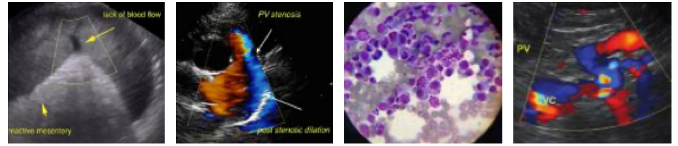


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Lucy Glenn

SPECIES
Canine

BREED
Terrier mix

SEX
Female, spayed

AGE
10 Yrs.

WEIGHT
15.2 lbs.

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

IMAGING PERFORMED BY
Dr. Goodman

HOSPITAL NAME
Evendale-Blue Ash PH

REFERRING VET
Dr. Goodman

INVOICE
13982

DATE
9/19/22

PRESENTING CLINICAL SIGNS

History: Prev history of isosthenuria in 2021, rechecked first morning urine one week later and USG was >1.050. Presented 5/25/22 for annual bloodwork. BW showed elevated ALP and ALT, dilute urine and protein loss. Started on denamarin and amoxi tri clav and rechecked ALT, ALP and urine on 8/11/22. Liver values still elevated, protein loss still present in urine. UPC sent to lab 8/11/22 (results attached). Patient is doing well at home otherwise. Not currently on denamarin when we rechecked values on 8/11/22 due to it being difficult to get into patient. 2 weeks ago started a Kirkland brand multi-vitamin with liver support.

No overt evidence of Cushing's disease (no PU/PD or polyphagia). Most recent chem panel shows ALP of 255, ALT of 160, USG 1.028 with proteinuria. UPC 2.4.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal in size (4.36 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. There is no evidence of pyelectasia, infarcts or hydronephrosis.

The right kidney is normal size (4.71 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.41 cm at cranial pole) (0.47 cm at caudal pole); 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.

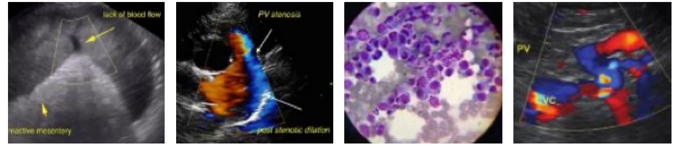
The right adrenal gland is normal size (0.62 cm at cranial pole) (0.40 cm at caudal pole) (2.08 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.53 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 prominent in size with swollen margin on the right side. The parenchyma is isoechoic relative to the spleen. On the right side, a 4.8 cm slightly hyperechoic to mildly heterogeneous swelling/mass is observed at the caudal aspect. The swelling causes capsular expansion. The remaining



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hepatic parenchyma is homogeneous. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A scant amount of echogenic debris is observed 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 region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

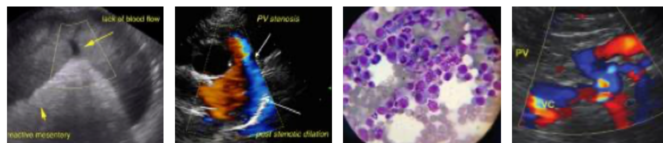
- Right caudal hepatic swelling/mass. Differentials include a benign process (i.e., excessive regenerative nodular hyperplasia, inflammatory focus) vs an emerging tumor (i.e., adenoma, adenocarcinoma, other).

Secondary Findings:

- Minor, age-related chronic renal changes with subtle dystrophic mineralization.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- A fine needle aspirate of the hepatic swelling is recommended (if clotting status is appropriate). If cytology results are inconclusive, surgical biopsy +/- removal may be necessary to get a definitive diagnosis.
- Regarding the proteinuria, consider the following:
  1. Consider further testing for infectious diseases (i.e., heartworm, tick borne, Leptospirosis) as well as three-view thoracic radiographs to assess for occult neoplasia in the chest.
  2. Angiotensin II receptor blocker (e.g., Telmisartan) +/- ACE inhibitor
  3. Antithrombotic (e.g., Clopidogrel at 2.5 mg/kg PO q 24 hours)
  4. Omega-3 fatty acids (65 mg/kg of DHA and EPA combined daily)
  5. Prescription renal diet



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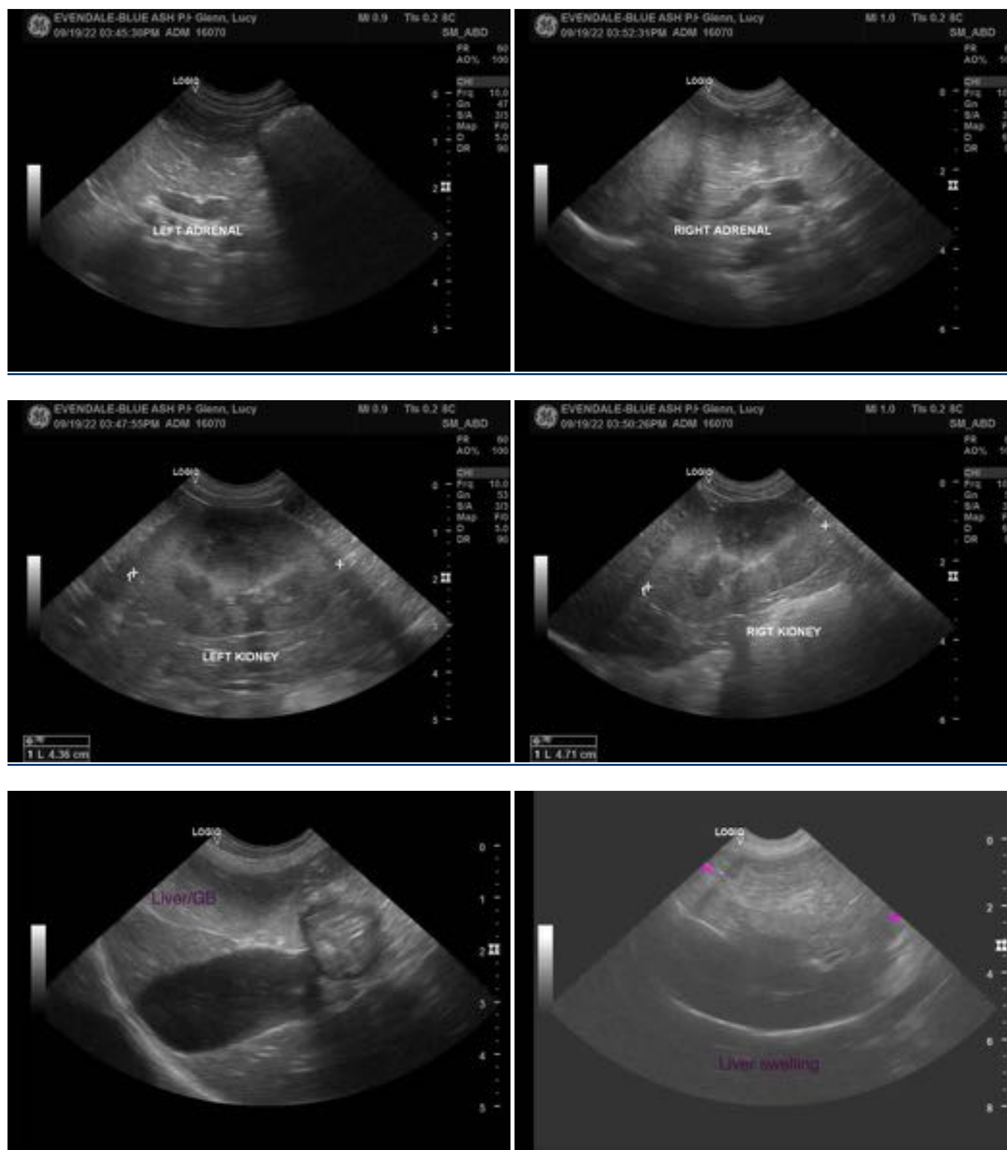
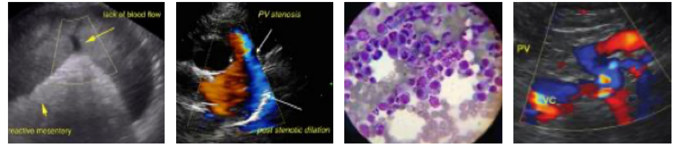
6. Baseline blood pressure measurement with serial monitoring thereafter

7. Routine monitoring of UPC and bloodwork (CBC, chemistry panel) to assess for progressive disease



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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