SonoPath
Clinical Sonography & Telecytology
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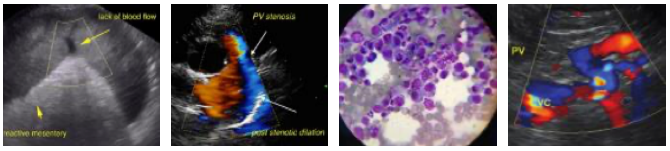


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Lilly Dean

SPECIES
Canine

BREED
Pug

SEX
Female, spayed

AGE
11 Yrs.

WEIGHT
14.6 lbs.

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

IMAGING PERFORMED BY
Dr. Charlie Rodriguez

HOSPITAL NAME
Bethany Family Pet Clinic

REFERRING VET
Dr. Charlie Rodriguez

INVOICE
12045

DATE
9/8/2021

PRESENTING CLINICAL SIGNS

History: Lilly presented this evening for Vomiting multiple times today and being lethargic/weak. Relatively a very healthy old pug.
Abnormal PE/Chem/CBC/UA Results: ALT 444, alp 1163, T billi 1.6, neut 19.93k, wbc 24.94k, monocytes 1.53. Serum was a little icteric. Abdominal and chest rads relatively unremarkable. Sending to emergency clinic over night, they will do bile acids. Vomit had what seemed like bits of broccoli. O says all plants in house and food plants she checked for toxicity. No history of eating anything else other than trying to get at tomatoes.

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 mostly 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 size (4.02 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. A thin hyperechoic medullary band is observed adjacent to the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.41 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. A thin hyperechoic medullary band is observed adjacent to the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.35 cm at cranial pole) (0.40 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.

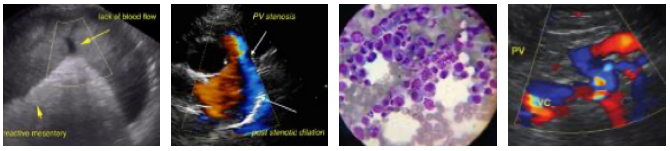
The right adrenal gland is normal size (1.17 cm at cranial pole) (0.55 cm at caudal pole) (1.96 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (0.68 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 contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gall bladder lumen is distended. A moderate amount of echogenic debris is observed within the lumen, some of which is gravity-dependent



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and some of which is suspended and stranding. The cystic and common bile ducts are normal/not seen. Surrounding mesentery is hyperechoic.

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

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The gallbladder changes could be consistent with cholestasis/cholecystitis or a developing mucocele. Regional peritonitis is present.

Secondary Findings:

- The medullary band seen in both kidneys may be a benign incidental finding or subclinical pathology may be present.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- 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.
- Consider empirical treatment for cholecystitis/cholangiohepatitis (Amoxicillin clavulanic acid, Denamarin, Ursodiol) with close monitoring of the patient's liver values as well as sonographic monitoring of the gallbladder. If liver values continue to increase and/or the gallbladder changes continue to progress toward a mucocele, abdominal exploratory with liver biopsy, aerobic and anaerobic bile cultures +/- cholecystectomy may be warranted.
- Given the patient's age, three-view thoracic radiographs should be performed prior to any anesthetic event.
- Also consider leptospirosis testing (i.e., blood and urine PCR, serology) particularly if the disease is endemic in the patient's geographic region.

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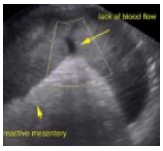
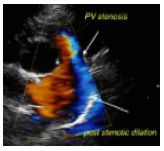
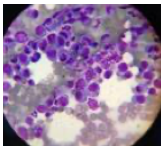
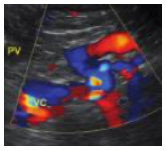

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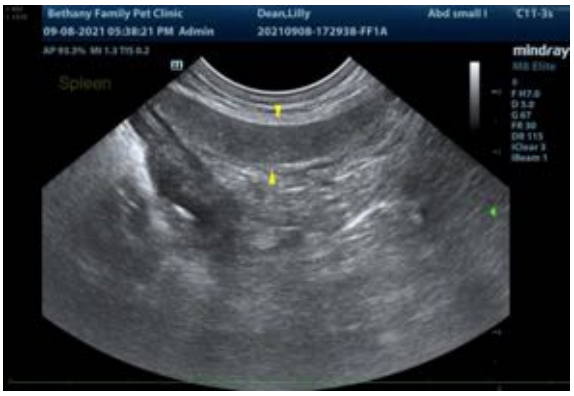

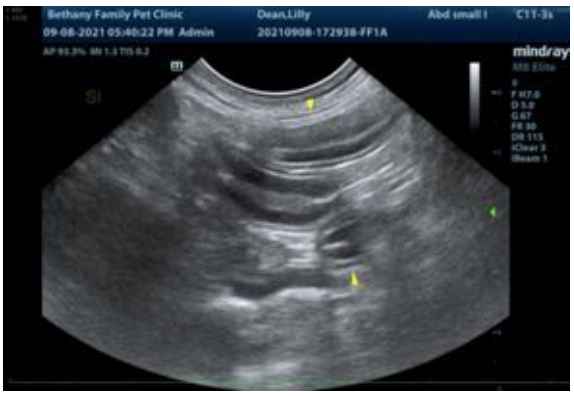

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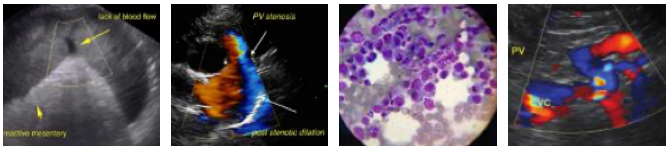

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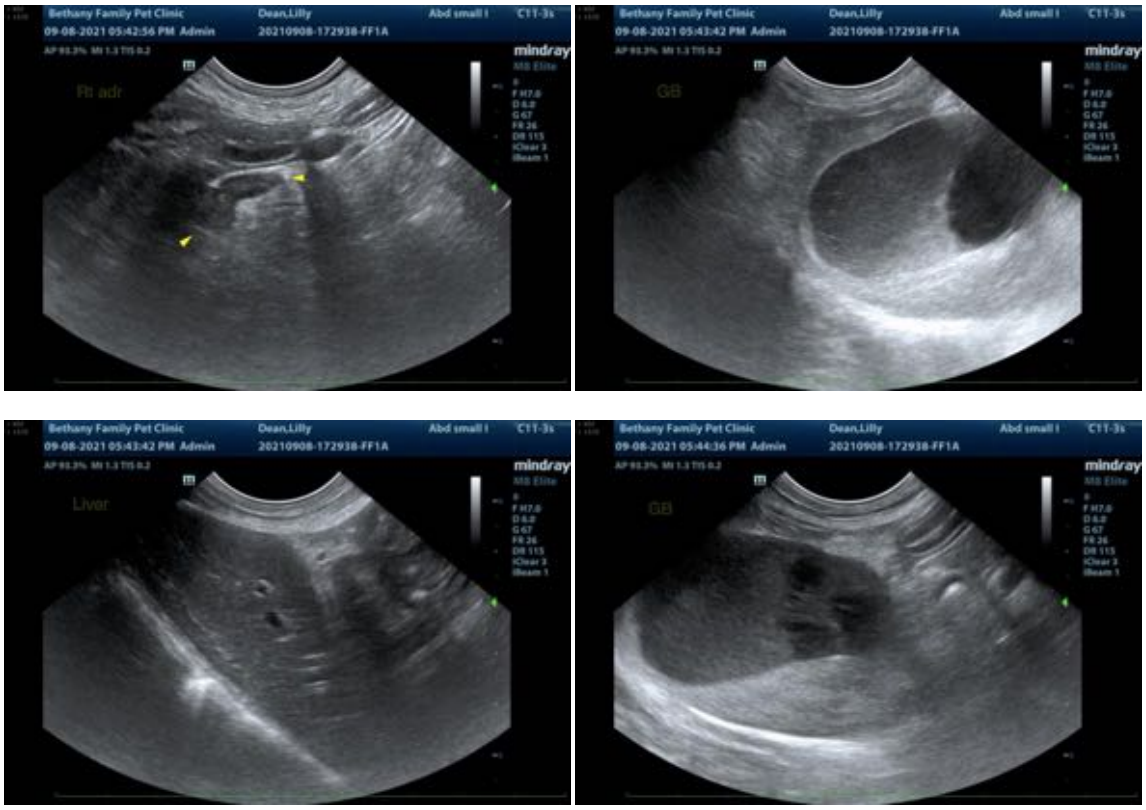

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

Andrea.nicastro@sonopath.com