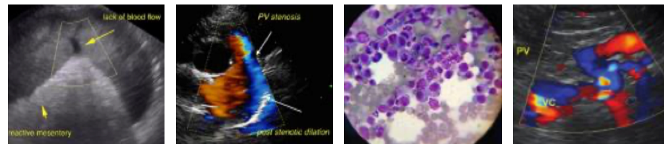


SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Sassy Wheeler

SPECIES

Canine

BREED

Shih Tzu mix

SEX

Female, spayed

AGE

13 Yrs.

WEIGHT

22.2 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Acosta

HOSPITAL NAME

Companion AC

REFERRING VET

Dr. Acosta

INVOICE

14382

DATE
12/20/22

PRESENTING CLINICAL SIGNS

History: 3-year history of hypercalcemia with presumptive diagnosis of primary hyperparathyroidism. Early CHF managed with lasix and vetmedin. 3–4-month history of lethargy and weight loss (5.5# since 7/2022) E/D okay, No V/D.
Abnormal PE/Chem/CBC/UA Results: Increased hepatic values since 9/2020 that has become more severe. TP-8.0 Glob-4.1 AST-79 ALT-597 ALP-3951 GGT-33 BUN-56 BUN/Creat ratio-35 Ca-13.5 Chol-479 Precision PSL-282 Platelet-497

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. A scant amount of suspended echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is normal size (4.55 cm in length) with a normal shape and smooth peripheral contours. The cortex is thickened and hyperechoic with pinpoint hyperechoic to mineralized foci. There is moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

The right kidney is normal size (5.27 cm in length) with a normal shape and smooth peripheral contours. The cortex is slightly thickened and hyperechoic with pinpoint hyperechoic to mineralized foci. There is moderate loss of corticomedullary distinction. A few cortical cysts are seen. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.46 cm at cranial pole) (0.58 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.

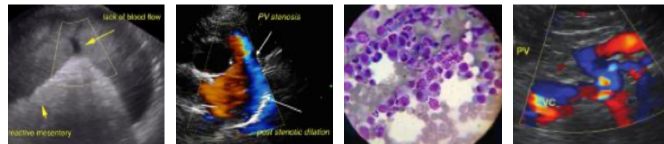
The right adrenal gland is enlarged (3.35 x 2.40 cm) with a mass effect. The gland is irregular and heterogeneous in appearance with loss of glandular detail. There is no obvious evidence of vascular invasion.

Spleen

The spleen is normal in size (1.05 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A 1.06 cm ill-defined cystic lesion is observed near the medial aspect. Pinpoint hyperechoic to mineralized foci are observed throughout the organ. Splenic vasculature is normal.

Liver

The liver is subjectively prominent to enlarged with swollen peripheral contours. A rounding/swelling of a centrally located lobe is observed. The parenchyma is isoechoic relative to the spleen and homogeneous in appearance. There was an increase in portal markings. Vascular is of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and



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

PATIENT

Sassy Wheeler

SPECIES

Canine

BREED

Shih Tzu mix

SEX

Female, spayed

AGE

13 Yrs.

WEIGHT

22.2 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Acosta

HOSPITAL NAME

Companion AC

REFERRING VET

Dr. Acosta

INVOICE

14382

DATE
12/20/22

smooth. A moderate amount of mostly gravity-dependent 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 left limb of the pancreas is prominent to enlarged with slightly irregular peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat and is subtly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated. Surrounding mesentery is hyperechoic.

Free Abdomen

Trace free fluid is observed in the left cranial quadrant. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

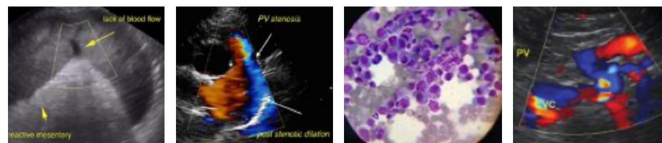
- The diffuse hepatic parenchymal changes are non-specific and are most consistent with an inflammatory hepatopathy (i.e., bacterial cholangiohepatitis, chronic hepatitis). However, infiltrative neoplasia or other hepatopathies (i.e., vacuolar) cannot be completely excluded. The swollen liver lobe may represent excessive vacuolar hepatopathy or an emerging tumor.
- Gallbladder debris, non-mucocele.
- Right adrenal mass. Differentials include adenocarcinoma, adenoma, pheochromocytoma, other.
- The pancreatic changes in the left limb are most consistent with chronic active pancreatitis with age-related remodeling +/- fibrosis.

Secondary Findings:

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis with dystrophic mineralization.
- The pinpoint mineralized foci within the spleen are likely secondary to an endocrinopathy. This is a benign incidental finding.
- The cystic splenic lesion may represent a benign cyst or an emerging vascular tumor. Sonographic monitoring is recommended.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the right adrenal mass, consider the following:



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

PATIENT
Sassy Wheeler

SPECIES
Canine

BREED
Shih Tzu mix

SEX
Female, spayed

AGE
13 Yrs.

WEIGHT
22.2 lbs.

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

IMAGING PERFORMED BY
Dr. Acosta

HOSPITAL NAME
Companion AC

REFERRING VET
Dr. Acosta

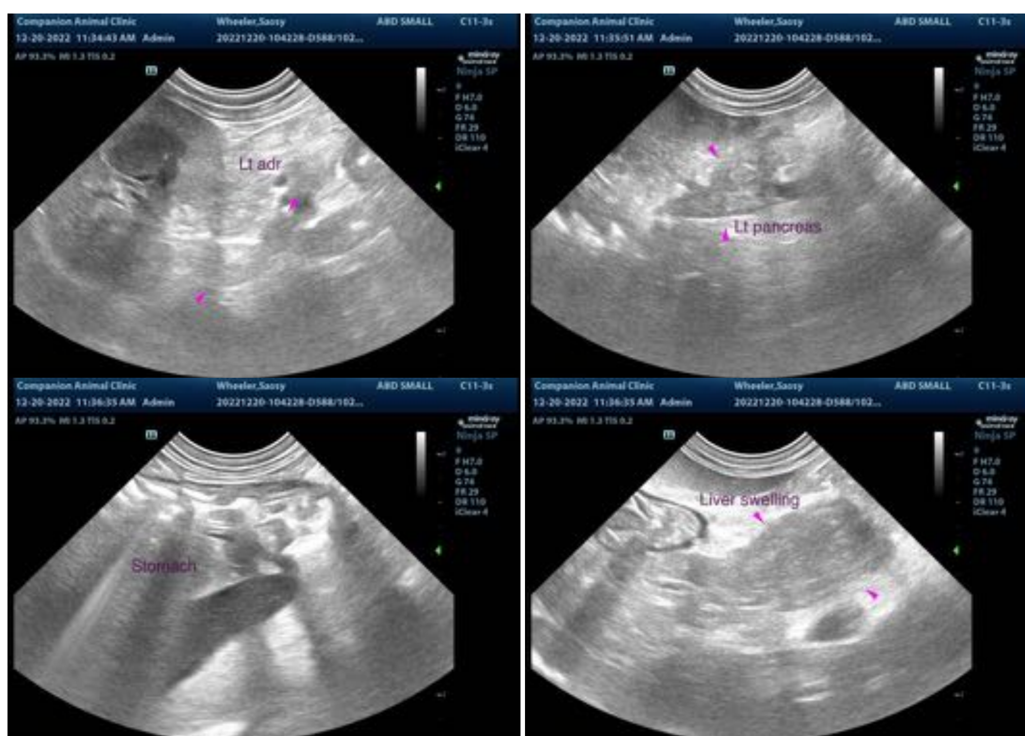
INVOICE
14382

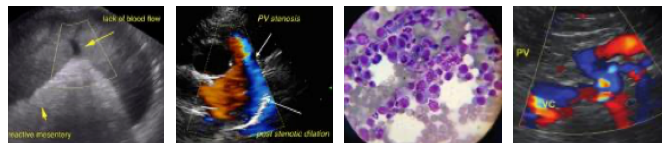
DATE
12/20/22

1. Baseline blood pressure measurement
2. Thoracic radiographs to evaluate for pulmonary metastatic disease
3. +/- further testing (i.e., low-dose dexamethasone suppression test, urine/blood catecholamine levels) to evaluate for a functional tumor

- Regarding the hepatopathy, consider the following:

1. Pre and post prandial serum bile acids
2. Leptospirosis testing (i.e., blood and urine PCR, serology), particularly if the clinical suspicion for disease is high.
3. Hepatic tissue sampling (i.e., fine needle aspirate or biopsy- laparoscopic or surgical). If biopsies are pursued, aerobic and anaerobic bile cultures should be obtained and copper quantitation should be performed.
4. While awaiting test results, consider empirical treatment for bacterial cholangiohepatitis (i.e., broad spectrum antibiotics, hepatic antioxidants +/- Ursodiol).





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

PATIENT

Sassy Wheeler

SPECIES

Canine

BREED

Shih Tzu mix

SEX

Female, spayed

AGE

13 Yrs.

WEIGHT

22.2 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Acosta

HOSPITAL NAME

Companion AC

REFERRING VET

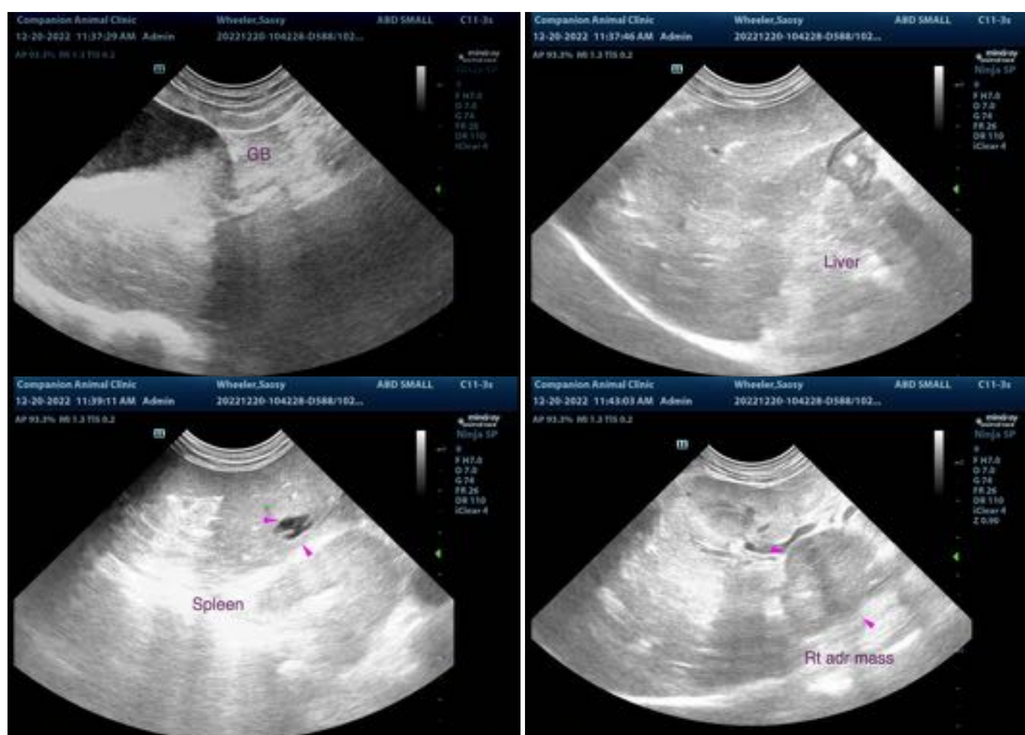
Dr. Acosta

INVOICE

14382

DATE

12/20/22



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