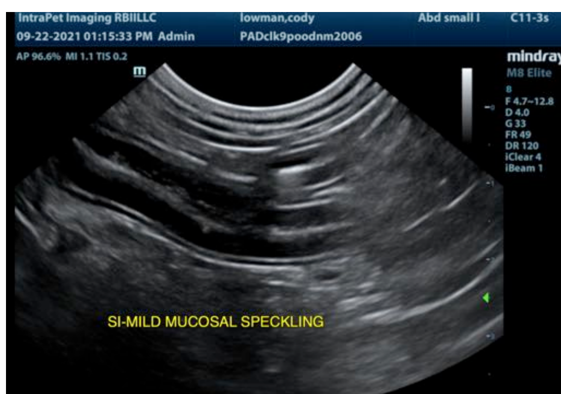
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AP 96.6% MI 1.1 TIS 0.2
mindray
M8 Elite
B
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D 4.0
G 33
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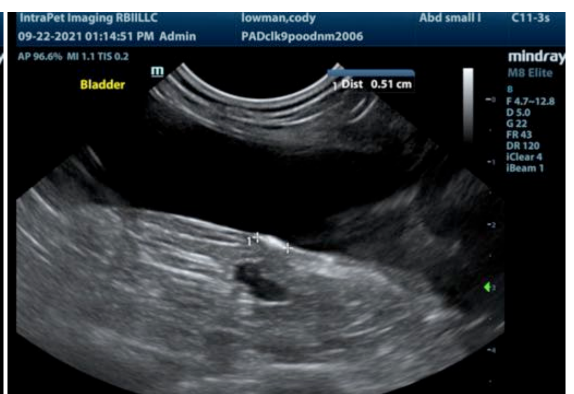
DR 120
iClear 4
iBeam 1
SI-MILD MUCOSAL SPECKLING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B
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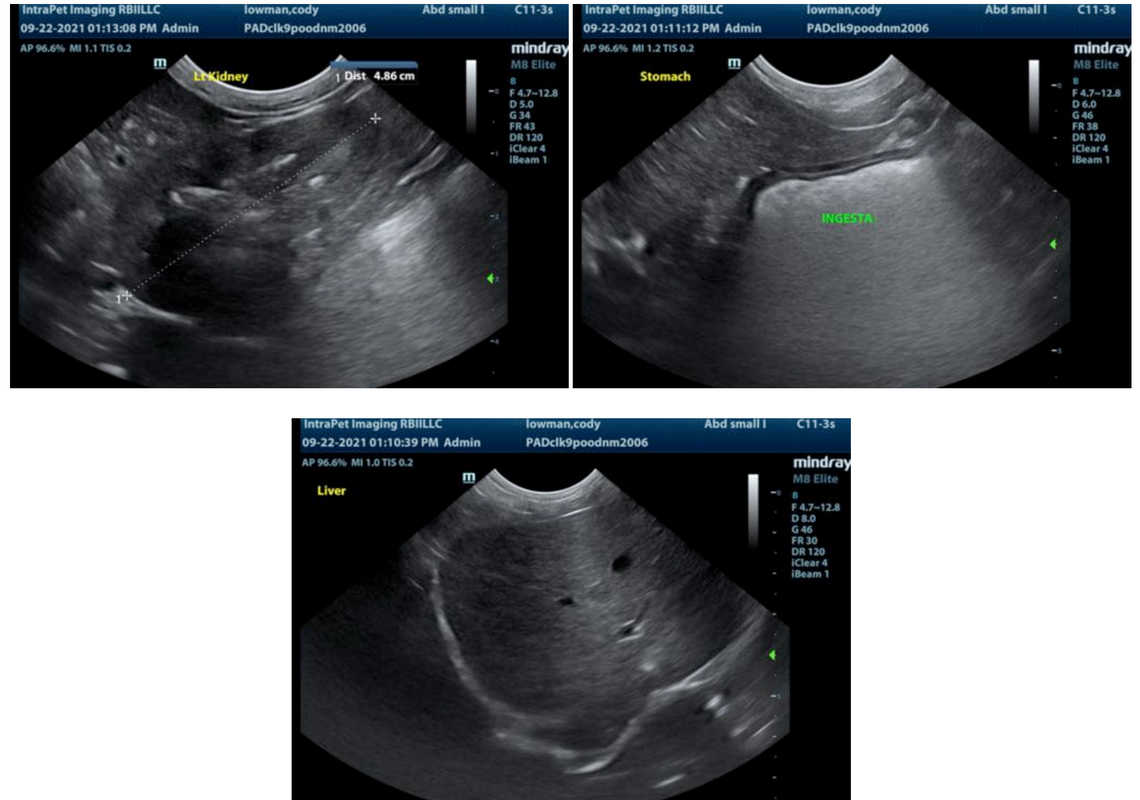

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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