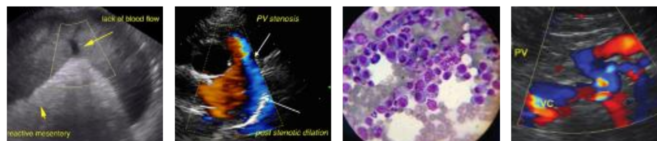


SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Lucy Benigner

SPECIES

Canine

BREED

Labradoodle

SEX

FS

AGE

13 years

WEIGHT

12.4 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Sarah Barthelemy

HOSPITAL NAME

Alpine 24 hr pet hospital

REFERRING VET

Dr. Nielsen

INVOICE

16457

DATE

3/24/23

PRESENTING CLINICAL SIGNS

Diarrhea and hyporexia initially on presentation. Treated in hospital with IVF, pantoprazole, antimicrobials and methadone. Is now BAR but diarrhea continuing and is large volume.

Abnormal PE/Chem/CBC/UA Results: Mildly regenerative mild anemia. Leukocytosis characterized by neutrophilia and monocytosis. Elevated amylase (lipase didn't read).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder presented mild uniformly thickened urinary bladder wall isoechoic to the adjacent normal urinary bladder wall. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. Urinary bladder wall thickness measured 0.4 cm. Mineralization or echogenic foci within the thickened areas of the urinary bladder wall were not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal tone to a depth of 3.0 cm. Anechoic urine was present in the lumen with no sediment or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of urinary bladder tumors was noted.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Pinpoint medullary mineral was noted. The left kidney measured 5.3 cm in length. The right kidney measured 5.1 cm in length.

Adrenal Glands

Mildly expansive to irregular, nonhomogeneous to cystic left adrenal nodule was present measuring 1.8 cm x 1.0 cm. No evidence of capsular escape or vascular invasion was noted. The overall left adrenal gland measured 3.0 cm length x 0.47 cm width at the caudal pole.

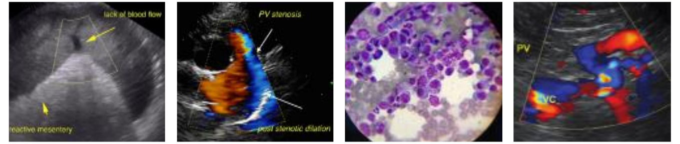
The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.3 cm length x 0.65 cm width at the caudal pole.

Spleen

The spleen exhibited normal size and overall contour with a primarily homogenous parenchyma. Solitary, well-demarcated, mild expansive to hypoechoic splenic nodule was present measuring 0.9 cm in diameter. No splenic masses were noted.

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. Very discrete to emerging hyperechoic likely benign liver nodules suggestive of discrete hyperplasia or lipogranulomas possible, although not definitive. The gallbladder was non-distended in size containing anechoic content with moderate,



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nonorganized, hyperechoic gallbladder debris. No evidence of gallbladder distention or inflammatory criteria was noted. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented mild wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The stomach was empty with mild luminal gas.

The small intestine presented variably prominent wall layering owing to propensity for segmental to generalized variably prominent Intestinal mucosa. Minor segmental duodenojejunal corrugation was noted. No obstructive pattern, loss of intestinal wall layering, or intestinal masses were observed.

Normal visible colon wall layers were present with apparent semi-formed fecal matter, consistent with patient history.

Pancreas

The pancreas exhibited mildly prominent to irregular, nonhomogeneous pancreas base and right pancreatic limb.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Subjective inflammatory gastroenterocolonopathy
- Mild irregular heterogeneous to prominent pancreas
- Cystic nonhomogeneous left adrenal nodule - cystic adenoma, benign hyperplasia, potential for emerging neoplasia, i.e., pheochromocytoma, carcinoma, or other
- Mildly expansive solitary splenic nodule - hyperplasia, hematopoiesis, splenitis, small hematoma, emerging nodular neoplastic / metastatic criteria possible

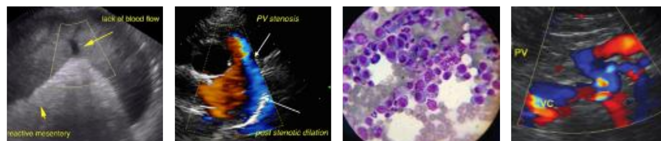
Secondary Findings

- Bilateral mild chronic renal changes with pinpoint medullary mineral
- Possible minor cystitis pattern

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although inflammatory gastroenterocolic criteria is favored, potential for occult, specifically infiltrative intestinal neoplasia may present in a similar sonographic manner. Further assessment of the intestinal tract and pancreas may include a GI panel to include PLI/TLI/Cobalamin/Folate.

Empirically, gastrointestinal supportive care, which may include a hydrolyzed diet trial with potential long-term dietary therapy, high colony count probiotics, empirical cobalamin supplementation, and deworming could be considered. An antibiotic trial as clinically indicated with an assessment of gastrointestinal response would be reasonable. Assuming normal clotting status, screening FNA



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cytology of the splenic nodule, using a 25-gauge needle, is warranted. Monitoring of systemic BP for evidence of hypertension, which may allude to emerging left pheochromocytoma is suggested. Ideally, a sonographic reassessment of the gastrointestinal tract pending response to gastrointestinal support, as well as monitoring of the splenic nodule and left adrenal nodule for evidence of progression is suggested.

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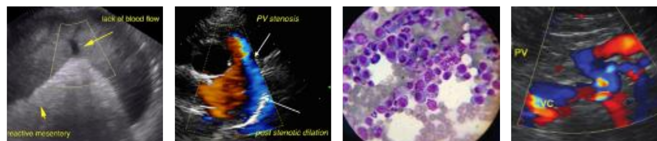

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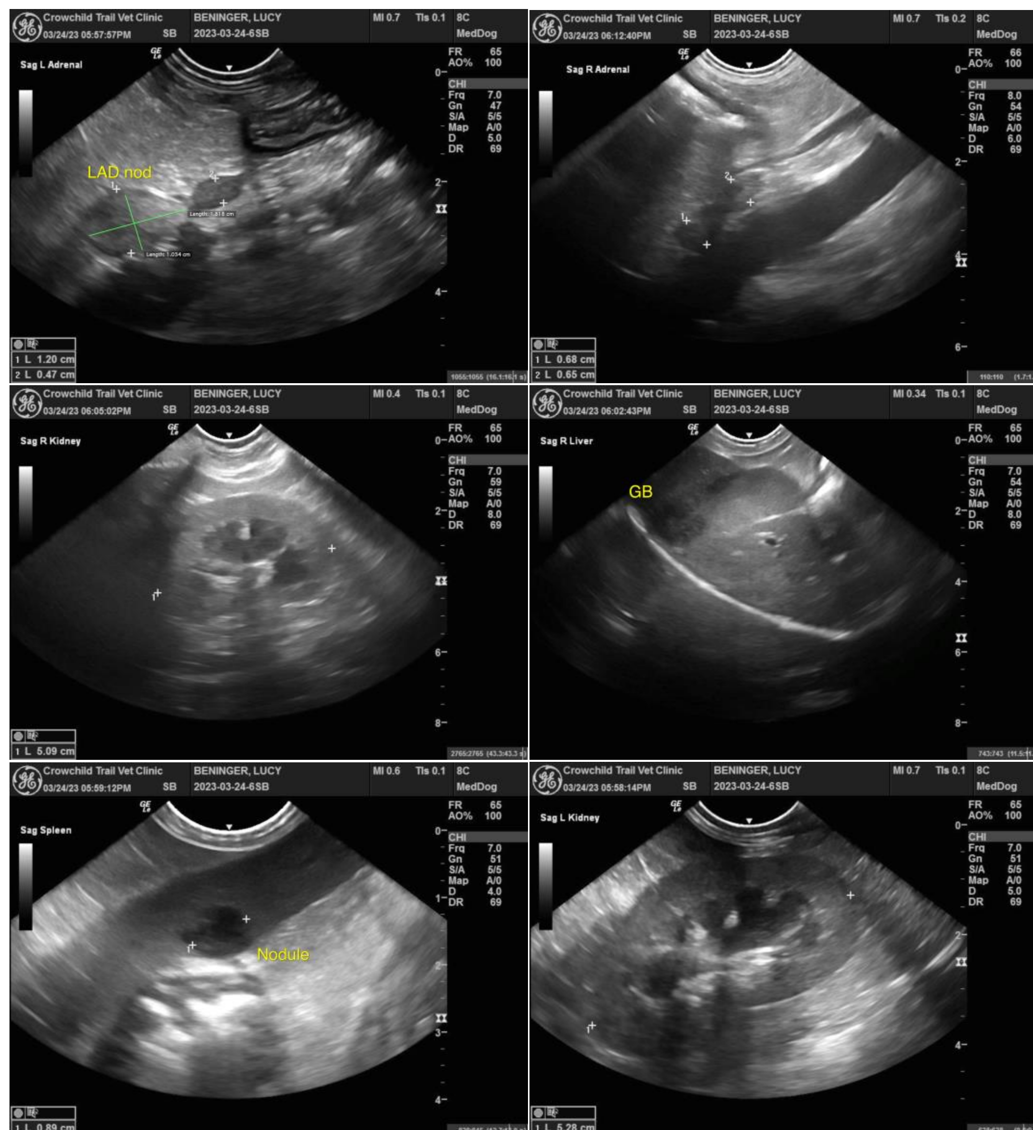

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com