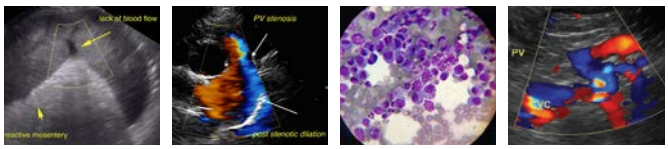
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Leo Barchenko

SPECIES

Canine

BREED

Labrador Retriever X

SEX

Neutered Male

AGE

13 Years

WEIGHT

76.6 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

The Venturing Vet

REFERRING VET

INVOICE

44301

DATE

1/18/23

PRESENTING CLINICAL SIGNS

Patient presents today for chronic diarrhea, PU/PD, liver enzyme elevation, , currently on bland diet, had Panacur trial, has not tried hydrolyzed diet yet, taking probiotic, tried Metronidazole; did not help, on Tylan powder. Was on Amoxicillin for a couple of weeks - had no effect on liver or kidney values.

Abnormal PE/Chem/CBC/UA Results: 11/30/22: AST 89, ALT 245, Alk. Phos. 951, BUN 48, BUN/Creat. 34, T4 WNL. U/A: USG 1.011, protein trace, occult blood trace, RBC 4-10. 12/29/22: ALT 224, Alk. Phos. 1,074, BUN 41, BUN/Creat. ratio 37. Fecal negative.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mild to moderately distended with anechoic urine. The Bladder wall is diffusely mildly thickened (0.48 cm), and the mucosa is mildly irregular. The trigone, ureteral papillae, and visible urethra (to a depth of 2cm) appear normal with no evidence of severe mucosal irregularities, masses or cystic calculi. Findings are most consistent with bacterial cystitis or lack of urine distension. Recommend urinalysis and culture.

The prostate is normal in size (0.70 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (XXcm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal. Numerous cortical cysts are present, the largest of which measures 0.61 cm x 0.92 cm.

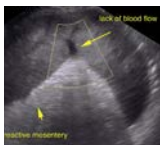
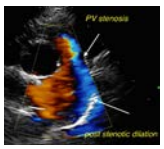
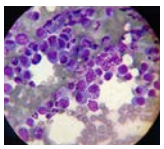
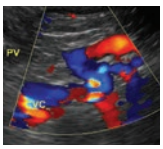
The right kidney has a normal shape and size (6.97 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal. Small cortical cysts are present.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.65 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is large in size and abnormal, measuring 1.6 cm at the cranial pole, 1.0 cm at the caudal pole, and 3.22 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is abnormal in appearance in that there is a hyperechoic nodule at the cranial pole. This nodule measured 1.94 cm x 1.51 cm. There is no evidence of vascular invasion

Spleen

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

PATIENT

Leo Barchenko

SPECIES

Canine

BREED

Labrador Retriever X

SEX

Neutered Male

AGE

13 Years

WEIGHT

76.6 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

The Venturing Vet

REFERRING VET

INVOICE

44301

DATE

1/18/23

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mildly mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are occasional somewhat ill-defined hypo- and hyperechoic lesions. Two hypoechoic lesions are visualized measuring 2.73 cm x 2.14 cm and 0.73 cm x 1.78 cm. Additionally, there is a larger, ill-defined, mixed echogenic nodule/mass visualized measuring 3.3 cm x 2.3 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. In some images, the gastric wall appears slightly prominent, measuring up to 0.65 cm.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with mild to moderate fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.55 cm. Jejunum wall measures 0.37 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

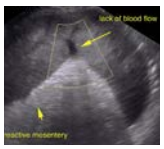
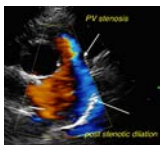
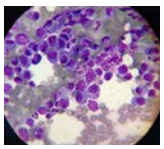
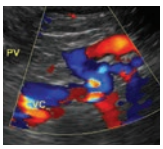
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Mildly thickened urinary bladder wall – The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

- Decreased corticomedullary distinction in both kidneys with small cortical cysts – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Mildly mottled spleen – The diffuse splenic changes are non-specific and could be consistent

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

PATIENT

Leo Barchenko

SPECIES

Canine

BREED

Labrador Retriever X

SEX

Neutered Male

AGE

13 Years

WEIGHT

76.6 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

The Venturing Vet

REFERRING VET

INVOICE

44301

DATE

1/18/23

with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Heterogeneous liver with hypoechoic nodules and a mixed echogenic mass effect – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The hypoechoic nodules have a somewhat benign appearance, although one of them does deviate the hepatic margins somewhat. The mixed echogenic mass effect could be a benign or neoplastic lesion.

- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

- Hyperechoic nodule at the cranial pole of the right adrenal gland – Right adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is large and heterogeneous and has several somewhat subtle lesions that could represent benign or neoplastic lesions. A metastatic pattern seems much less likely. Additionally, there is a nodule on the cranial pole of the right adrenal gland, which could be contributing to liver enzyme elevations.

- Recommend pre- and post-prandial bile acids to evaluate liver function.

- If possible, recommend a fine needle aspirate of some of the nodular lesions, in particular the mixed echogenic larger mass effect in the cranial aspect of the liver (this may be difficult to reach).

- Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

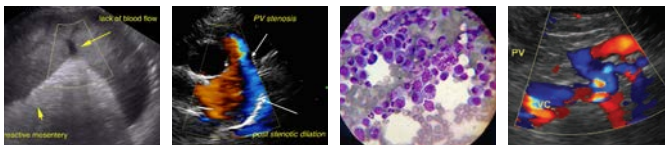
- If additional information about these lesions is desired, consider a contrast CT scan to try and determine if surgical intervention is warranted/possible, etc.

The nodule in the right adrenal gland is of unknown significance. This could represent a benign or neoplastic lesion and it could be secretory or non-secretory. This could be contributing to the liver enzyme elevations, PU/PD, etc. These are my recommendations for further evaluation.

- If signs of cushings are present, consider adrenal function testing. I prefer an ACTH stimulation test combined with an adrenal panel to the University of Tennessee's endocrine lab to look for atypical adrenal hormones as well as cortisol. (other testing can suffice)

- If adrenal dependent cushings is suspected and supported by adrenal function testing consider medical therapy with lysodren or trilostane and/or consider surgical removal (recommend referral to a board certified veterinary surgeon and possible pre op CT)-This can be a challenging surgery with significant risk for complication

- Recommend blood pressure evaluation-if hypertensive consider testing catecholamine levels for a possible pheochromocytoma



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

PATIENT

Leo Barchenko

SPECIES

Canine

BREED

Labrador Retriever X

SEX

Neutered Male

AGE

13 Years

WEIGHT

76.6 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

The Venturing Vet

REFERRING VET

INVOICE

44301

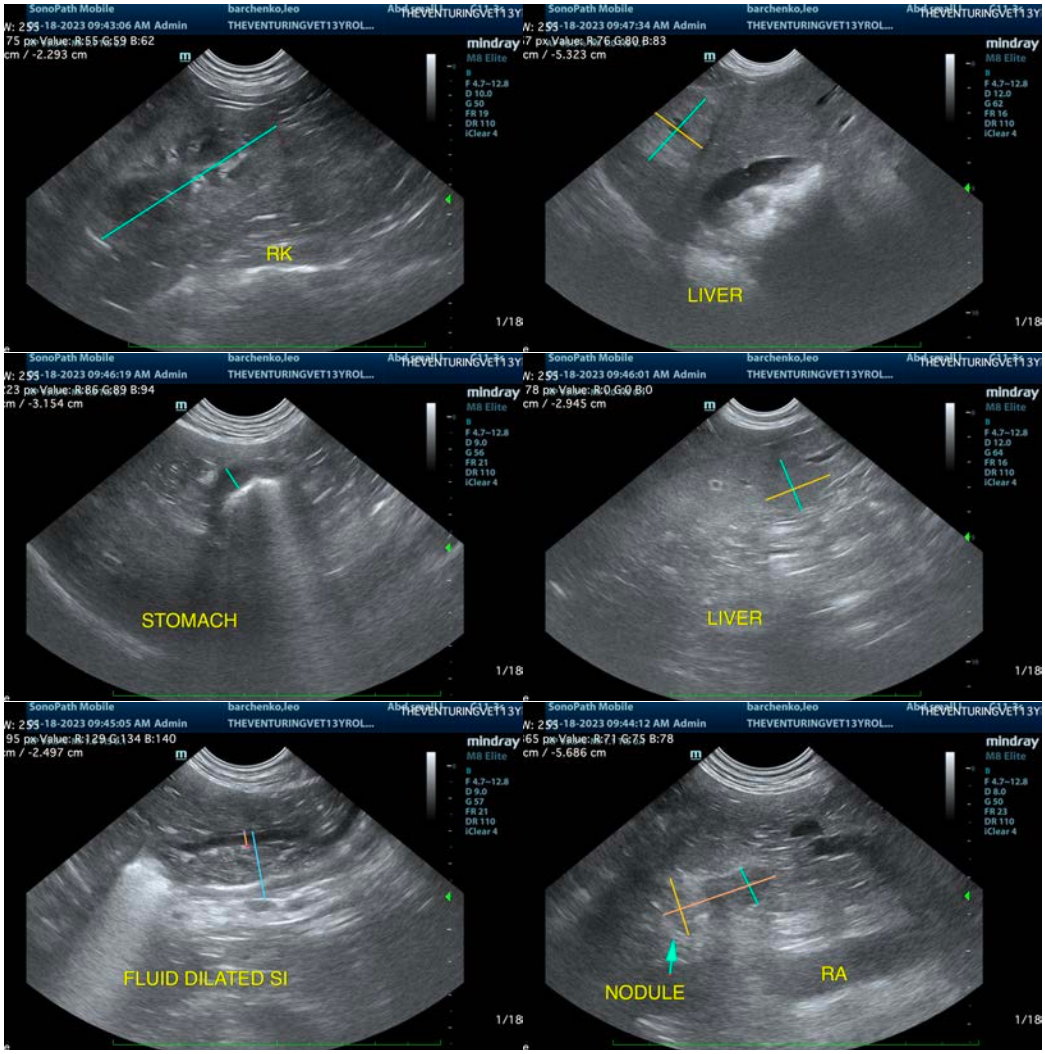
DATE

1/18/23

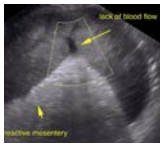
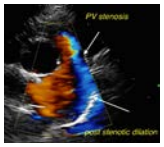
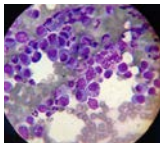
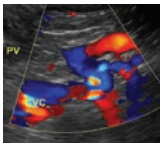
- Due to the invasive nature of these masses a CT scan is recommended to evaluate for metastasis and vascular invasion.
- If no symptoms of cushings are present, consider either referral for surgery or if surgery is not an option consultation with a veterinary oncologist regarding chemotherapeutic options and continued monitoring with ultrasound (in 4-6 weeks) can be considered.
- Some aggressive adrenal tumors can grow quickly and there is risk for acute hemorrhage from vascular invasion.

Both kidneys have decreased corticomedullary distinction and cortical cysts, which could be consistent with age related progressive renal disease. Additionally, the urinary bladder wall appears somewhat thickened, but this can be dependent on the amount of urine distention present. Recommend a blood pressure, urinalysis and culture.

Based on the combination of these issues, a blood pressure evaluation, urinalysis, culture, contrast CT scan of the abdomen to evaluate the adrenal and the liver, and possibly fine needle aspirates of the lvier would be recommended along with 3-view thoracic radiographs.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Leo Barchenko

SPECIES

Canine

BREED

Labrador Retriever X

SEX

Neutered Male

AGE

13 Years

WEIGHT

76.6 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

The Venturing Vet

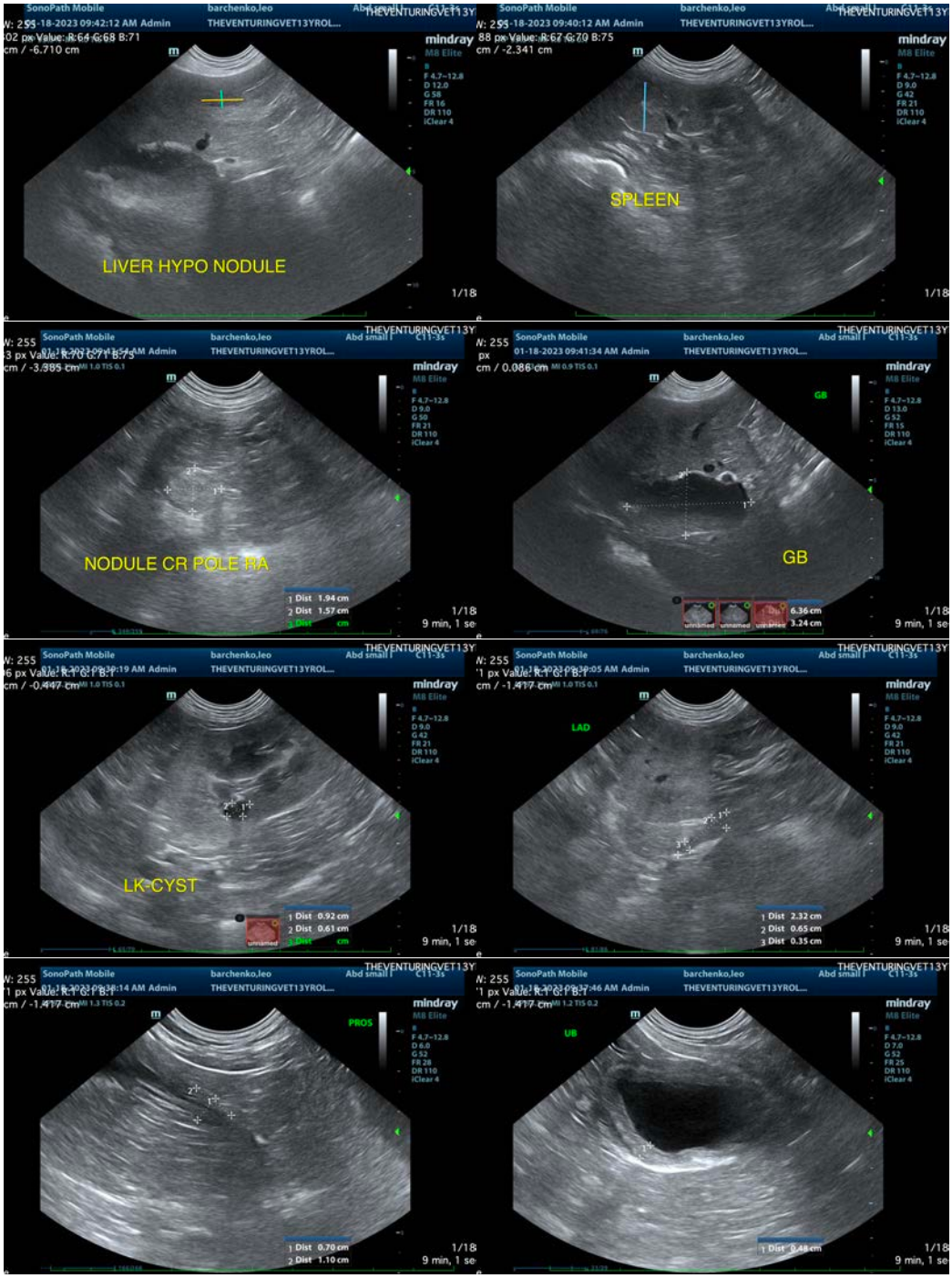
REFERRING VET

INVOICE

44301

DATE

1/18/23



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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

kathleen.sennello@sonopath.com