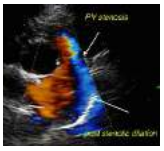
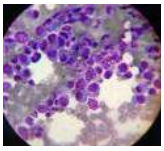
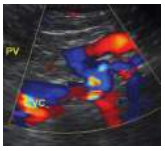





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Lilly Deering

SPECIES
Canine

BREED
Shih Tzu Mix

SEX
Female spayed

AGE
10 Years

WEIGHT
18 lbs.

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

IMAGING PERFORMED BY
Racehl Runnells, RVT

HOSPITAL NAME
SVS Imaging Kansas City

REFERRING VET
Dr .Lyle

INVOICE
11705kk

DATE
8/26/21

PRESENTING CLINICAL SIGNS

History: Brought in 8/22 - vomiting food 20-25 min after eating, but still has good appetite. Abd palpation WNL. T- 102.1. CRT <1 sec, mm pk and moist. Started treating for coccidia 8/22 with Drontal and Albon, started Amoxicillin, Denamarin, and Ursodiol 8/24.

Abnormal PE/Chem/CBC/UA Results: UA 6/4/21: SPGR 1.032, pH 5, trace protein, rest WNL. 8/22/21: UA: SPGR 1.025, pH 6, trace protein, rest WNL. CBC- EOS 1498 (0-1200), rest WNL. T4 WNL. Chem: AST 74 (15-66), ALT 899 (12-118), ALKP 2518 (5-131), GGT 42 (1-12), rest WNL. Rads - bladder or kidney stones, no obvious FB, rest NSF. Fecal - coccidia.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to moderately distended. The wall is of appropriate thickness for the level of repletion with a mostly smooth mucosal surface. Several small cystic calculi are observed within the bladder and urethral lumen as well as a small amount of suspended echogenic debris. The region of the trigone is normal.

The left kidney is mildly enlarged (5.77 cm in length) with an irregular shape. Numerous, varying-sized cortical cysts are visualized, some of which are septated and some of which cause capsular expansion. There is poor corticomedullary distinction. Several small nephroliths are present. There is trace pyelectasia. There is no evidence of hydroureter. Renal vasculature is normal.

The right kidney is mildly enlarged (6.22 cm in length) with an irregular shape. Numerous, varying-sized cortical cysts are visualized, some of which are septated and some of which cause capsular expansion. There is poor corticomedullary distinction. Several small nephroliths are present. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is borderline enlarged (0.40 cm at cranial pole) (0.61 cm at caudal pole) (1.82cm 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.

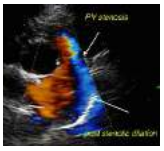
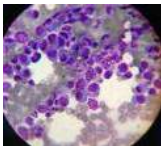
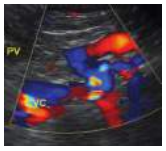
The right adrenal gland is normal size (0.85 cm at cranial pole) (0.45 cm at caudal pole) (2.00 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.07 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few small, hyperechoic nodules are observed within the parenchyma. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly mottled in appearance. No distinct focal lesions are observed. 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 normal in thickness. A

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moderate amount of aggregated, echogenic sludge, some of which is adherent and some of which is suspended, 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 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

Trace free fluid is present. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

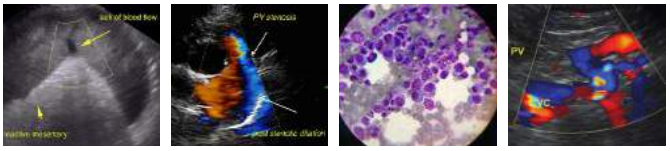
- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, Leptospirosis, chronic active hepatitis, copper-associated hepatotoxicity, infiltrative neoplasia (less likely)) cannot be excluded.
- Gall bladder sludge, non-mucocele.
- Polycystic kidney disease with non-obstructive nephroliths.
- The trace free fluid may be secondary to underlying hepatic and/or renal disease.
- Urinary bladder and urethral calculi with no obvious evidence of obstruction.

Secondary Findings:

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The hyperechoic lesions adjacent to the splenic vessels are most consistent with myelolipomas. Although a neoplastic process within the spleen cannot be excluded, it is considered unlikely in this patient.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. Leptospirosis testing including blood and urine PCR, serology is recommended, particularly if the disease is endemic in the patient's geographic region.
2. Cytologic evaluation of the liver should be considered in this patient if clotting status is appropriate. A fine needle aspirate using a 25-gauge needle is recommended. If cytologic evaluation is inconclusive, consider a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation.



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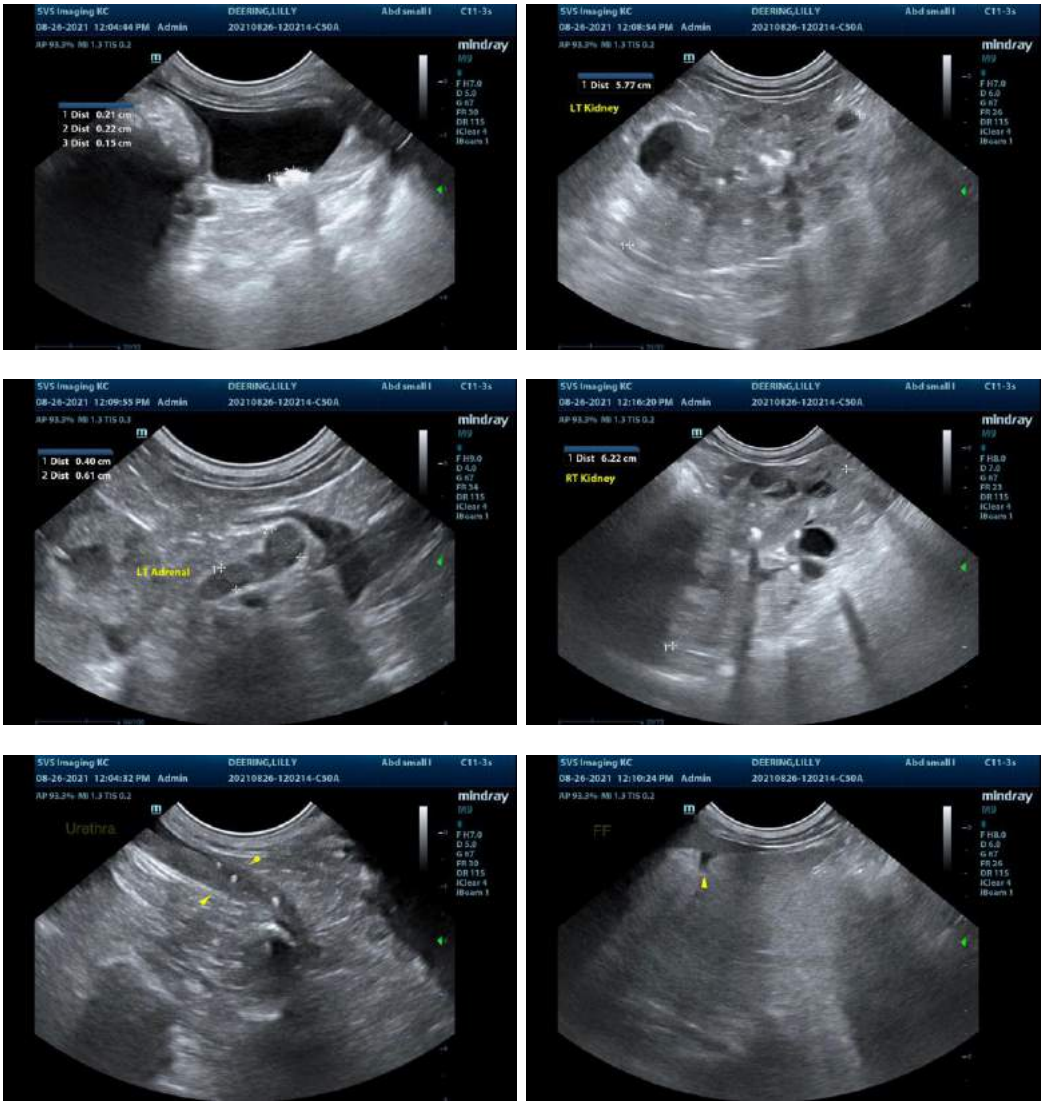
3. If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, Denamarin Advanced). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.
4. Three-view thoracic radiographs are recommended to assess cardiopulmonary status.
5. 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.



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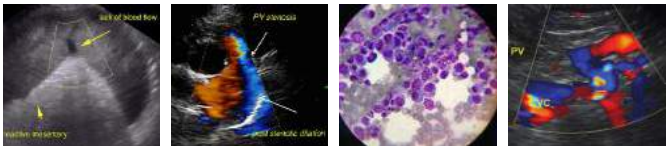

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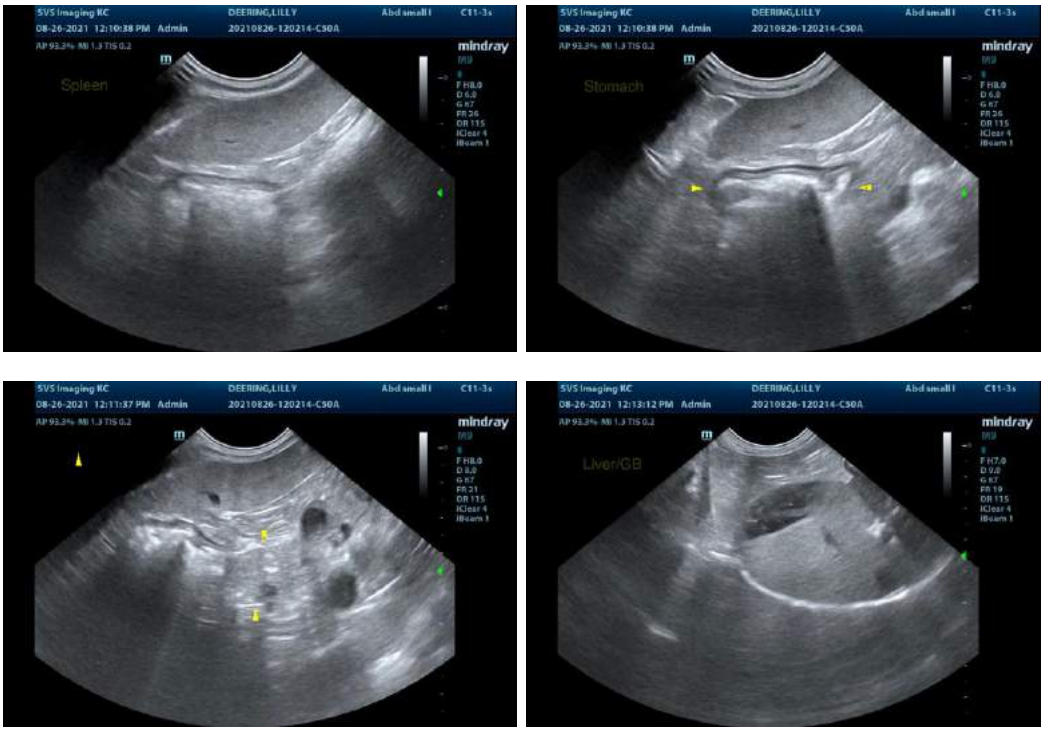

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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