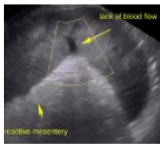
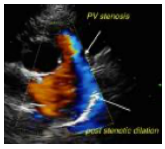
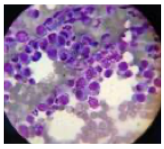
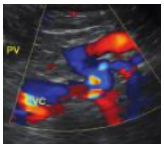
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Pia Baulinha Hernandez

SPECIES

Canine

BREED

Chinese Shar Pei

SEX

Intact Female

AGE

7 years

WEIGHT

26.4 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Hernandez Dr. Ferrer, DVM

HOSPITAL NAME

Paseos VC

REFERRING VET

Dr. Maria Martes

INVOICE

14019

DATE

8.9.23

PRESENTING CLINICAL SIGNS

History: Patient was presented for a recheck of kidney values. She was taken to an emergency veterinary clinic on Sunday due to pain and stiffness. Renal values were elevated. Fecal was negative per owner. Owners decided to take home and administer LRS IVF. She vomits when drinking water. She is defecating and urinating normally. She eats renal canned diet (1 can in 2 days). Appetite is greatly reduced. She is on Azodyl and Epakitin.

Abnormal PE/Chem/CBC/UA Results: CBC RBC: 5.20 M/µL (5.65 - 8.87) HCT: 37.0 %9 (37.3 - 61.7) HGB: 12.9 g/dL (13.1 - 20.5) RETIC: 6.8 K/µL (10.0 - 110.0) NEU: 12.50 K/µL (2.95 - 11.64) LYM: 0.66 K/µL (1.05 - 5.10) BASO: 0.17 K/µL (0.00 - 0.10) CHEM CREA: > 13.6 mg/dL (0.5 - 1.8) BUN: > 130 mg/dL (7 - 27) PHOS: > 16.1 mg/dL (2.5 - 6.8) GLOB: 4.6 g/dL (2.5 - 4.5) ALKP: 263 U/L (23 - 212) CHOL: 367 mg/dL (110 - 320) AMYL: 2097 U/L (500 - 1500) Cl: 102 mmol/L (109 - 122) UA - USG 1.015; no bacteria, crystals or WBC seen

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally to mildly distended. The wall is diffusely thickened (up to 0.32 cm) with an irregular mucosal surface. Luminal contents are mostly anechoic. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The left kidney is normal in size (4.82 cm in length) with a slightly irregular shape. The cortex is hyperechoic and thickened with mild heterogeneity. One-to-two cortical cysts are seen. There is poor corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths or hydroureter.

The right kidney is normal in size (5.41 cm in length) with a slightly irregular shape. The cortex is hyperechoic and thickened with mild heterogeneity. One-to-two cortical cysts are seen. There is poor corticomedullary distinction. There is no evidence of pyelectasia, nephroliths or hydroureter.

Adrenal Glands

The left adrenal gland is enlarged at the cranial pole (1.16 cm) and normal in size at the caudal pole (0.56 cm) (2.41 cm in length) with an irregular shape. A 1.67 x 1.02 cm lobulated, hyperechoic to slightly heterogenous nodule is observed at the cranial aspect. Glandular echogenicity and detail at the caudal aspect are normal. Surrounding vasculature appears normal.

The right adrenal gland is in normal size (0.71 cm at cranial pole) (0.56 cm at caudal pole) (2.20 cm in length) 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.

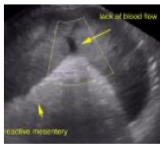
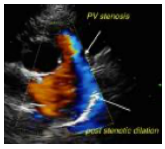
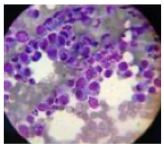
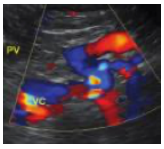
Spleen

The spleen is normal in size (1.16 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 curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and exhibits subtle heterogeneity. A 0.76 cm hyperechoic nodule is observed deep on the left side. Hepatic vasculature and intrahepatic 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 small amount of

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echogenic debris 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 is subjectively thickened with a prominent muscularis layer (up to 0.54 cm). The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal to borderline thickened (up to 0.44 cm). There is slight disruption in the normal 1:3 muscularis: mucosal ratio in some segments. Discreet masses are not identified. The ileocecocolic junction is normal. The wall of the descending colon is thickened (up to 0.84 cm) with retention of the normal layering pattern. 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

There is no obvious evidence of free fluid. A 1.02 x 0.57 cm medial iliac lymph node is visualized.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral nonspecific chronic nephropathy. Considerations include chronic interstitial nephrosis/nephritis, prior insult (i.e., infection, toxin), other.

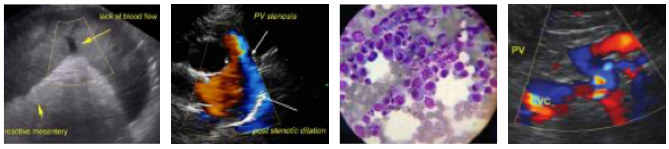
Secondary Findings

- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely. The hyperechoic hepatic nodule has a propensity for the benign (i.e., regenerative nodule, myelolipoma) with a lower possibility of an emerging tumor.
- The left adrenal nodule could be consistent with an adenoma, adenocarcinoma, pheochromocytoma, inflammatory focus, other.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The diffuse bowel changes are most consistent with an inflammatory process with some potential for emerging lymphoma.
- The urinary bladder wall changes could be consistent with cystitis or may be artifactual due to lack of full repletion. Correlation with the patient's clinical history and urinalysis findings is recommended.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the severe azotemia, consider the following:

  1. Urine culture and sensitivity
  2. UPC (if proteinuria is present in the absence of infection)



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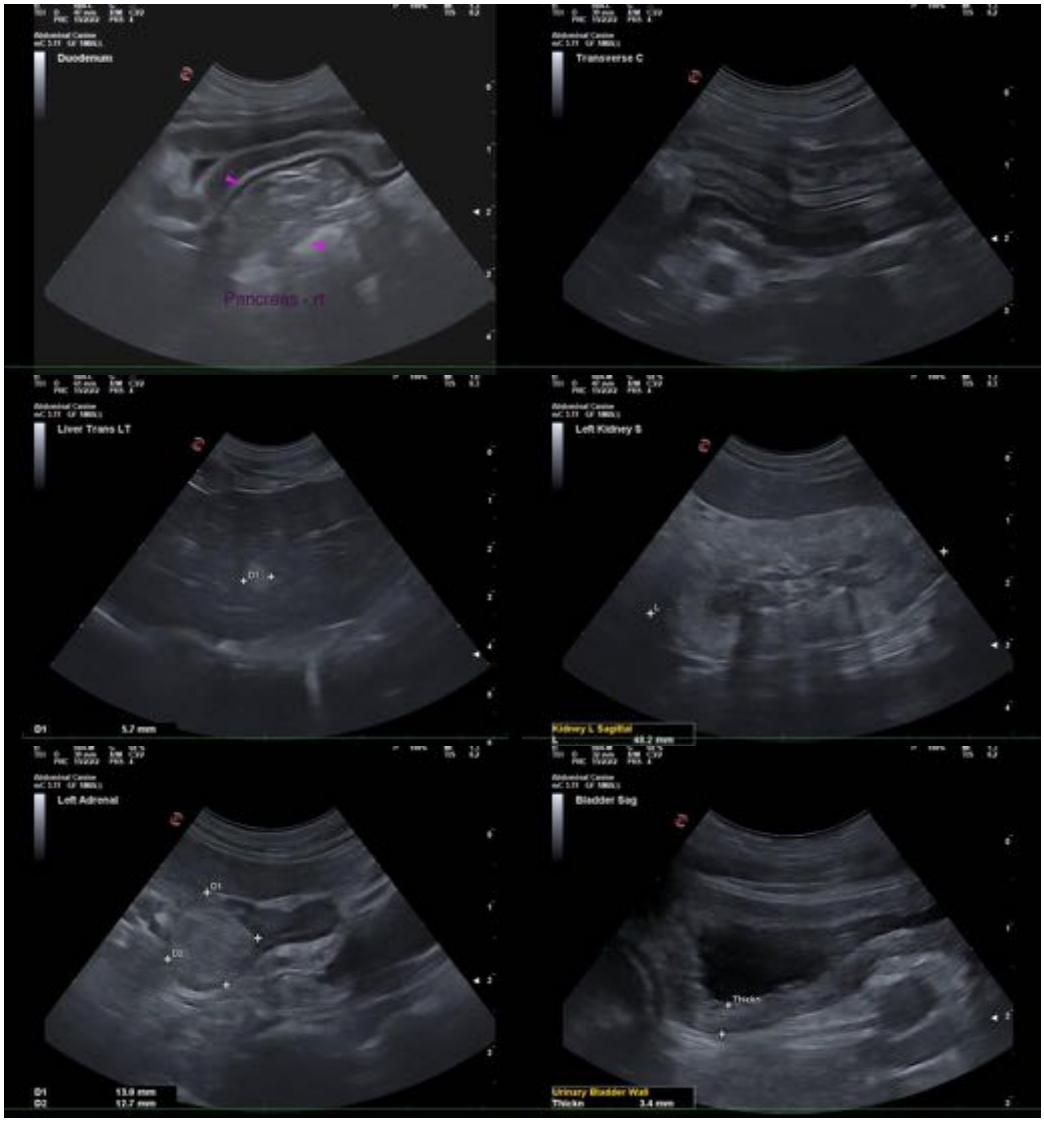
3. Baseline blood pressure measurement
4. Leptospirosis testing can be considered. However, a chronic nephropathy is suspected. Therefore, this differential is considered less likely.
5. IV fluid diuresis and supportive care with serial monitoring of the patient's renal values to assess for progression/improvement.
6. If/when the patient starts eating again, consider transitioning to a prescription renal diet.



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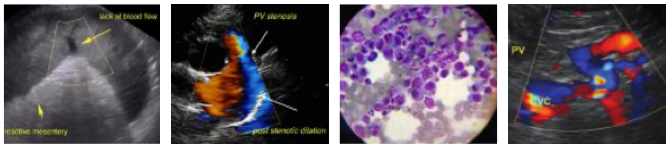

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
info@SonoPath.com