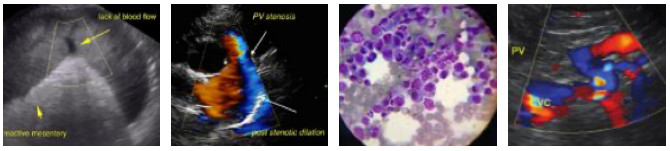
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Alfred Collins

SPECIES
Feline

BREED
Domestic shorthair

SEX
Male, neutered

AGE
15 Yrs.

WEIGHT
9.4 lbs.

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

IMAGING PERFORMED BY
Sarah Pender, CVT

HOSPITAL NAME
SVS Imaging QC

REFERRING VET
Dr. Springman

INVOICE
13732

DATE
7/18/22

PRESENTING CLINICAL SIGNS

History: Reoccurring blood in urine, straining On transdermal Methimazole
Abnormal PE/Chem/CBC/UA Results: June 27th findings (radiology Synergy consult) Bilateral chronic renal degeneration, mild generalized cardiomegaly most likely represents Thyro toxic cardiomyopathy

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with anechoic urine. The wall is diffusely thickened (up to 1.0 cm), particularly along the ventral wall. This segment of wall is also irregular and vascular. The dorsal wall is borderline thickened (up to 0.18 cm) with a smooth mucosal surface. No cystic calculi are observed. The region of the trigone appears normal. The proximal urethra is normal to borderline thickened (up to 0.29 cm).

The left kidney is normal size (3.73 cm in length) with an irregular shape. The cortex is variably thickened and there is poor corticomedullary distinction with loss of the normal internal renal architecture. Pinpoint hyperechoic foci are visualized. Trace pyelectasia is present. At least one cortical infract is suspected at the lateral aspect. There is no evidence of hydroureter. Renal vasculature is normal.

The right kidney is upper limits of normal size (4.31 cm in length) with a severely irregular shape. The cortex is variably thickened and there is poor corticomedullary distinction and loss of the normal internal renal architecture. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. There are suspected cortical infarcts. There is no evidence of hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size (0.34 cm cranial; 0.40 cm caudal, 1.17 cm length) with a normal shape and smooth peripheral contours. A few hyperechoic foci are observed throughout the parenchyma. Glandular detail is otherwise normal. The phrenicoabdominal vein and surrounding vasculature are normal.

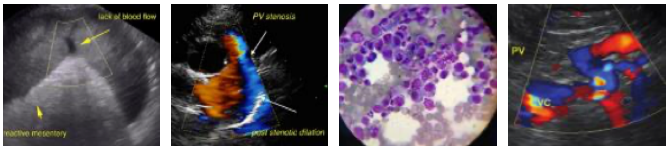
The right adrenal gland is normal in size (0.41 cm cranial; 0.34 cm caudal; 1.11 cm length) with a normal shape and smooth peripheral contours. A few hyperechoic foci are observed throughout the parenchyma. Glandular detail is otherwise normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (0.62 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. At least 3-4 small hyperechoic nodules are observed. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein: caudal vena cava ratio is approximately 1:1.



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The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal.

Gastrointestinal

The gastric lumen is minimally fluid distended. The gastric wall is normal in thickness with a normal layering pattern. 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 ileocecocolic junction and colonic wall are normal. No obstructive disease is noted.

Pancreas

The pancreas is 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 borderline dilated (0.24 cm in diameter). There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

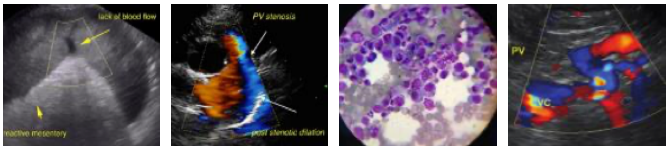
- The urinary bladder wall changes are most concerning for infiltrative neoplasia (i.e., transitional cell carcinoma). However, focal cystitis cannot be completely excluded. There is questionable extension of the urinary bladder wall pathology into the proximal urethra.
- The bilateral renal changes could be consistent with chronic severe, age-related degeneration. However, infiltrative neoplasia cannot be completely excluded due to the irregular shape and thickened cortices, particularly in the right kidney.

Secondary Findings:

- The hyperechoic foci observed in the adrenal parenchyma are likely a benign incidental age-related finding.
- Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, normal variant or other hepatopathy.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The hyperechoic splenic nodules trend toward the benign (i.e., myelolipomas) with a low possibility of emerging neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- A urine BRAF test is recommended to further evaluate for lower urinary tract neoplasia. If the test is negative, however, cancer cannot be completely excluded and further testing (i.e., bladder wall biopsy) may be necessary to get a definitive diagnosis. A urine culture and



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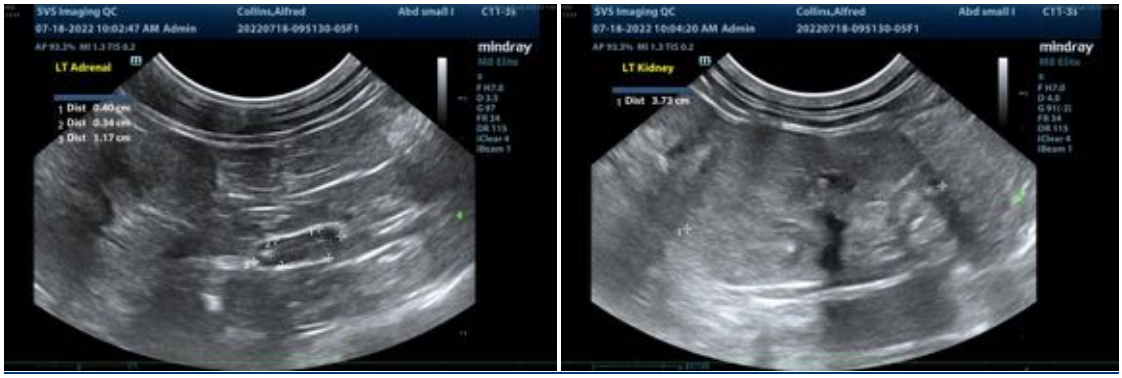
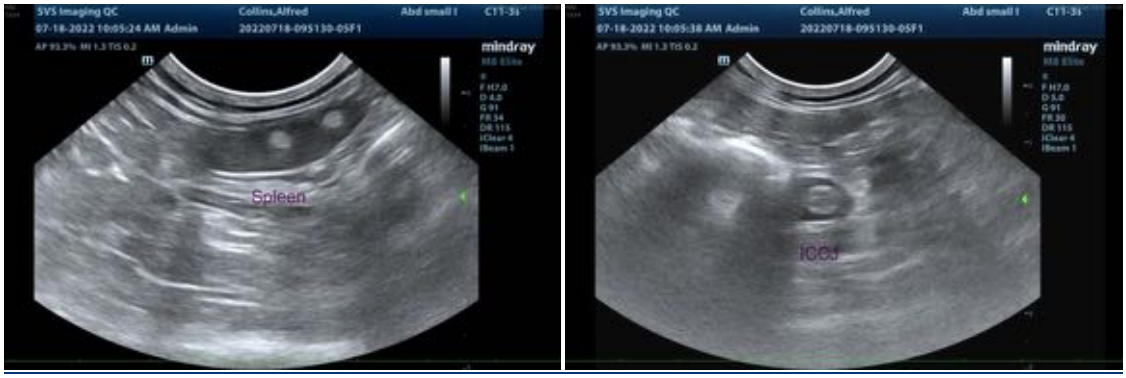
sensitivity should also be considered. However, a free catch sample is recommended for submission given that with cystocentesis, there is a risk of seeding the abdomen with neoplastic cells.

- Thoracic radiographs are also recommended to assess for pulmonary metastatic disease.
- Consider fine needle aspirates of the kidneys, particularly the right kidney, to further evaluate for infiltrative neoplasia.
- Baseline labwork, including a CBC, chemistry panel, urinalysis and T4, is recommended, if not already performed.





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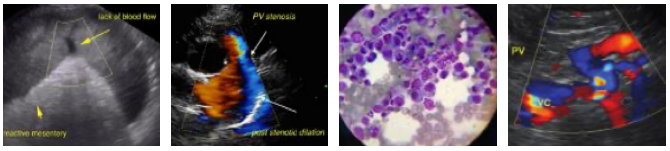

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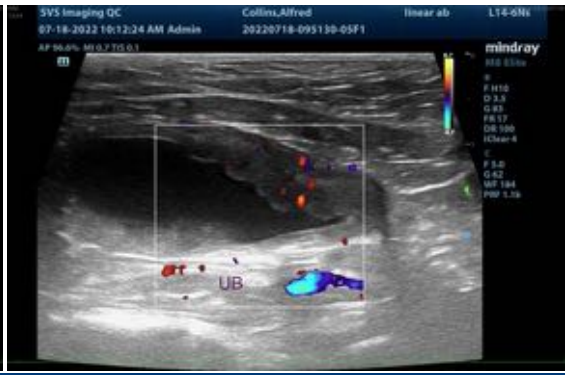

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

Andrea.nicastro@sonopath.com