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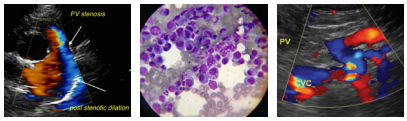

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DATE

3/17/22

PATIENT

Bella Shaffer

SPECIES

Canine

BREED

Pit Bull

SEX

Spayed Female

AGE

11/2/13

WEIGHT

86.6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Bay Country VH

REFERRING VET

Dr. McLean

INVOICE

36271

PRESENTING CLINICAL SIGNS

Diarrhea for approx. 4-6 weeks, not responsive to bland diet, Metronidazole, Fortiflora. On Prednisone for lower airway disease, presumed chronic bronchitis. Controlled hypothyroid. Labwork 3/15- elevated liver enzymes, kidney values, WBC.

Current Medications: Prednisone 10mg q24-48 hours, Thyro-tabs 0.4mg in AM, 0.2mg in PM.
Lab Results: Fecal 2/25/22 negative for parasites. CBC/Chem/UA 3/16/22- WBC 24.2 (4.9-17.6), Neutrophils 21828 (2940-12670), SDMA 21 (0-14), Creat 2.1 (0.5-1.5), BUN 46 (9-31), USG 1.014, ALT 233 (18-121), ALP 5-160), GGT 23 (0-13).
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 left kidney has a normal shape and size (6.6 cm) with pyelectasia at 0.30 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. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.75 cm) with pyelectasia at 0.27 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. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.55 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 0.70 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. The spleen echotexture is heterogenous and mildly mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. A hypoechoic nodule measuring 1.05 cm in diameter is visualized within the parenchyma.

Liver

The liver is large in size 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 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. Jejunum wall measured 0.47 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 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.

Other

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

ULTRASONOGRAPHIC FINDINGS

- Decreased corticomedullary distinction in both kidneys with mild bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Large, 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. These changes could be consistent with steroid hepatopathy due to the current Prednisone use.

- Mildly mottled spleen with small, hypoechoic 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are multiple issues going on with this patient. In the history provided, the liver enzymes are

significantly elevated. The liver appears large and heterogeneous. It is difficult to determine what percentage of this is due to the current Prednisone therapy. Ideally, I would recommend switching to an inhaled steroid for the bronchial disease (if possible, a cytologic diagnosis would be preferred), so that there is less of a systemic steroid effect complicating the clinical picture and potentially contributing to the obesity, etc. You could consider a liver function test and Lepto testing based on the elevation of liver enzymes as well.

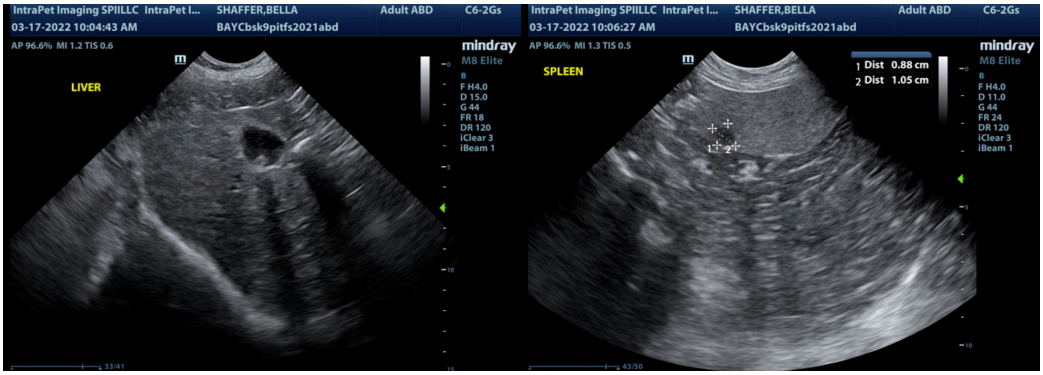
This patient is azotemic. The kidneys appear somewhat irregular and hyperechoic with reduced detail of layering and mild pyelectasia.

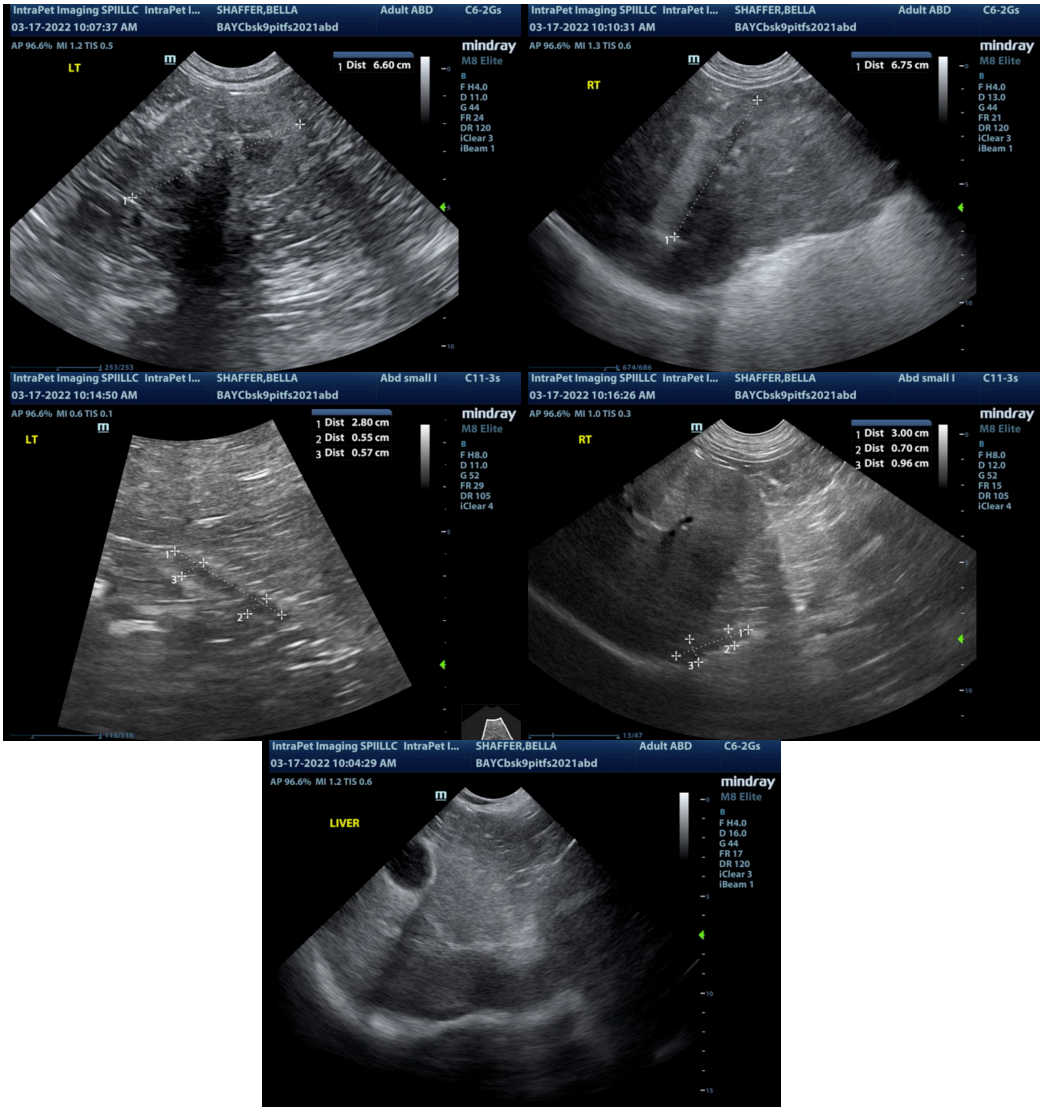
- Recommend blood pressure evaluation.
- Recommend urinalysis and culture.
- Recommend urine protein/creatinine ratio.
- Consider screening for Leptospirosis.

No focal lesions are visualized associated with the GI tract. It is not noted if we are dealing with a large or small bowel diarrhea. Possible differentials would include food allergy/dietary intolerance, GI parasitism, dysbiosis, and infectious enteritis, IBD, or less likely intestinal neoplasia.

- Recommend a novel protein/hydrolyzed protein prescription diet.
- Recommend chronic probiotic therapy.
- Consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine. If this is large bowel diarrhea, then consider a fecal pathogen assay.
- If symptoms persist, recommended upper and lower GI endoscopy.
- Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

There is a small nodule visualized within the spleen. Recommend a fine needle aspirate of the nodule (if able to reach it). If not, just of the spleen in general and continued monitoring of the hypoechoic nodule.





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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