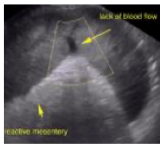
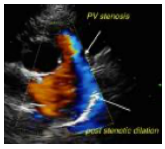
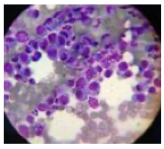
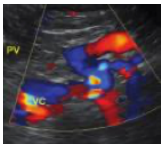
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Mr. Darcy Loofboro

SPECIES

Canine

BREED

Papillon

SEX

Neutered Male

AGE

12 years

WEIGHT

5 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr, Isermann

HOSPITAL NAME

Animal EH Volusia

REFERRING VET

Dr. Isermann

INVOICE

12997

DATE

5.11.23

PRESENTING CLINICAL SIGNS

History: Presented for DKA
Diabetic for the past year, was left with the pet sitter and wasn't given insulin for 4-5 days.

Abnormal PE/Chem/CBC/UA Results: BUN 62
Creatinine 1.72. phos: 7.2. trace ketones. Cortisol of 26. CPLI abnormal

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. One to two tiny cystic calculi are visualized. The remaining luminal contents are anechoic. The region of the trigone is normal.

The region of the prostate is not visualized due to its pelvic location.

The left kidney is normal in size (4.40 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few nonobstructive nephroliths are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter.

The right kidney is normal in size (4.83 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Moderate pyelectasia is present (0.57 cm in the longitudinal plane). There is no evidence of infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is enlarged (1.29 cm at cranial pole) (0.96 cm at caudal pole) with an irregular shape. The parenchyma is heterogenous with loss of glandular detail. Surrounding vasculature appears normal.

The right adrenal gland is enlarged (3.63 cm at cranial pole) (2.45 cm at caudal pole) with a mass effect. The parenchyma is heterogenous with a small focus of mineralization (0.63 cm in diameter) and loss of glandular detail. There is no obvious evidence of vascular invasion.

Spleen

The spleen is normal in size (0.93 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

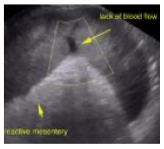
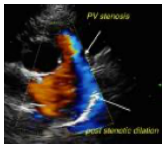
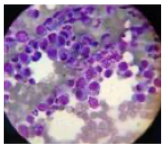
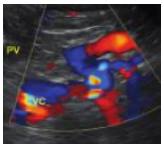
Liver

The liver is subjectively enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly mottled in appearance, with a few ill-defined hypoechoic nodules/areas. A 0.62 cm cyst is observed on the right side. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder is distended. The wall is normal in thickness. A moderate amount of aggregated, echogenic suspended sludge with some stranding to the periphery is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract appears patent. The small intestinal lumen is segmentally

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dilated with chyme. In one small intestinal segment, soft, shadowing material is visible. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. The colonic lumen appears to contain shadowing fecal material. There is no obvious evidence of an obstructive pattern.

Pancreas

The right limb is visible with minimal deviation from the normal peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat and subtly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated. The mesentery effacing the serosal surface is mildly hyperechoic.

Free Abdomen

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral adrenomegaly with a right adrenal mass effect. Differentials include bilateral tumors (i.e., adenomas, adenocarcinomas, pheochromocytomas). Bilateral benign macronodular hyperplasia or a unilateral tumor (right adrenal) with hyperplastic change in the left adrenal gland.
- Bilateral chronic renal changes with nonobstructive nephrocalcinosis and pyelectasia (more severe in the right kidney)
- The pancreatic changes are suggestive of chronic active pancreatitis.
- The gallbladder changes are consistent with a developing mucocele.
- Tiny cystic calculi

Secondary Findings

- Nonspecific diffuse hepatopathy. Differentials include vacuolar hepatopathy (i.e., secondary to diabetes mellites), regenerative nodular hyperplasia, age-related remodeling, inflammatory disease, infiltrative neoplasia (less likely), other hepatopathy. Correlation with the patient's liver values is recommended.
- The shadowing material within the small intestinal lumen is suggestive of foreign material (i.e., grass, other) appears transient/nonobstructive at the time of this study.

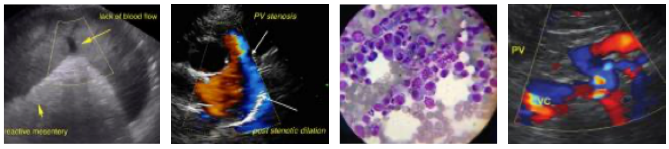
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the azotemia and bilateral renal changes, consider the following:

  1. Urinalysis with culture and sensitivity
  2. Baseline blood pressure measurement
  3. UPC (if proteinuria is present in the absence of infection)

- Regarding the adrenal changes, consider the following:

  1. Three-view thoracic radiographs to assess for pulmonary metastatic disease
  2. Baseline blood pressure measurement (as above) to assess for systemic hypertension



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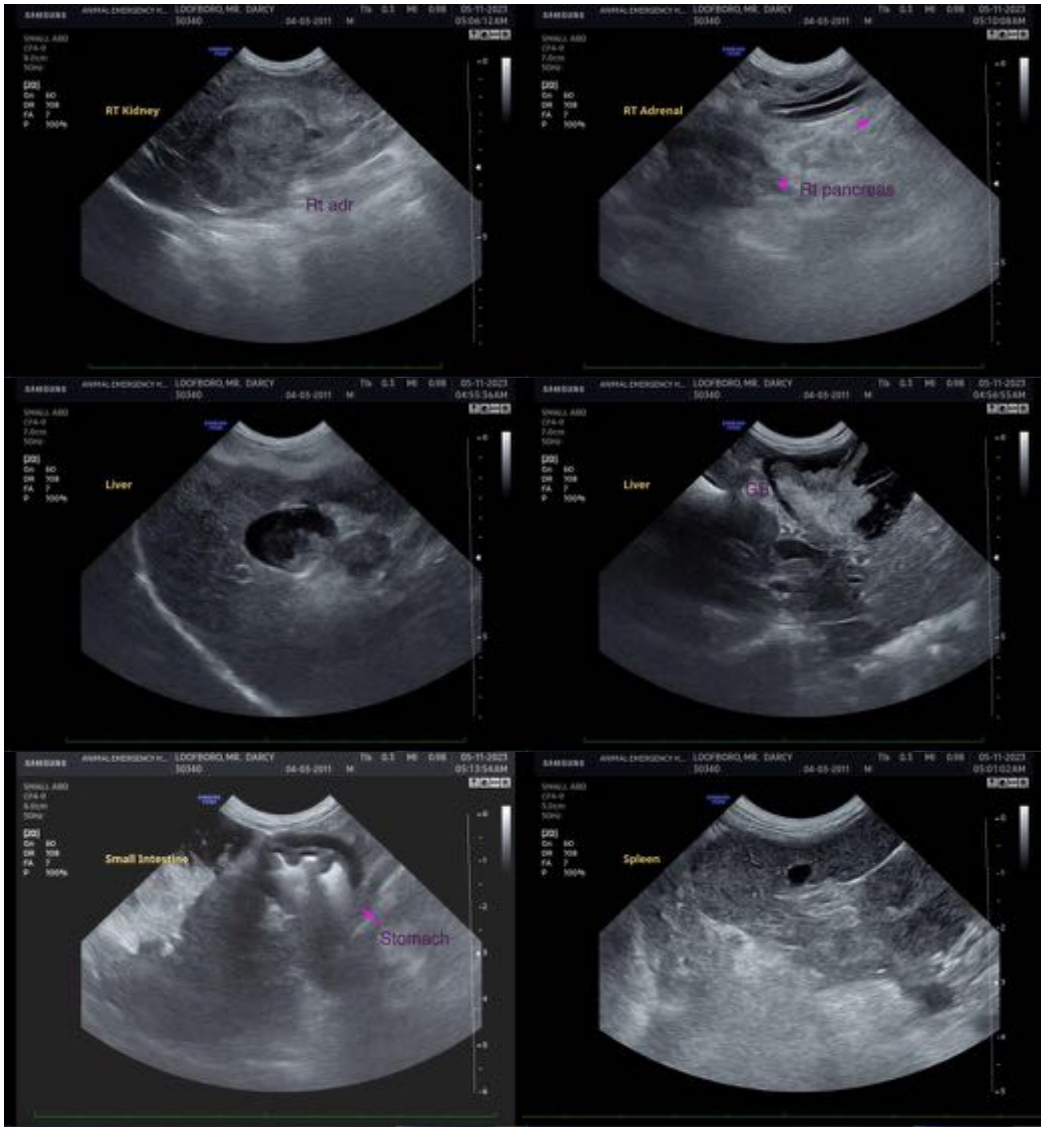
3. Consider further testing for a functional tumor (i.e., low-dose dexamethasone suppression test, urine/blood catecholamine levels) when the patient's ketoacidotic status has stabilized.

- Following test results, empirical treatment for diabetic ketoacidosis is recommended, including regular insulin, fluid therapy, broad-spectrum antibiotics (while awaiting urine culture and sensitivity results) and other symptomatic therapy.

- Regarding the cystic calculi, consider a cystotomy with stone removal, analysis and culture when the patient's condition is stable. Alternatively, an attempt at medical dissolution can be considered.



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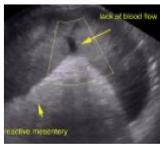
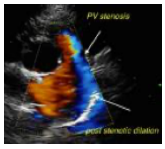
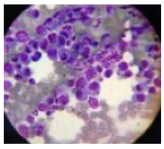
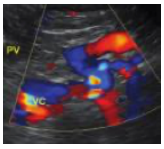

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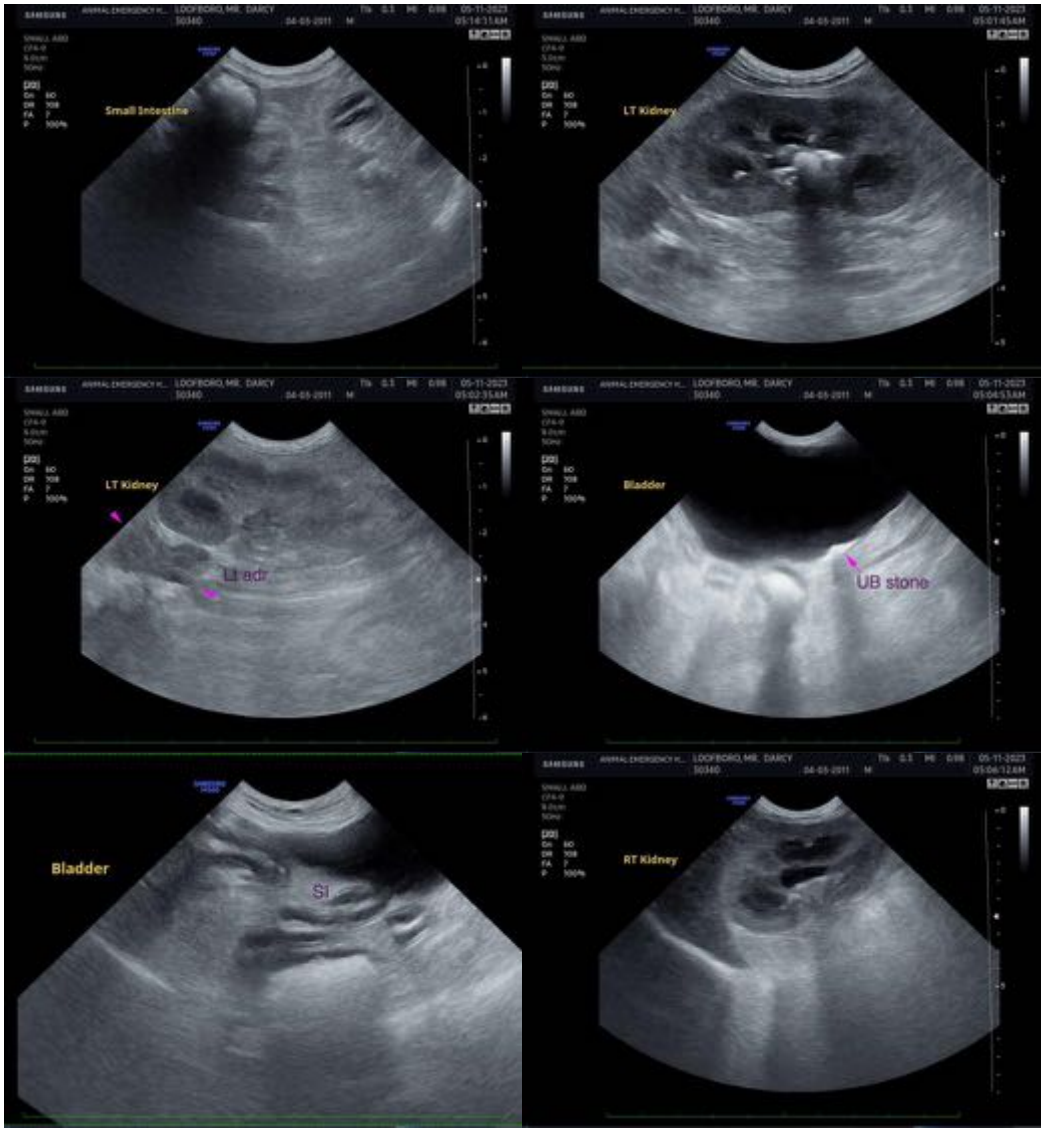

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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