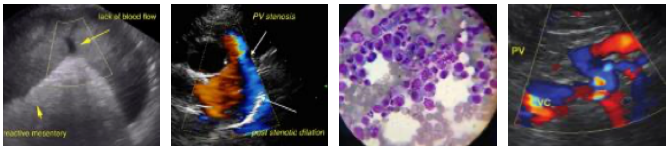
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Charlie Mathews

SPECIES
Canine

BREED
Rat terrier

SEX
Female, spayed

AGE
15 Yrs.

WEIGHT
10.5 lbs.

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

IMAGING PERFORMED BY
Dr. Deml

HOSPITAL NAME
Craig Road AH

REFERRING VET
Dr. Deml

INVOICE
14859

DATE
4/26/23

PRESENTING CLINICAL SIGNS

History: 15 yo FS Rat terrier. History of CKD (On Naraquin) and cardiomegaly (managed with Vetmedin currently). Presented for neurologic episode of stretching neck out and falling laterally. P did not lose consciousness. BW revealed a hyperkalemia and azotemia (see BW results).
Abnormal PE/Chem/CBC/UA Results: Elevated BUN: 39 (7-25) Elevated Creatinine: 2.1 Hyperkalemia: 6.6 L sided cardiomegaly on thoracic radiographs.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone is normal.

The left kidney is normal size (3.06 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Mild pyelectasia is present (0.25 cm in the longitudinal plane). There is no evidence of infarcts or hydroureter. Hyperechoic shadowing diverticular foci are visualized. Renal vasculature is normal.

The right kidney is normal in size (3.20 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. The cortex is isoechoic relative to the spleen. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.32 cm at cranial pole) (0.48 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 upper limits of normal size (0.84 cm at cranial pole) (0.54 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.

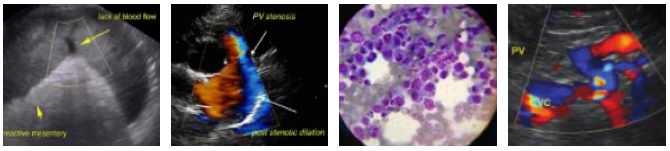
Spleen

The spleen is normal in size (0.75 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 isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is normal in thickness. A small polypoid like lesion is arising from the luminal surface. A scant amount of echogenic debris is present. The cystic and common bile ducts are normal/not seen.

Gastrointestinal



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

PATIENT
Charlie Mathews

SPECIES
Canine

BREED
Rat terrier

SEX
Female, spayed

AGE
15 Yrs.

WEIGHT
10.5 lbs.

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

IMAGING PERFORMED BY
Dr. Deml

HOSPITAL NAME
Craig Road AH

REFERRING VET
Dr. Deml

INVOICE
14859

DATE
4/26/23

The gastric lumen is minimally fluid distended. The gastric wall in the region of the fundus is normal to mildly thickened (up to 0.72 cm) with retention of the 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 ileocecocolic junction and colonic wall are normal. No obstructive disease is noted.

Pancreas

The base and limbs of the pancreas are 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 few prominent mesenteric lymph nodes are visualized, the largest measuring 1.00 cm in length. The nodes are normal in shape and echogenicity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

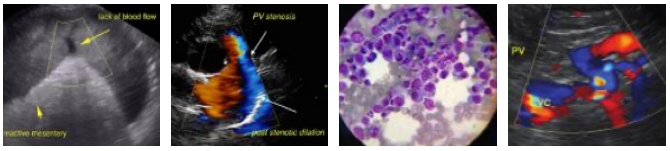
- Bilateral, non-specific chronic renal changes with dystrophic mineralization and mild pyelectasia.

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. Correlation with the patient's liver values is recommended.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The gastric wall thickening may be a normal variant for this patient or may represent an inflammatory process, hypertrophy or less likely, emerging neoplasia.
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the azotemia, consider the following:
  1. Resting cortisol level to screen for hypoadrenocorticism
  2. Urinalysis
  3. Urine culture and sensitivity
  4. UPC (if proteinuria is present in the absence of infection)



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

PATIENT

Charlie Mathews

SPECIES

Canine

BREED

Rat terrier

SEX

Female, spayed

AGE

15 Yrs.

WEIGHT

10.5 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Deml

HOSPITAL NAME

Craig Road AH

REFERRING VET

Dr. Deml

INVOICE

14859

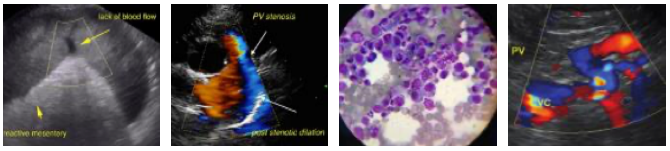
DATE

4/26/23

5. Baseline blood pressure measurement
6. Transition to a prescription renal diet unless the patient is already receiving one.

- Regarding the neurologic episode, consider the following:
  1. Echocardiogram to assess cardiac function, particularly in light of the patient's cardiomegaly seen radiographically.
  2. ECG to assess for arrhythmias.
  3. Consultation with a board-certified neurologist if a cardiac cause is not identified

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Charlie Mathews

SPECIES

Canine

BREED

Rat terrier

SEX

Female, spayed

AGE

15 Yrs.

WEIGHT

10.5 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Deml

HOSPITAL NAME

Craig Road AH

REFERRING VET

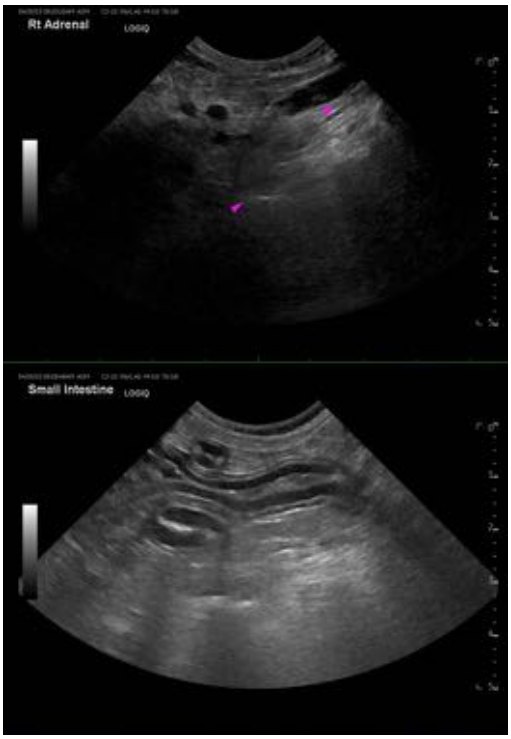
Dr. Deml

INVOICE

14859

DATE

4/26/23



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