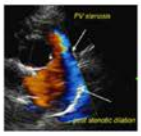
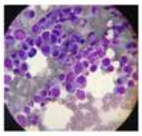
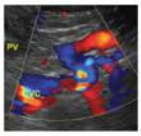
IMAGING PERFORMED BY
SVS Mobile Imaging 262 - 366 - 5970
fredgromalak@gmail.com

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Lucy Arnold

SPECIES

Canine

BREED

Golden Retriever

SEX

Spayed Female

AGE

1 Year 2 Months

WEIGHT

42 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

WVRC – Dr. Bianco

INVOICE

40244

DATE

8/5/22

PRESENTING CLINICAL SIGNS

A transfer from primary care vet due to fever, lameness, concern for splenic enlargement. Lucy started to limp at her right forelimb on 08/03/2022. She had decreased energy and was NI in food (very unusual for her). Did also develop a soft cough overnight. No V/D. Presented to Waukesha Walk-In Vet Clinic for these signs. Do not currently have full records, but owner reports: - 105.0 F, lame on R FL - CXR and ABXR done (lateral) + R FL rads - no abnormalities noted, but spleen was noted to be enlarged. - CBC: WBC 1.39 (L), lymph abs. 0.86 (L), mono abs. 0.1 (L), seg neuts abs. 0.42 (L), Hct 34.91 (L), Plt 24 (L) - CBC done twice: WBC 1.19 (L), lymph abs. 0.88 (L), mono abs. 0.01 (L), seg neuts abs. 0.29 (L), Hct 31.66 (L), Plt 17 (L) - Chem/lytes: AKP 238 (H), amylase 374 (L), Cl 105 (L), all else WNL - 4Dx --> did not receive records, but owner reports this was done and negative. - Recommended coming to WVRC for further care. No recent trauma that owners report, no traveling, UTD on vaccines, on preventatives.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with anechoic urine. The Bladder wall appears mildly thickened and irregular, measuring 0.51 cm. The area of the trigone, ureteral papillae and proximal urethra appear free of any mass lesions or calculi. Findings are most consistent with cystitis or lack of urine distention.

The left kidney has a normal shape and size. (6.62 cm) Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.01 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.55 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 normal in size measuring 0.43 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

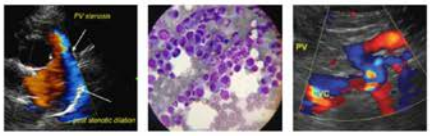
The spleen is normal to borderline large in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and hypoechoic 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. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

IMAGING PERFORMED BY
SVS Mobile Imaging 262 - 366 - 5970
fredgromalak@gmail.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Lucy Arnold

SPECIES

Canine

BREED

Golden Retriever

SEX

Spayed Female

AGE

1 Year 2 Months

WEIGHT

42 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

WVRC – Dr. Bianco

INVOICE

40244

DATE

8/5/22

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. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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. There are occasional prominent lymph nodes visualized. A sublumbar lymph node measures at 0.60 cm in diameter, and there is a mesenteric lymph node visualized measuring 1.07 cm in diameter. The omentum is generally of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Mildly thickened/irregular urinary bladder wall – The urinary bladder is not significantly distended, so this could be artifactual or consistent with cystitis. Recommend urinalysis and culture.
- Borderline large spleen – The shape and echotexture of the spleen largely appears normal, and this is a large dog, so this could be within normal limits.
- Mildly heterogeneous, hypoechoic liver – 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.
- Mild mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely. This can be a normal finding in young dogs.

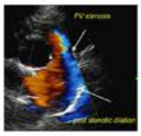
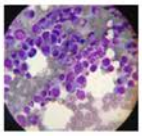
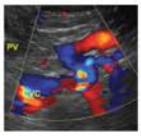
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lesions observed on today's scan are relatively mild. The changes associated with the urinary bladder could largely be due to lack of urine distention. Consider reevaluation of the urinary bladder wall with a full bladder, and a urinalysis and culture.

The spleen largely appears normal and is ample in size, and could be large, but is likely within normal limits for a larger dog. If concern persists, consider a fine needle aspirate.

The liver is subjectively hypoechoic and heterogeneous. This is a subjective finding. If there are liver

IMAGING PERFORMED BY
SVS Mobile Imaging 262 - 366 - 5970
fredgromalak@gmail.com

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Lucy Arnold

SPECIES

Canine

BREED

Golden Retriever

SEX

Spayed Female

AGE

1 Year 2 Months

WEIGHT

42 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

WVRC – Dr. Bianco

INVOICE

40244

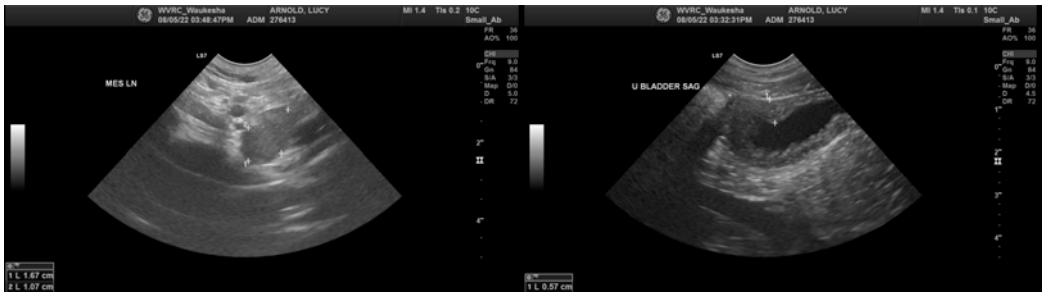
DATE

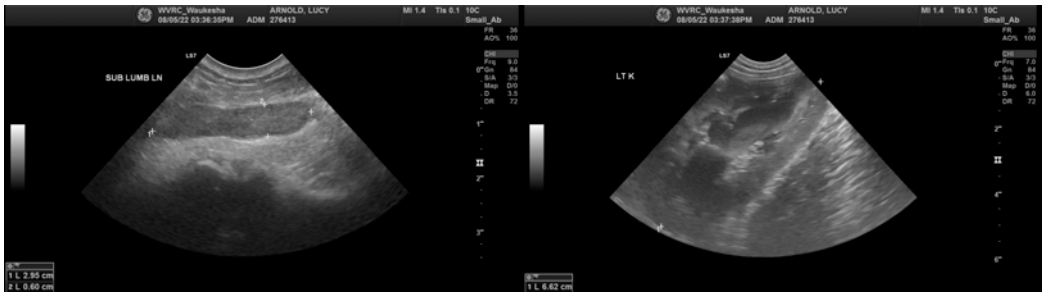
8/5/22

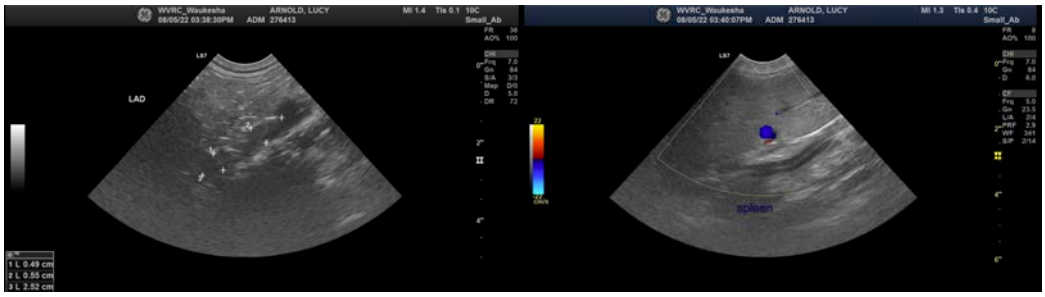
enzyme elevations present, consider a liver function test, Leptospirosis testing, and a fine needle aspirate of the liver. This could be incidental if liver enzyme elevations are not present. It is common for younger dogs to have prominent mesenteric lymph nodes, but given the fever history, you could consider a fine needle aspirate.

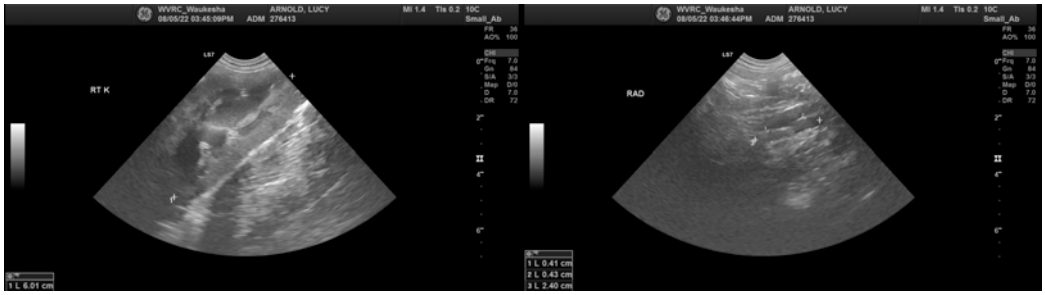
Given the severely elevated fever, age of the patient, thrombocytopenia, etc., the most likely differentials would be infectious disease or autoimmune disease. Confirm the platelet count is real, as this limits your ability to safely do aspirates, etc. Consider a canine comprehensive panel to NC State's vector borne disease lab to thoroughly evaluate for vector borne disease, careful auscultation for a new heart murmur, and/or echocardiogram to look for evidence of endocarditis, urine culture and urinalysis, and if no infectious disease are identified, and lameness persists, consider joint taps in the affected limbs, looking for evidence of polyarthritis.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

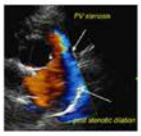
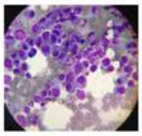
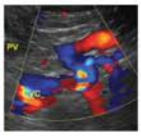








IMAGING PERFORMED BY
SVS Mobile Imaging 262 - 366 - 5970
fredgromalak@gmail.com

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Lucy Arnold

SPECIES

Canine

BREED

Golden Retriever

SEX

Spayed Female

AGE

1 Year 2 Months

WEIGHT

42 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

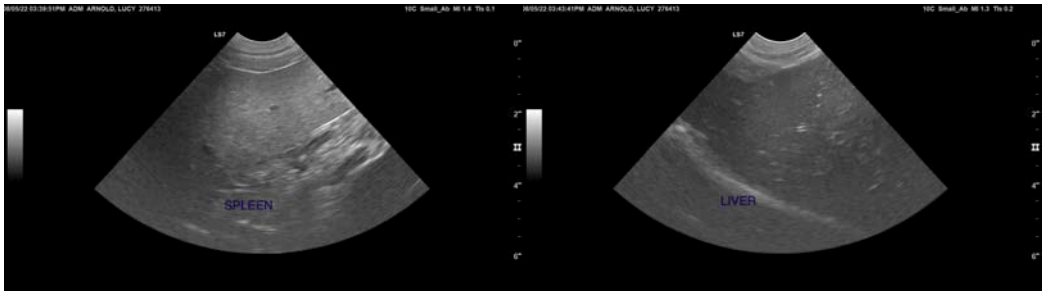
WVRC – Dr. Bianco

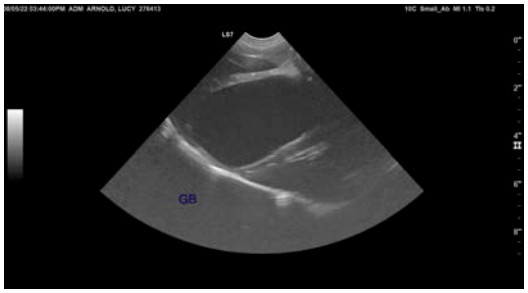
INVOICE

40244

DATE

8/5/22





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