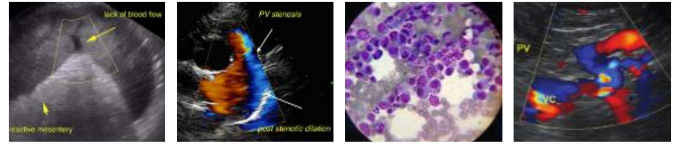


SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Bella Aguilar

SPECIES

Canine

BREED

Boxer

SEX

Female Spayed

AGE

5 years

WEIGHT

65 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Sonya Myers DVM

HOSPITAL NAME

Banfield Oviedo

REFERRING VET

Narayansingh

INVOICE

14123

DATE

8.16.23

PRESENTING CLINICAL SIGNS

Evaluate kidneys. Hx of elevated BUN, Creat, SDMA, cPL. USG 1.020, proteinuria 300, UPC >2.14. Hypertension sys 186 dia 107 map 124. On amoxicillin 500 mg q12h 14 d, Amlodipine 2.5mg 1tab q24h

Twenty-five still images and 18 video clips are available for interpretation.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal in size (7.31 cm in length) with a relatively normal shape. The cortex is mildly thickened and hyperechoic relative to the spleen, with poor corticomedullary distinction. Mild pyelectasia is present (0.27 cm in the longitudinal plane). There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal in size (6.37 cm in length) with a slightly irregular shape. The cortex is mildly thickened and hyperechoic relative to the spleen, with poor corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths or hydroureter.

Adrenal Glands

The left adrenal gland is normal in length with a slightly flattened contour (0.47 cm at cranial pole) (0.52 cm at caudal pole) with a normal shape and 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 in length with a slightly flattened contour (0.74 cm at cranial pole) (0.41 cm at caudal pole) with a normal shape and 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 (1.89 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.

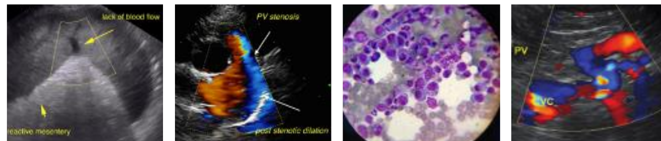
Liver

The liver is subjectively 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 gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen. The duodenal papilla is normal in size (0.45 cm in width).

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly to moderately distended with ingesta. 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 segmentally dilated with chyme. The small intestinal wall is normal in thickness with a normal layering



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pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. A 3.22 x 0.45 cm medial iliac lymph node is visualized. The node is normal in shape and echogenicity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral chronic nephropathy. Given the patient's clinical history, a protein-losing nephropathy (PLN) is suspected. Most PLNs are idiopathic. However, they can be secondary to infectious, inflammatory or neoplastic diseases.

Secondary Findings

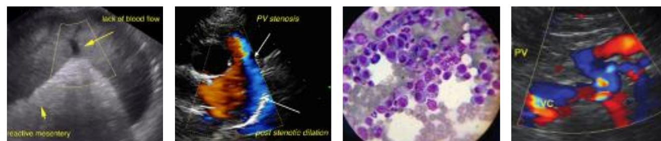
- If the patient was fasted for this study, the presence of ingesta within the gastric lumen could suggest delayed gastric emptying.
- The flattened adrenal glands may be a normal variant or could be consistent with early atrophy (i.e., secondary to hypoadrenocorticism)
- Minor pancreatic parenchymal remodeling
- The prominent medial iliac lymph node is likely reactive with a low possibility of emerging neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the likelihood of a protein-losing nephropathy, consider the following:

  1. Three-view thoracic radiographs to assess for occult disease in the chest
  2. Further testing for infectious diseases (i.e., tick-borne, Leptospirosis)
  3. Urine culture and sensitivity (preferably on a pre-antibiotic sample, or 5-7 days following the last dose of antibiotics).
  4. Initiation of an angiotensin receptor blocker (i.e., telmisartan) +/- an ACE inhibitor for the proteinuria.
  5. Initiation of omega 3 fatty acids for their renoprotective effects.
  6. +/- initiation of an anti-thrombotic agent (i.e., clopidogrel)
  7. Transitioning to a prescription renal diet
  8. Serial monitoring of the patient's renal values, UPC and blood pressure is recommended to assess for progression of disease.

- Given the flattened adrenal glands, consider a resting cortisol level to screen for hypoadrenocorticism.



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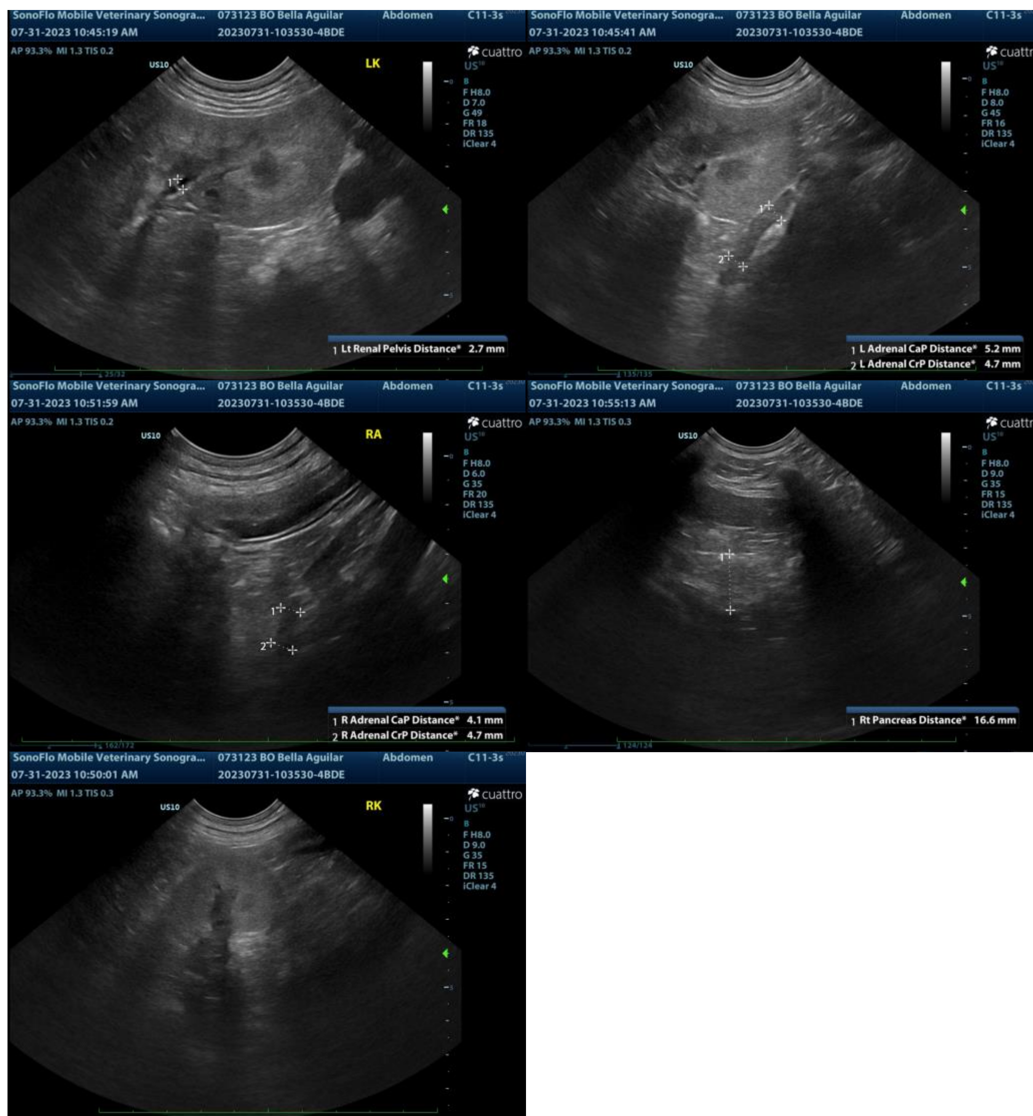

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
info@SonoPath.com