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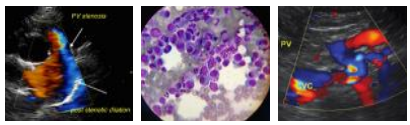

SonoPath
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DATE

4/29/22

PATIENT

Tessie Gregoire

SPECIES

Canine

BREED

Golden X

SEX

Spayed Female

AGE

2/28/08

WEIGHT

36 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Honeygo AH

REFERRING VET

Dr. Mullenex

INVOICE

37299

PRESENTING CLINICAL SIGNS

Recurrent PU/PD with recurrent UTIs-- 4 since 7/2021. Improves on antibiotics, has normal UA immediately post antibiotics then relapses

Current Medications: 3/29/2022 Baytril 68mg 1/2 tab BID for 10 days.
Lab Results: Creatinine chronically elevated 1.8-2.1 since 2020. UA--rods >50-100 and WBC 10-20--7/13/21 and 3/30/2022 and 4/26/2022. UA normal after antibiotics.
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 mildly distended with anechoic urine. The Bladder wall appears thickened and irregular in the apical portion, measuring at a thickness of 0.72 cm. In the area of the trigone, ureteral papillae and proximal urethra, this thickening is not present, and there is no evidence of calculi or mass lesions. These changes are most consistent with focal cystitis/lack of urine distention, but this lesion should be monitored for resolution when the urinary tract infection has resolved.

The left kidney has a normal shape and size (5.06 cm) and occasional pinpoint non-obstructive nephroliths. 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 pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.27 cm) and occasional pinpoint non-obstructive nephroliths. 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 pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.76 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 0.64 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 gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris. There is a 1.2 cm

hyperechoic, shadowing structure, most consistent with a stone. There is no evidence of bile duct dilation. These changes can be consistent with an early gall bladder mucocele.

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 (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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

- Focal thickening of the urinary bladder wall (apical portion) – likely associated with the chronic cystitis, but this lesion should be monitored, as it should resolve when the urinary tract infection has resolved.

- Decreased corticomedullary distinction in both kidneys with pinpoint non-obstructive nephroliths – The bilateral renal findings are consistent with age-related change.

- Large amount of debris within the gallbladder including a shadowing, hyperechoic calculus. There is no evidence of obstruction at this time, but continued monitoring is warranted.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

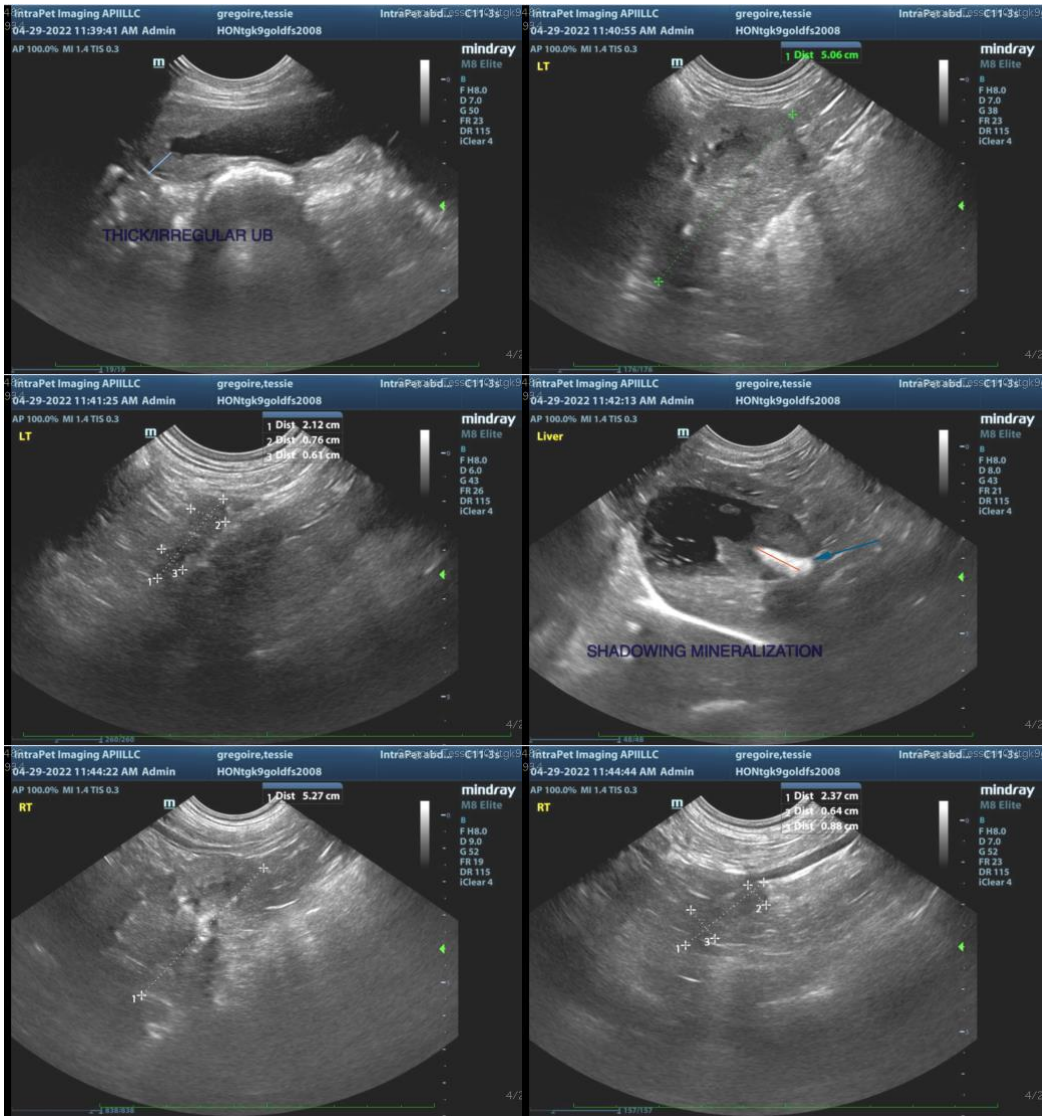
The urinary bladder wall is focally thickened in the apical portion. I suspect this is secondary to the urinary tract infections. Recheck this lesion mid treatment to ensure that it has resolved. With these cases of recurrent urinary tract infections, it is very important that all infections are treated based on culture and sensitivity results so as to avoid inducing resistance.

- Look for metabolic causes of recurrent urinary tract infections – This includes diabetes, Cushing's disease, renal disease, and anything causing immunosuppression or lack of urine concentrating ability.

- If no metabolic causes are found, look for anatomic abnormalities such as juvenile vulva/vulvar

hooding, perivulvar dermatitis, vaginal abnormalities (perform a vaginal exam), orthopedic or spinal issues (lack of ability to enter urinary bladder), etc., and ensure that you are treating the infections long enough that they have truly resolved and that all bladder wall thickening has resolved.

- Depending on the type of infections culture, sometimes there are ancillary therapies such as cranberry supplementation, using wipes, etc. that can be implemented.
- Recommend chronic probiotic therapy.
- If the apical wall thickening does not resolve with treatment of the urinary tract infection, recommend biopsy and culture of this tissue via cystoscopy.



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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