IMAGING PERFORMED BY

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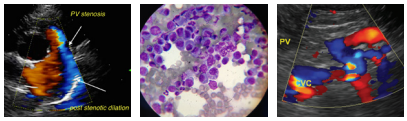

SonoPath

Clinical Sonography & Telecytology

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DATE

3/1/22

PATIENT

Banjo Cooperstein

SPECIES

Canine

BREED

Airedale X

SEX

Neutered Male

AGE

1/15/11

WEIGHT

34 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Fullerton AH

REFERRING VET

Dr. Levine

INVOICE

35975

PRESENTING CLINICAL SIGNS

P has had chronic soft stools/diarrhea. Was seen at Urgen Care on 2/18/22 with hematemesis and dark diarrhea. Diagnosed had abnormal cPL, elevations in ALKP and ALT. P has history of diabetes insipidus that's managed with Desmopressin and joint pain that's managed with Galliprant, Gabapentin and Dasuquin. Placed on Metronidazole, Sucralfate and Omeprazole at that time, Galliprant discontinued.

Current Medications: Gabapentin 100mg q8-12 hrs long term, Desmopressin 0.1mg TID. Had been on Metronidazole, Omeprazole, Sucralfate for 1 week following hospitalization on 2/18.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
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 normal in size (0.96 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 (5.7 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.

The right kidney has a normal shape and size (5.65 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 0.59 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 0.54 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. There is a small hypoechoic intraparenchymal nodule visualized measuring 1.13 cm x 1.35 cm.

Liver

The liver is large in size, and normal in echogenicity with slightly irregular borders. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. In the left lobe of the liver, there is a rounded portion of the distal left liver lobe,

which is isoechoic to the normal parenchyma. Findings could be consistent with an atypical liver (bulge), or less likely an isoechoic mass effect.

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 mildly 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. Duodenum wall measured 0.41 cm. Jejunum wall measured 0.39 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 prominent and hypoechoic as 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

No free fluid. There is no mesenteric lymphadenopathy noted, but on some views in the caudal abdomen, dorsal in the region of the colon, there is a small cystic lesion measuring 0.67 cm in diameter. This is likely an incidental finding, but should continue to be monitored.

Other

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

PRIMARY FINDINGS

- Large, heterogeneous liver with ill-defined 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. The significance of the focal “bulge” or mass effect is unknown at this time. Recommend either a fine needle aspirate or continued monitoring.

- Hypoechoic splenic nodule – There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Hypoechoic prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

SECONDARY FINDINGS

- Mild amount of fluid within the gastric lumen – Findings could be consistent with delayed gastric emptying, a recent meal/drink, or less likely gastric foreign material.

- Small cystic structure in the caudodorsal abdomen – The significance of this lesion is unclear. Recommend continued monitoring with ultrasound.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are observed associated with the gastrointestinal tract. I suspect this could be consistent with an episode of hemorrhagic gastroenteritis, but the chronic diarrhea and GI signs are concerning. Unfortunately, not all causes of diarrhea or able to be diagnosed by ultrasound alone.

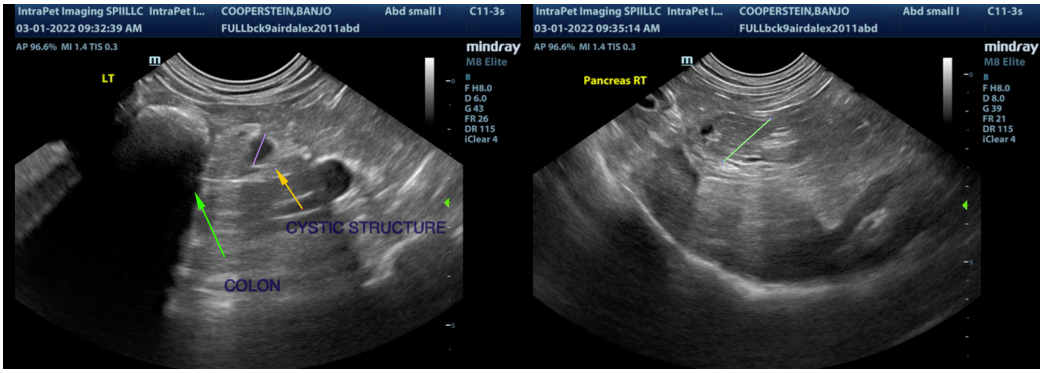
The pancreas is somewhat prominent, but not overtly inflamed. Recommend a GI panel to Texas A&M for qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.

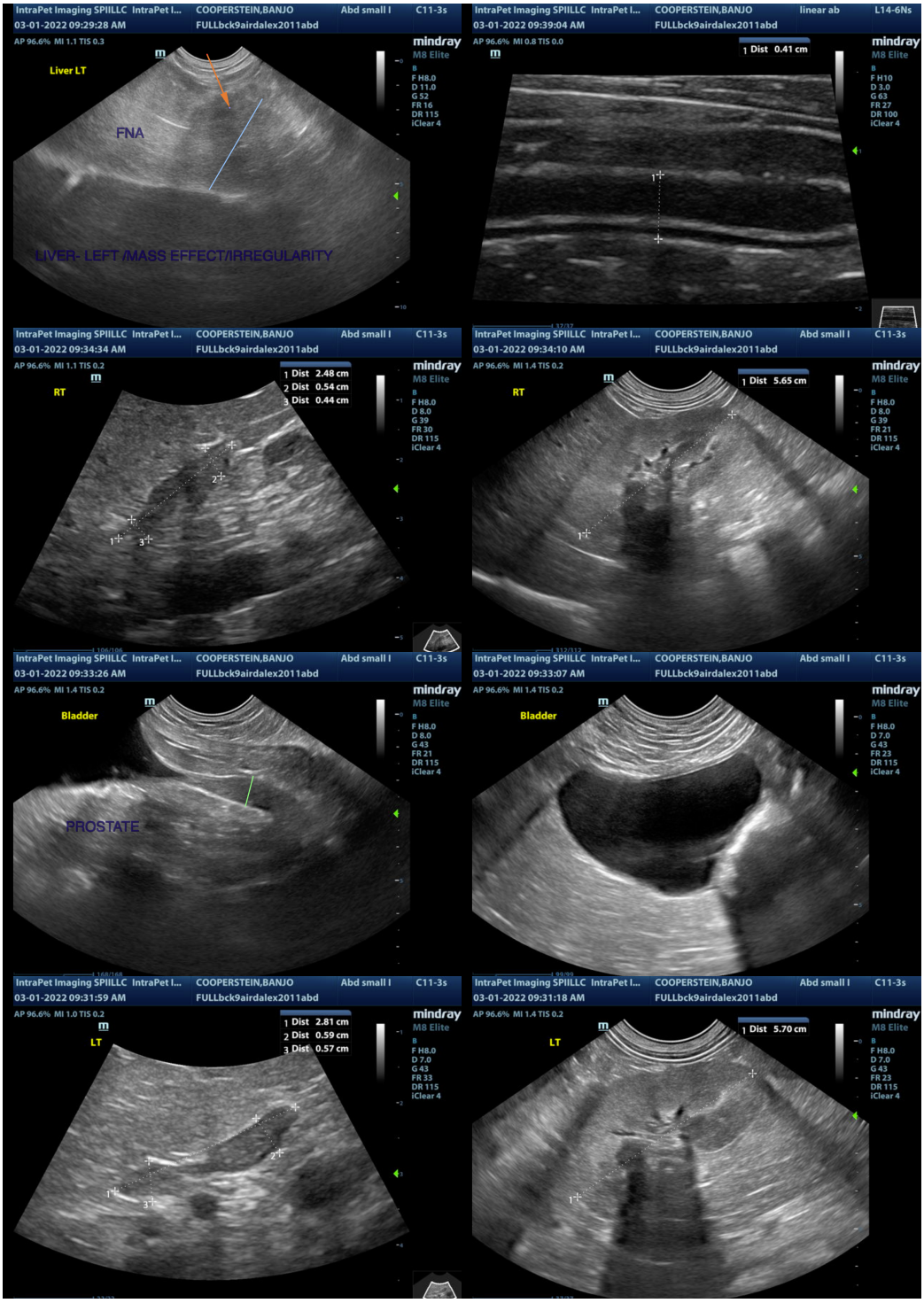
There is a small hypoechoic nodule in the spleen. This lesion does not deform the splenic capsule, but an underlying neoplastic process cannot be entirely ruled out. Options moving forward include continued monitoring or a fine needle aspirate if the spleen is in a position where it can be reached.

There is an irregular bulge in the left caudal portion of the liver. This lesion is isoechoic to the normal parenchyma and has a normal echotexture. Options moving forward include continued monitoring or fine needle aspirate.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

If the GI signs do not resolve with symptomatic therapy for acute gastroenteritis, then consider further evaluation with GI biopsies. If a more aggressive course of action is considered, you could remove the spleen and further evaluate the liver (biopsy or removal of abnormal area). Additionally, consider a hydrolyzed protein/novel protein diet, chronic probiotic therapy, and evaluation for GI parasites.

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AP 96.6% MI 1.1 TIS 0.3
Liver LT
FNA
LIVER- LEFT /MASS EFFECT/IRREGULARITY
mindray M8 Elite
IntraPet Imaging SPIILLC IntraPet I... COOPERSTEIN,BANJO linear ab L14-6Ns
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mindray M8 Elite
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RT
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2 Dist 0.54 cm
3 Dist 0.44 cm
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Bladder
PROSTATE
mindray M8 Elite
IntraPet Imaging SPIILLC IntraPet I... COOPERSTEIN,BANJO Abd small I C11-3s
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AP 96.6% MI 1.4 TIS 0.2
Bladder
mindray M8 Elite
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LT
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3 Dist 0.57 cm
mindray M8 Elite
IntraPet Imaging SPIILLC IntraPet I... COOPERSTEIN,BANJO Abd small I C11-3s
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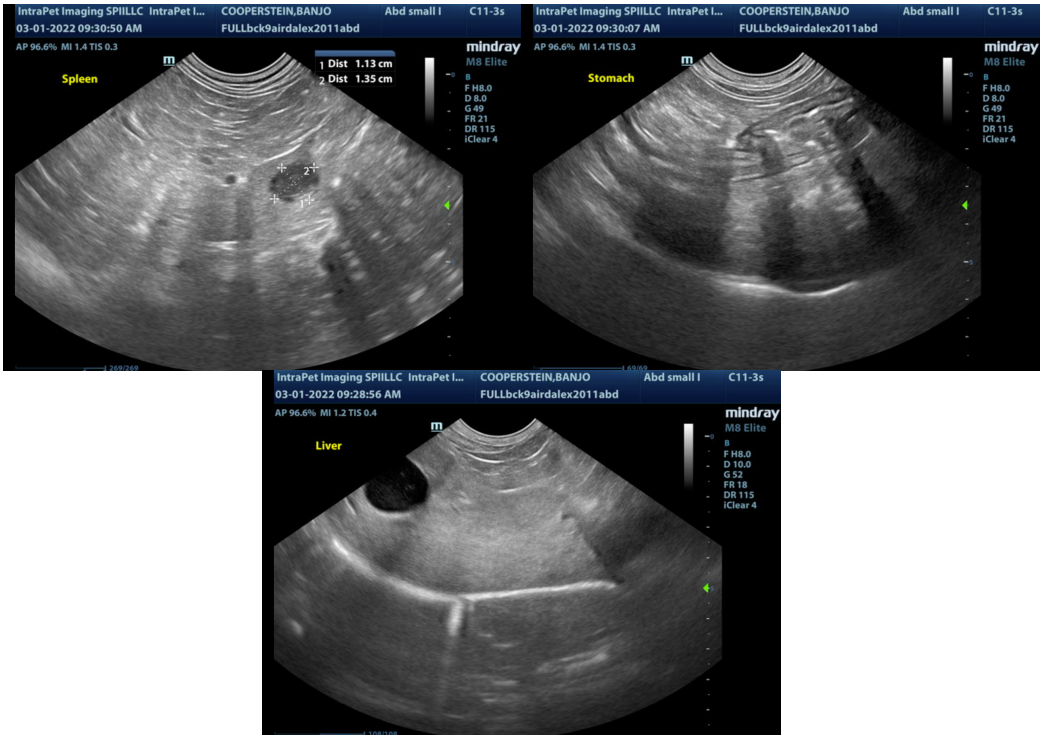
mindray M8 Elite



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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