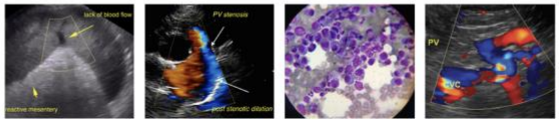
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



Charleston Mobile Veterinary Services
IMAGING PERFORMED BY
CharlestonMobile.Net 800.403.5408

PATIENT

Wrigley Fanning

SPECIES

Canine

BREED

GSD Mix

SEX

Spayed Female

AGE

12/06/2009

WEIGHT

41.6 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Brighton AH

REFERRING VET

Dr. Elizabeth Wetzel

INVOICE

10410

DATE

2/18/22

PRESENTING CLINICAL SIGNS

Clinical Exam Findings:

ABNORMAL Labwork Values: Elevated ALT/Alkp values; has been on Denamarin. ALP in the 460s. ALTERNATIVELY, in 270s.
Fine Needle Aspirates: Client did not approve sedation nor FNA

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal in size (4.97 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (6.56 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.62 cm at cranial pole) (0.69 cm at caudal pole) (2.39 cm in length); 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 borderline enlarged (1.29 cm at cranial pole) (0.90 cm at caudal pole) (0.89 cm in length); 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

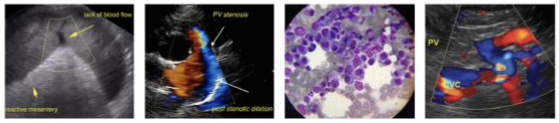
The spleen is normal in size (2.03 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen with minor changes consistent with age-related remodeling. No 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 thin and smooth. Luminal contents are mostly anechoic. The cystic and common bile ducts are normal.

Gastrointestinal



PATIENT

Wrigley Fanning

SPECIES

Canine

BREED

GSD Mix

SEX

Spayed Female

AGE

12/06/2009

WEIGHT

41.6 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Brighton AH

REFERRING VET

Dr. Elizabeth Wetzel

INVOICE

10410

DATE

2/18/22

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 small intestinal lumen is not dilated. The small intestinal wall thickness is normal (xxx cm) with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

Other

A brief echocardiogram reveals no evidence of pericardial effusion.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

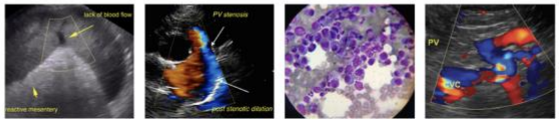
- Non-specific diffuse hepatopathy. Differentials include inflammatory disease (i.e., chronic active hepatitis, bacterial cholangiohepatitis, hepatotoxicosis (i.e., copper), infiltrative neoplasia (unlikely), Leptospirosis, other hepatopathy +/- concurrent age-relate change (i.e., vacuolar hepatopathy, regenerative nodular hyperplasia).

Secondary Findings

- Minor age-relate renal changes with dystrophic mineralization
- Borderline right adrenomegaly

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider pre-and post-prandial serum bile acids to assess hepatic function.
- Letospirosis testing can also be considered. However, given the chronicity of liver enzyme elevations, this differential is considered less likely.
- Ultimately, hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) may be necessary to get a definitive diagnosis. Surgical biopsies would be ideal, as cytologic evaluation does not always represent global organ pathology. If surgical biopsies are pursued, aerobic and anaerobic bile cultures as well as acquisition of additional hepatic tissue samples for potential copper quantitation are recommended. Given the patient's age, three-view thoracic radiographs should be performed prior to any anesthetic event.
- If a more conservative approach is to be pursued, consider empirical treatment for bacterial cholangiohepatitis with broad-spectrum antibiotics (i.e., amoxycillin-clavulanic acid, metronidazole and hepatic antioxidants). If no improvement in the liver values is seen within 5-



PATIENT

Wrigley Fanning

SPECIES

Canine

BREED

GSD Mix

SEX

Spayed Female

AGE

12/06/2009

WEIGHT

41.6 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Brighton AH

REFERRING VET

Dr. Elizabeth Wetzel

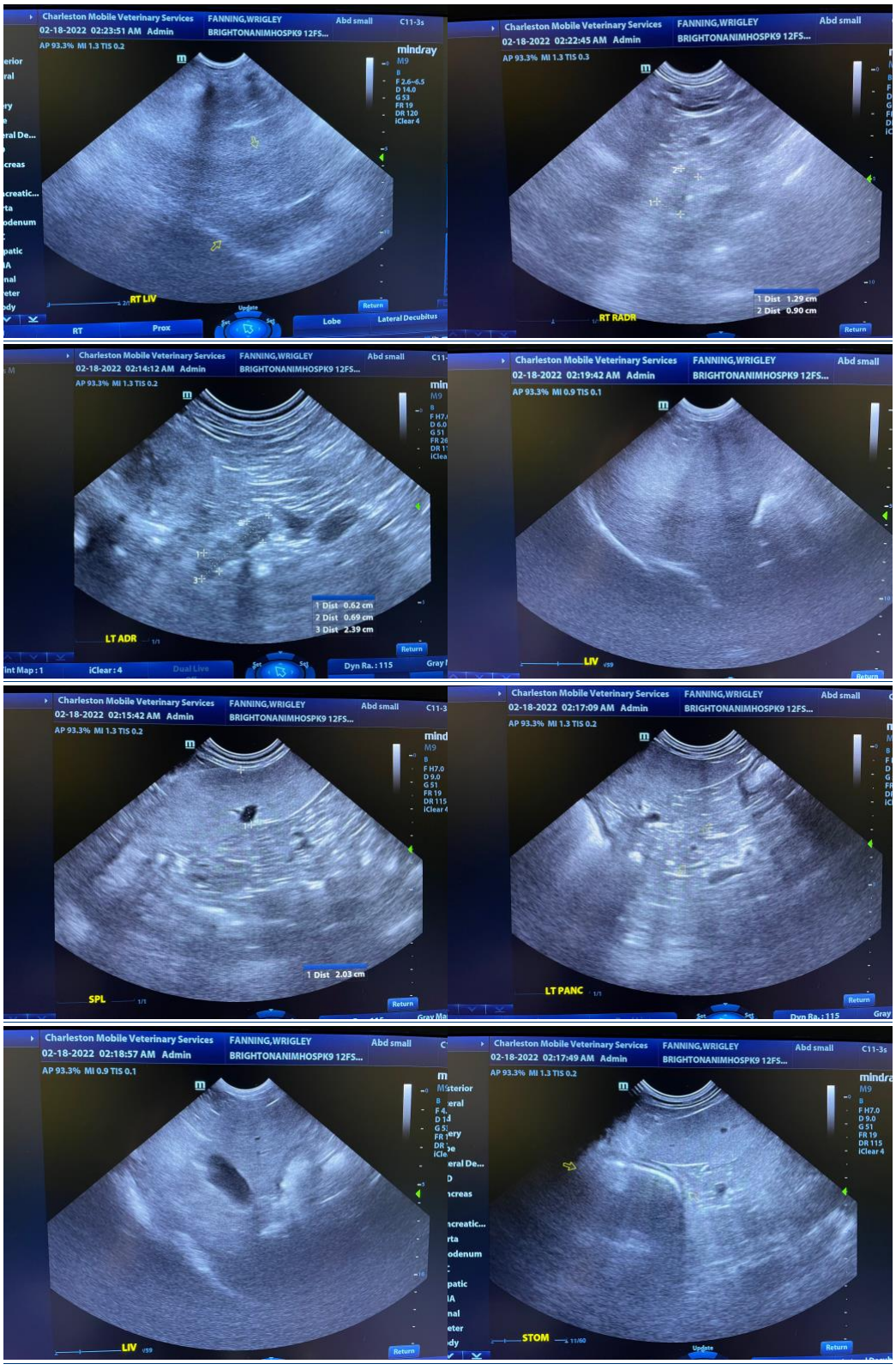
INVOICE

10410

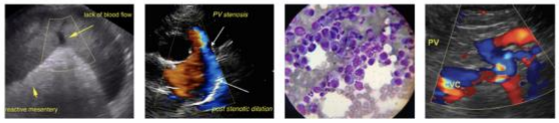
DATE

2/18/22

7 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling revisited.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



Charleston Mobile Veterinary Services
IMAGING PERFORMED BY
CharlestonMobile.Net 800.403.5408

PATIENT

Wrigley Fanning

SPECIES

Canine

BREED

GSD Mix

SEX

Spayed Female

AGE

12/06/2009

WEIGHT

41.6 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Brighton AH

REFERRING VET

Dr. Elizabeth Wetzel

INVOICE

10410

DATE

2/18/22

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, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com