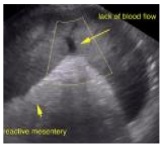
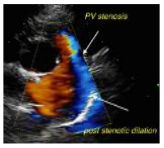
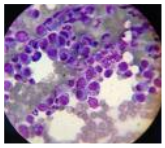
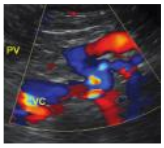
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Stewart Richardson

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Neutered Male

AGE

12 years

WEIGHT

11 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Judy Surdam, VMD

HOSPITAL NAME

Companion AH - Chichester

REFERRING VET

Judy Surdam, VMD

INVOICE

11029

DATE

6/7/22

PRESENTING CLINICAL SIGNS

History: Elevated liver enzymes and CK found incidentally
Abnormal PE/Chem/CBC/UA Results: Severe dental disease Dorsal alopecia and comedones Pendulous abdomen. ALT: 237. GGT 14. Globulin: 4.50. Platelets 473,000. USG 1.033 with 2+ proteinuria and inactive sediment. Normal T4. 4dx negative. Fecal negative.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to moderately distended with mostly anechoic urine. The wall is normal in thickness. The mucosal surface is irregular. At least one cystic calculus measuring 0.42 cm, is observed. The region of the trigone and the visible portion of the proximal urethra, visible to a depth of 2 cm, are normal.

What is thought to be the prostate is normal in size (0.25 cm in width) with a normal shape and homogenous parenchyma. The prostatic urethra is not overtly dilated.

The left kidney is normal size (4.26 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.04 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. At least one cortical cyst is visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.40 cm at cranial pole) (0.40 cm at caudal pole) (1.28 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 normal size (0.54 cm at cranial pole) (0.49 cm at caudal pole) (1.50 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 (1.09 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 prominent in size with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogenous in appearance. Several, ill-defined hyperechoic areas/nodules are observed throughout the organ, the largest measuring 2.70 in its longest dimension. Hepatic vasculature and intrahepatic 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 small to moderate amount of aggregated, echogenic, partially dependent debris/sludge 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 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.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Cystic calculus with urinary bladder wall changes suggestive of cystitis
- Nonspecific, diffuse hepatopathy. Differentials in this patient include inflammatory disease (i.e., chronic active pancreatitis, bacterial cholangiohepatitis), reactive hepatopathy, hepatotoxicosis (i.e., copper), other hepatopathy, +/- concurrent benign age-renal change (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy).
- Gall bladder debris/sludge, not consistent with a mucocele at this time.

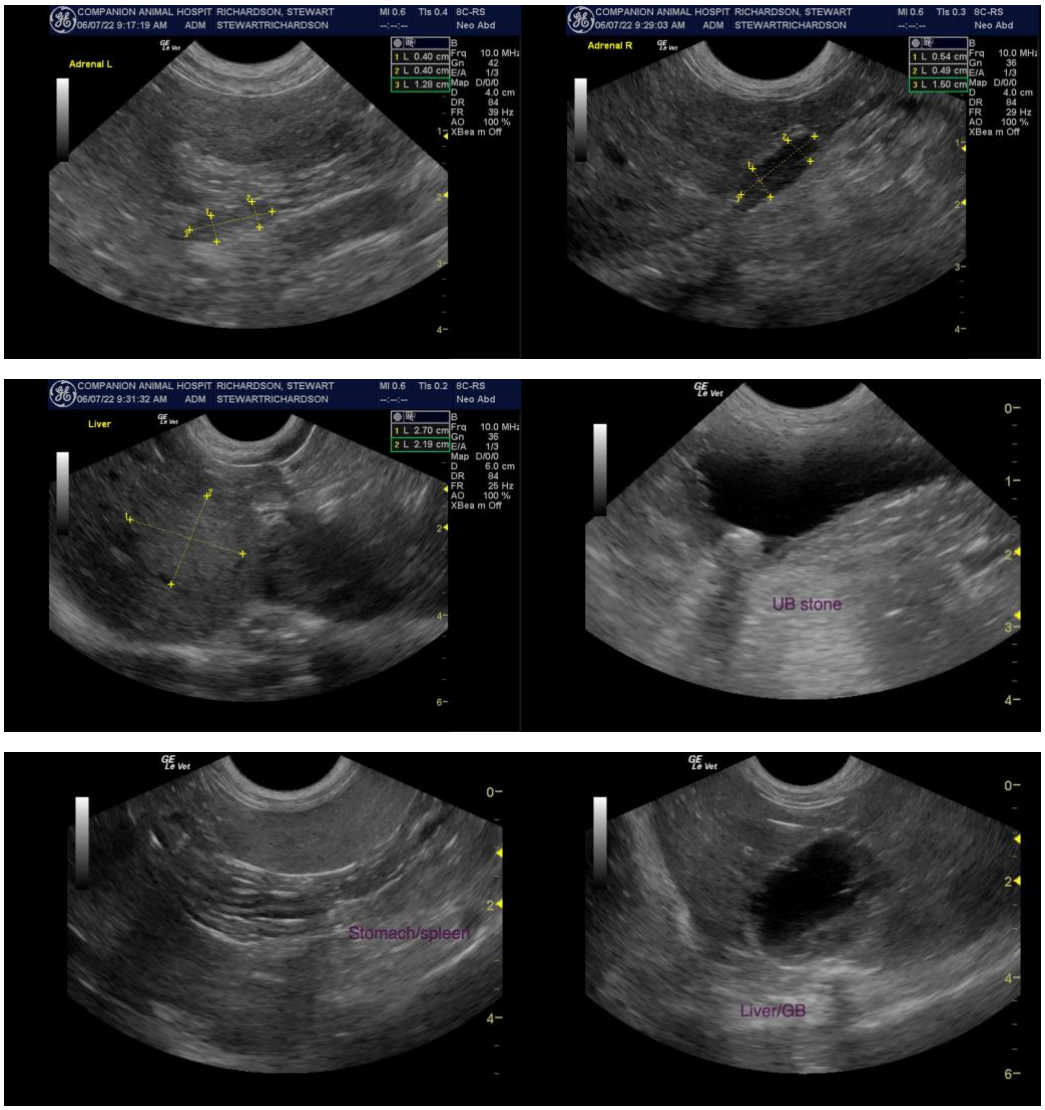
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

To further evaluate for underlying liver disease, consider hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy). Surgical biopsies are more likely to yield a definitive diagnosis. If pursued, aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation are recommended. Thoracic radiographs are recommended prior to any anesthetic event.

If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, +/-metronidazole, Denamarin). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.

A cystotomy with stone removal, analysis and culture is recommended. Alternatively, medical dissolution of the stones can be considered with a prescription renal diet and broad-spectrum antibiotic therapy. If there is no improvement in stone size after 4 weeks of therapy, a cystotomy should be reconsidered. If the stone size is reduced, continue therapy until complete dissolution has been achieved.

Given the proteinuria, a UPC should be considered after the bladder stone issue has resolved.



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.

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