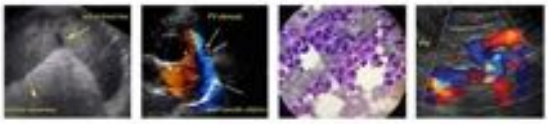
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Cooper Morgan

SPECIES

Canine

BREED

Welsh terrier

SEX

Neutered Male

AGE

12 Years

WEIGHT

31.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Valley VC

REFERRING VET

Dr. Plateman

INVOICE

13225

DATE

4/18/22

PRESENTING CLINICAL SIGNS

History: Breed: Welsh Terrier Chief Concern/Provisional Diagnosis: P has elevated liver enzymes with episodes of diarrhea/ gastric indiscretion. Diagnosis: No diagnosis at this time. DDX: pancreatitis, enlarged liver, gastroenteritis History/Physical Findings: Dental exam shows that P has grade 3/4 periodontal disease. Abdominal palpation shows that P is tense; however it may be normal for P. Discussed that there are no medications for incontinence in males. Performed TNT. Recommend bland diet of chicken and rice and can use chicken broth. Discussed the use of a probiotic; O asked about kefer and agreed that kefer would be a great to use. Discussed that P may be having a bout of pancreatitis. Summary of Laboratory Abnormalities: BW done on 4/8/22 showed elevated ALP at 4461 and an elevated ALT at 1036, BUN: CREAT ratio is elevated at 28, neutrophils elevated 85. All other values WNL. Radiographic Abnormalities: No recent radiographs taken. Current Therapy and Medications: Denamarin 90 mg: 2 tab PO SID, liquitinic 2.5 ml PO BID

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. A small amount of aggregated mineralized debris +/- tiny calculi is observed within the lumen. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.86 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (5.61 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate 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 size (6.29 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

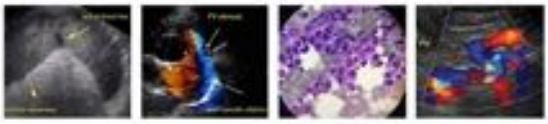
Adrenal Glands

The left adrenal gland is enlarged (1.96 cm at cranial pole) (1.03 cm at caudal pole) (3.54 cm in length) with an irregular shape. A 2.20 x 1.85 cm heterogeneous cavitated nodule/mass is observed at the cranial to mid aspect. The glandular echogenicity and detail at the caudal aspect are relatively normal. There is no obvious evidence of vascular invasion.

The right adrenal gland is mildly enlarged (0.93 cm at cranial pole) (0.90 cm at caudal pole) with a relatively normal shape. The parenchyma is slightly heterogeneous in appearance with some loss of glandular detail. Surrounding vasculature appears normal.

Spleen

The spleen is normal in size (xxx cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. Several small irregular hyperechoic nodules are observed throughout the organ. Splenic vasculature is normal.



PATIENT

Cooper Morgan

SPECIES

Canine

BREED

Welsh terrier

SEX

Neutered Male

AGE

12 Years

WEIGHT

31.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Valley VC

REFERRING VET

Dr. Plateman

INVOICE

13225

DATE

4/18/22

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 gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated echogenic partially dependent to suspended sludge in a partially stellate pattern is observed within the lumen. The common bile duct is mildly dilated (0.59 cm) at the level of the duodenal papilla and contains echogenic material at this level.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. 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 segmentally dilated with chyme. 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 right limb is prominent to enlarged with slightly irregular peripheral contours. The parenchyma is heterogeneous in appearance. The pancreatic duct is visible but not overtly dilated (0.24 cm in diameter). Surrounding mesentery is slightly hyperechoic.

Free Abdomen

There is no evidence of free fluid. 1-2 prominent epigastric lymph nodes are visualized, the largest measuring 1.43 cm in length.

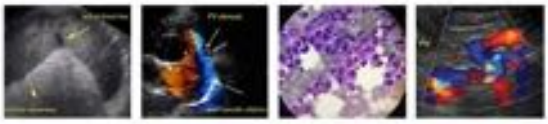
ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The gallbladder changes are suggestive of a developing mucocele. The echogenic material within the distal common bile duct may represent debris or potential mass effect.
- The pancreatic changes are most consistent with chronic active pancreatitis with age-related remodeling +/- fibrosis.
- The hepatic parenchymal changes are non-specific and could be secondary to an inflammatory hepatopathy (i.e., bacterial cholangiohepatitis, chronic active hepatitis), Leptospirosis, hepatotoxicosis (i.e., copper), other hepatopathy +/- concurrent age-related change (i.e., vacuolar hepatopathy, regenerative nodular hyperplasia).
- Suspected left adrenal mass at the cranial pole. Neoplasia (i.e., adenoma, adenocarcinoma, hemangiosarcoma, pheochromocytoma) is suspected. However, a benign process cannot be completely excluded. Mild right adrenomegaly.

Secondary Findings:

- The hyperechoic splenic nodules are most consistent with myelolipomas with a low possibility of emerging neoplasia.



PATIENT

Cooper Morgan

SPECIES

Canine

BREED

Welsh terrier

SEX

Neutered Male

AGE

12 Years

WEIGHT

31.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Valley VC

REFERRING VET

Dr. Plateman

INVOICE

13225

DATE

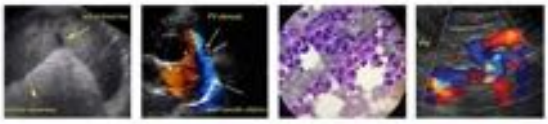
4/18/22

- Urinary bladder sand +/- cystic calculi.
- Bilateral, age-related renal changes with dystrophic mineralization.
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the severe liver enzyme elevations, hepatic tissue sampling (i.e., fine needle aspirate or biopsy) is recommended to get a definitive diagnosis. Surgical biopsies are ideal in that they are more likely to provide a definitive diagnosis. Consider aerobic and anaerobic bile cultures +/- cholecystectomy at the time of surgery as well as assessment of bile duct patency and acquisition of additional hepatic tissues samples for potential copper quantitation. Three-view thoracic radiographs should be performed prior to anesthesia to assess cardiopulmonary status, particularly in light of the left adrenal mass.
- To further evaluate for a functional left adrenal tumor, consider low-dose Dexamethasone suppression test and urine/blood catecholamine levels. An abdominal CT scan would be useful in further assessing for vascular invasion. A left adrenalectomy can be considered if surgery for the liver is pursued. However, this will significantly increase the risk of perioperative complications.
- Treatment recommendations at this time include empirical therapy for bacterial cholangiohepatitis (i.e., broad spectrum antibiotics, Denamarin, supportive care) along with initiation of Ursodiol and pain medication as needed.

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



IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Cooper Morgan

SPECIES

Canine

BREED

Welsh terrier

SEX

Neutered Male

AGE

12 Years

WEIGHT

31.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Valley VC

REFERRING VET

Dr. Plateman

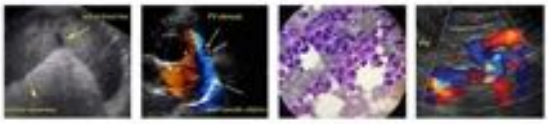
INVOICE

13225

DATE

4/18/22

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



IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Cooper Morgan

SPECIES

Canine

BREED

Welsh terrier

SEX

Neutered Male

AGE

12 Years

WEIGHT

31.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Valley VC

REFERRING VET

Dr. Plateman

INVOICE

13225

DATE

4/18/22

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 ACVIM (*Small Animal Internal Medicine*)

andrea.nicastro@sonopath.com