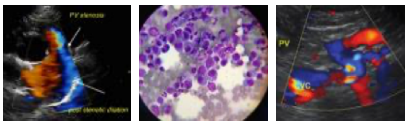
IMAGING PERFORMED BY

IntraPet.com



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DATE

8/29/22

PATIENT

Sami Goetz

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Male, neutered

AGE

12/21/2011

WEIGHT

8.6 lbs.

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Kalwa

INVOICE

13891

PRESENTING CLINICAL SIGNS

Referral from Urgent Vet Care PC: Kidney + urinary bladder stones, azotemia (severe), weight loss (unintentional Hx: 3 cystotomies in the past - CBC/CHEM/LYTES: BUN: 106; Crea 5.9; K 6.2; Phos 7.5 - UA: 1014 usg, no bacteria/ crystals - Thorax xrays: "no obvious cancer, normal cardiac silhouette" - Urine culture pending - SO diet - Not a urinary obstruction - Plan for time on IVF, abx, monitor kidney values, cystotomy in few days ATO- - Since 4 yrs of age urinary bladder stones- last one in august 2019 - Has had stones since did not have another surgery, elected to monitor - Also has kidney stones - Hx of intermittent blood in urine - Had teeth cleaned 7/26/22- BUN was 36 - Normall is a very energetic dog, loves toys - Recently not himself, hiding under the bed, vomited 3x in the last 1.5 weeks- not eating, not drinking - rDVM wednesday, exam, no bloodwork - Unwanted weight loss the last year - Friday kidney values were elevated + phosphorous, xrays showed kidney + urinary bladder stones. Told poor prognosis, sent home with epakitin, entyce, hills KD diet (no longer urinary SO) - O took home and worried he would decline - Went to urgent care and had bloodwork and xrays- came here

Current Medications: Buprenorphine, Gabapentin, Unasyn,, Protonix, Cerenia, Vitamin B12.
Radiographs: Renal mineralization urinary bladder stone U cath in place.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

On initial evaluation, the urinary bladder is contracted and a Foley catheter is present within the lumen. At the end of the study, the bladder is more distended. The wall in the region of the apex is thickened (up to 0.56 cm) and irregular. Several cystic calculi are observed.

The prostate is not definitively visualized due to its pelvic location.

The left kidney is normal size (4.52 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. Mild pyelectasia is present (0.20 cm in the transverse plane). Non-obstructive nephroliths are visualized, the largest measuring 1.00 cm in diameter. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.77 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. Trace pyelectasia is present (0.13 cm in the transverse plane). Non-obstructive nephroliths are visualized, the largest measuring 1.00 cm in diameter. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.58 cm at cranial pole) (0.56 cm at caudal pole) (1.66 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is borderline enlarged (0.54 cm at cranial pole) (0.53 cm at caudal pole) (1.57 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen
The spleen is subjectively normal in size (0.93 cm in width at the level of the hilus) with an undulated medial contour. The parenchyma is hypoechoic relative to the spleen. A few varying size hyperechoic nodules are observed throughout the organ. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

Liver
The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The portal vein: caudal vena cava ratio is approximately 1:1. The gall bladder lumen is distended. The wall is normal in thickness. A few polypoid like lesions are arising from the luminal surface. A small amount of aggregated, echogenic debris is suspended within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas
The and right limb of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen
Trace free fluid is suspected adjacent to the urinary bladder. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS
Primary Findings:

- The bilateral renal changes are consistent with chronic interstitial nephrosis/nephritis with non-obstructive nephrolithiasis and a trace pyelectasia.
- Cystic calculi with urinary bladder wall changes suggestive of cystitis.
- Questionable trace ascites.

Secondary Findings:

- The mild bilateral adrenomegaly may be a normal variant for this patient or may represent early hyperplastic change.
- The hyperechoic splenic nodules trend toward the benign (i.e., myelolipomas) with a low possibility of emerging neoplasia.

- The hypoechoic hepatic nodule also trends toward the benign (i.e., regenerative nodule) with a lower possibility of emerging tumor.

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the azotemia and sonographic changes, consider the following:

    1. UPC (if proteinuria is present and the urine culture is negative).

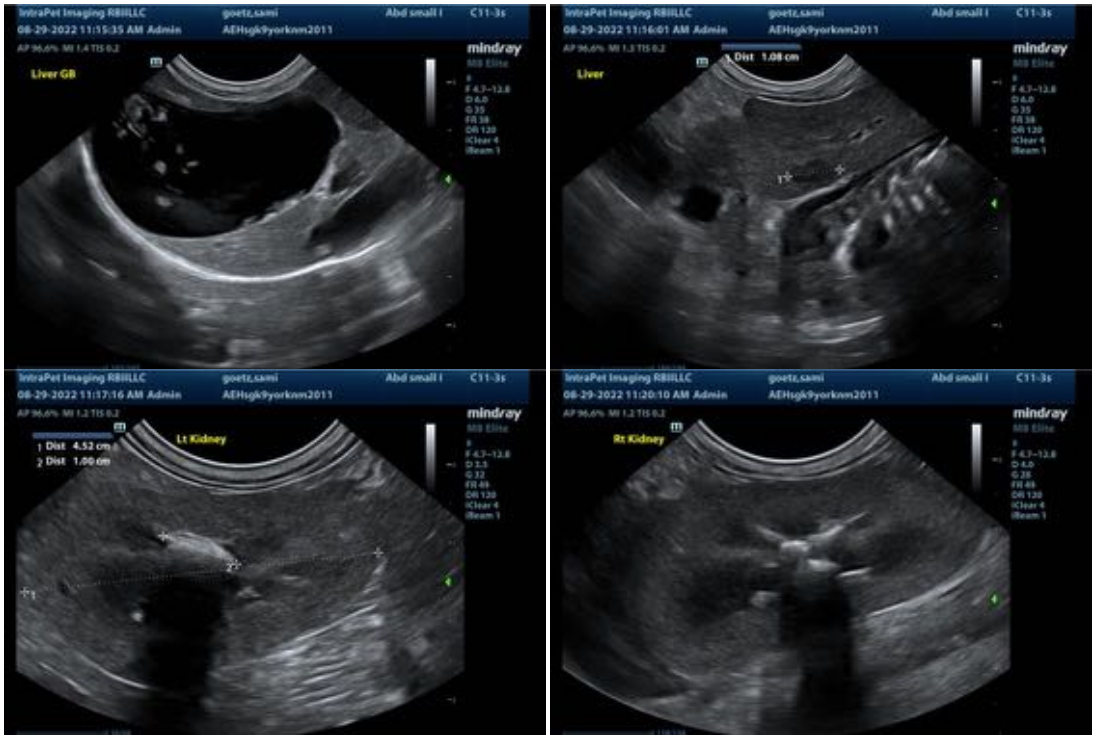
    2. Baseline blood pressure measurement.

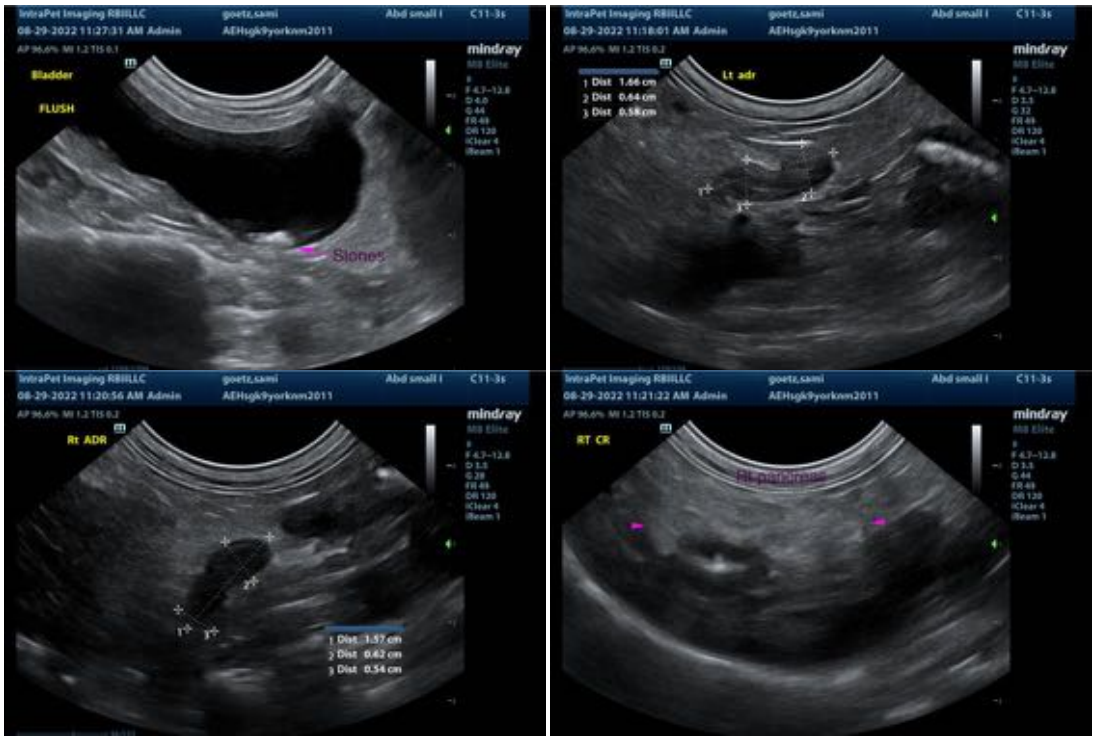
    3. IV fluid diuresis along with gastric protectants, broad spectrum antibiotics (while awaiting urine culture and sensitivity results) and supportive care. Regarding antibiotic therapy, consider the use of a fluoroquinolone which has good renal tissue penetration.

    4. Close monitoring of the patient's renal values is recommended to assess for response to therapy.

- Three-view thoracic radiographs are recommended to assess cardiopulmonary status, particularly if IV fluid diuresis is to be continued.

- If the patient's azotemia does not improve with aggressive supportive care, hemodialysis or quality of life should be considered.





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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