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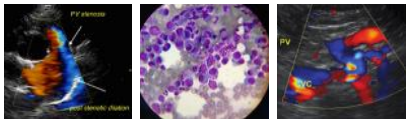

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DATE

5/10/22

PATIENT

Emmy Wilkins

SPECIES

Canine

BREED

Yorki-Poo

SEX

Spayed Female

AGE

5/9/16

WEIGHT

15.1 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Saubier

INVOICE

37581

PRESENTING CLINICAL SIGNS

Beginning approx. 1 week ago started having issues not passing normal stool, but was eating well. Owner was concerned about constipation. Seen at rDVM May 5th - 4DX performed and was recommended to start giving Miralax - owner giving ½ tsp. Now passing loose / stool stool but only small amounts. Lethargic and not eating well. Current diet - Rachel Rays, also gets pre-cooked chicken and jerky treats. Owner also gives pills on braunschweiger

Current Medications: Ampicillin, Buprenorphine, Cerenia, Protonix.
Lab Results: See attached.
Radiographs: Liver significantly enlarged. Moderate amount of gas in stomach. Very small amount stool in colon. Spleen appears significantly enlarged. Cardiac silhouette enlarged.
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 mildly echogenic urine. The Bladder wall, trigone, and ureteral papillae appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi. The proximal urethral is difficult to visualize due to its intrapelvic location, although there is the impression of possible mild thickening in this region with the urethral wall measuring 0.15 cm.

The left kidney has a normal shape and size (3.95 cm) with pyelectasia at 0.47 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 (4.77 cm) with pyelectasia at 0.64 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 borderline large in size and slightly irregular in shape, measuring 0.85 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 borderline large in size measuring 0.76 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 an irregular hypoechoic nodule visualized in the caudal third of the spleen, measuring 1.16 cm x 0.97 cm.

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 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 0.33 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 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. Prominent pancreatic duct noted at 0.15 cm.

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

- Questionable urethral wall thickening – Recommend urinalysis and culture to further investigate the echogenic debris in the urinary bladder and digital rectal exam to palpate the urethra.

- Slightly irregular adrenal glands with borderline bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

- Decreased corticomedullary distinction in both kidneys with 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.

- 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.

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

- 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

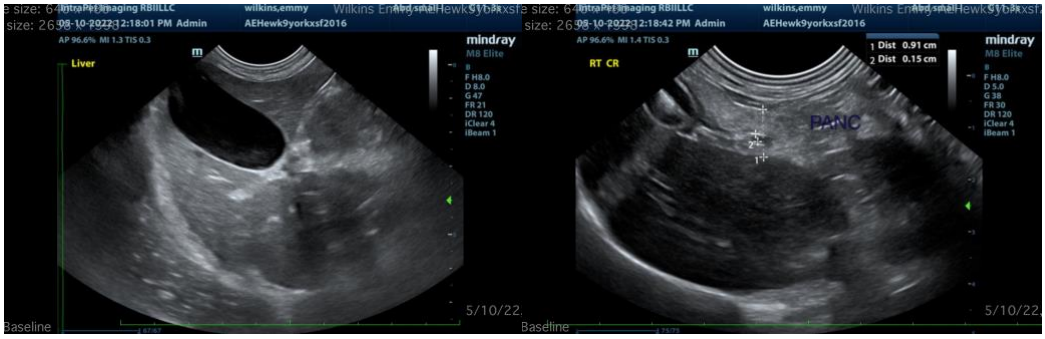
There are numerous abnormalities visualized, but it is difficult to determine an obvious cause for the symptoms described.

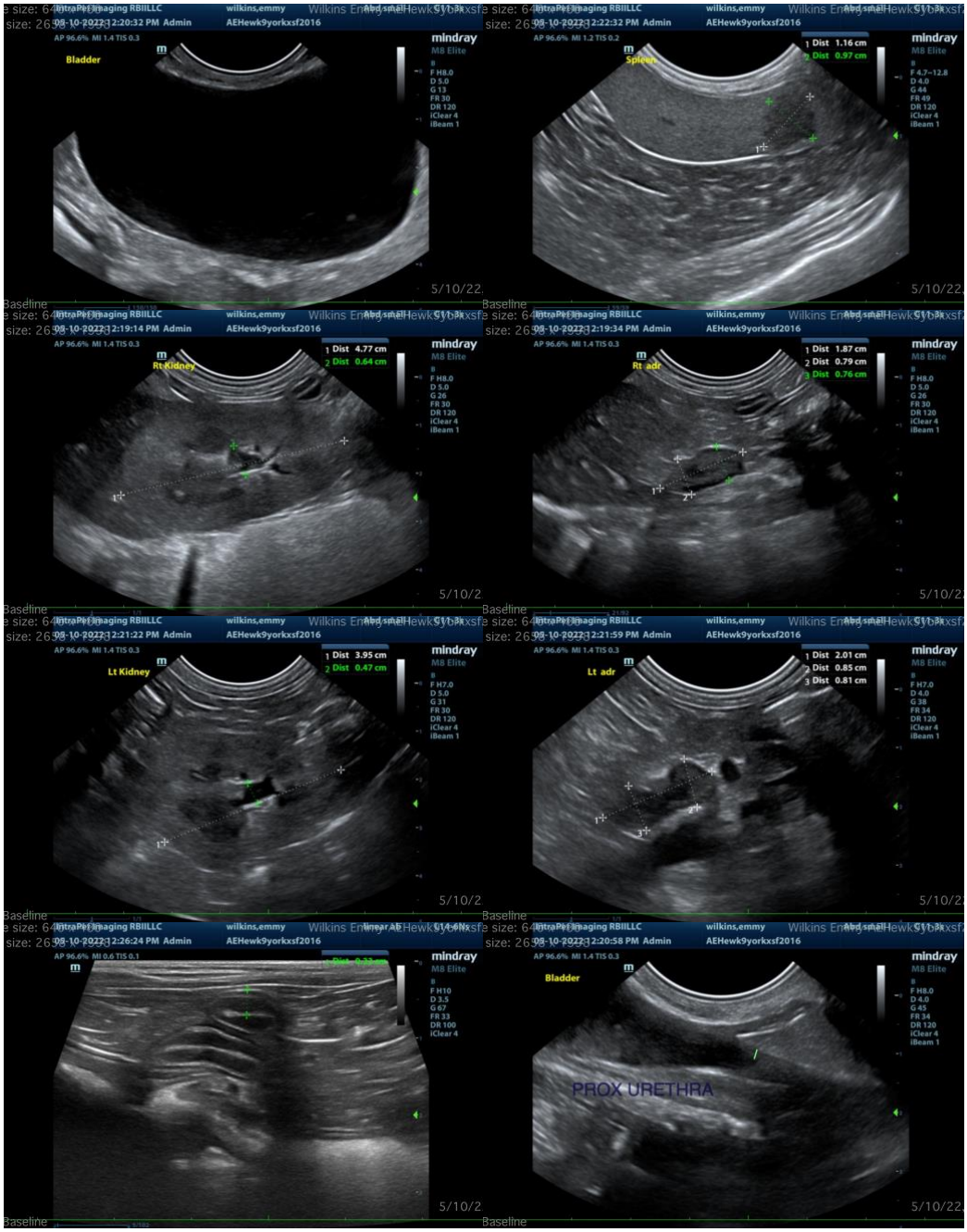
The urinary bladder is somewhat pelvic and difficult to visualize, but the proximal urethra appears slightly prominent. Correlate these findings with a digital rectal exam to palpate the urethra, looking for thickening or irregularity as well as a urinalysis and culture to look for evidence of inflammation or other abnormalities. If thickening is suspected, you could consider a urine BRAF test or urine catheter sampling for cytology (traumatic catheterization) if a bladder lesion is suspected. Additionally, there is bilateral pyelectasia, which could be consistent with PU/PD, pyelonephritis, or increased resistance in the kidneys. A culture will help to evaluate for pyelonephritis. Recommend blood pressure evaluation. If urinalysis and culture are normal, and the urethra palpates as normal, then the impression of these lesions could be less significant.

Both adrenals appear somewhat large for a dog of this size, and the left adrenal gland is particularly irregular. The symptoms described do not correlate with Cushing's disease, so adrenal function testing is not recommended at this time. Blood pressure evaluation is recommended and continued monitoring of both adrenal glands for change.

There is an ill-defined nodule within the spleen. Consider a fine needle aspirate of this lesion.

The pancreas is somewhat prominent. Consider a GI panel with a quantitative fPLI, TLI, cobalamin and folate (Texas A&M GI panel) to further evaluate this abnormality, and recommend symptomatic treatment for pancreatitis.





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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