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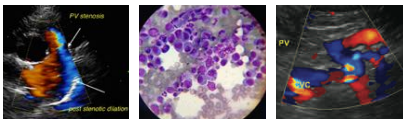

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DATE
2/8/20

PATIENT
Missy Arato

SPECIES
Canine

BREED
Sheltie

SEX
Spayed Female

AGE
8/7/07

WEIGHT
20.5 lbs

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

HOSPITAL NAME
Bel Air VH

REFERRING VET
Dr. Schmidt

INVOICE
95883

PRESENTING CLINICAL SIGNS

History: 1/21/2022: Limping- not acting right. Pet has continued to do poorly. Decreased appetite, vomiting. 2/5/2022: not eating, did subcutaneous fluids and sent home meds.
Current Medications: Cerenia 24mg 1 by mouth once a day. Mirtazapine 15mg 1 by mouth once a day.
Lab Results: 1/22/2022: BUN =46, Creat.= 1.6, UA specific gravity= 1.009, protein = 1 positive. Attached separately.
Radiographs: Intestinal gas present. Attached separately.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately to mildly distended with anechoic urine. The bladder wall appears diffusely slightly irregular, but does not appear overtly thickened and there are no focal lesions. The area of the trigone, proximal urethra and ureteral papillae appear normal with no evidence of mass effect or calculi. The changes are likely most consistent with lack of urine distension, possibly bacterial cystitis.

The left kidney has a normal shape and size (4.23 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. Minor pyelectasia was noted and measured 0.13 cm. Numerous, non-obstructive nephroliths were noted. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and normal to borderline small in size (3.35 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. Pyelectasia was noted and measured 0.25 cm. Numerous, non-obstructive nephroliths were noted. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.71 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 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. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. 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

gallbladder 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 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. The duodenum measured as normal and the jejunum measured as normal (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 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.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Decreased corticomedullary distinction in both kidneys with non-obstructive nephroliths and mild to moderate pyelectasia. The bilateral renal findings are consistent with age-related change. Pyelectasia of both kidneys could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. Additionally the right kidney appears somewhat smaller with more nephroliths concentrated within the area of the renal pelvis. Continued monitoring for obstruction should be implemented.

- Moderate gallbladder sludge. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting. This material is fairly consolidated and there is no overt inflammation associated with the gallbladder.

SECONDARY FINDINGS:

- Mildly irregular wall of the urinary bladder. The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

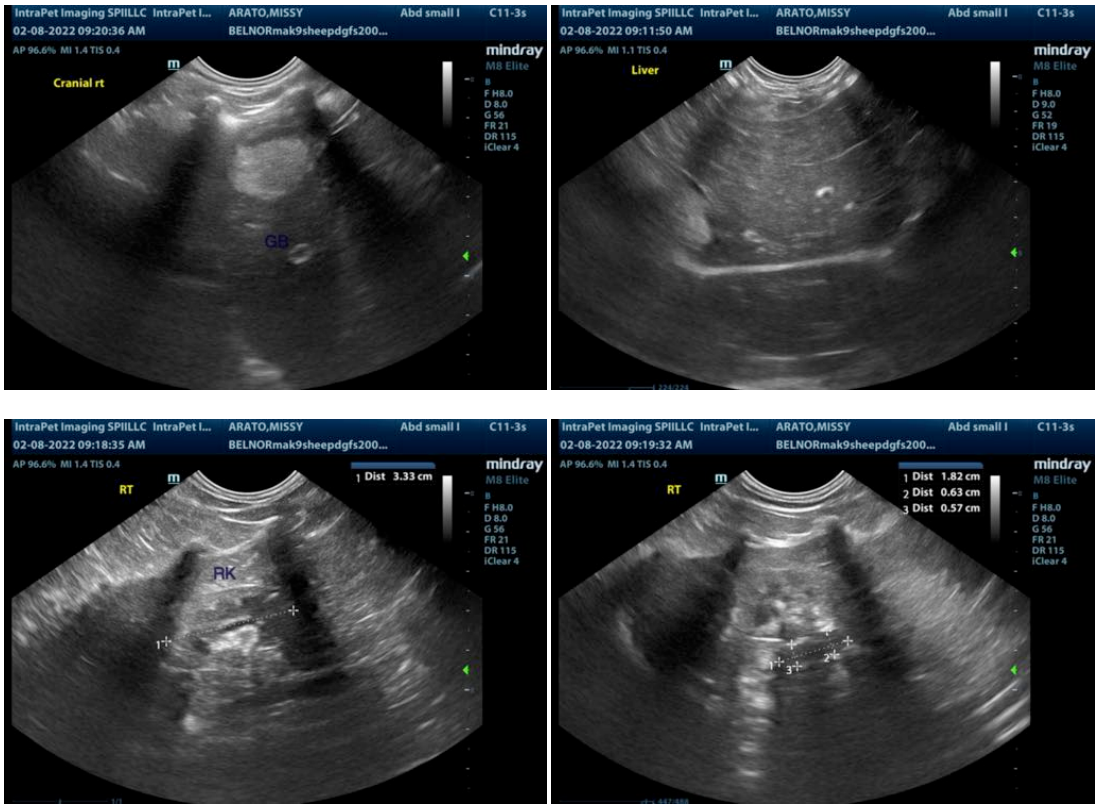
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

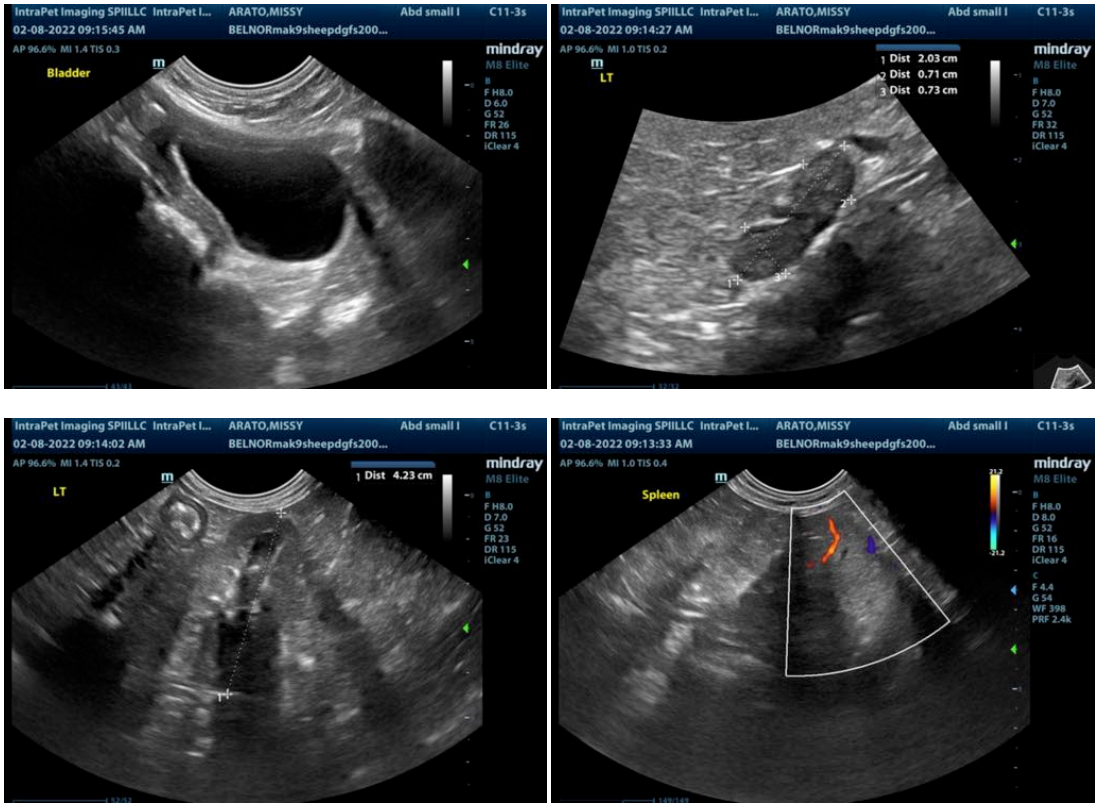
There are no obvious focal lesions visualized to explain the inappetence and vomiting reported. Both kidneys look somewhat irregular with decreased corticomedullary distinction, which can be a common finding in older pet. Additionally there are some nephroliths present and mild pyelectasia.

- I recommend urinalysis and culture to screen for possible pyelonephritis.
- I recommend blood pressure evaluation.
- I recommend continued monitoring with ultrasound to look for progressive dilation, which could be an indicator of partial obstruction.

There is a fair amount of debris within the gallbladder. I suspect this is an incidental finding, but if liver enzyme elevations develop you can consider medical therapy for cholecystitis (antibiotics with Ursodiol) in addition to a recheck of the gallbladder with ultrasound.

As no obvious cause is identified consider supportive general care with fluid therapy and nausea medications, antibiotics for possible UTI while waiting for test results and three view thoracic radiographs.





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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