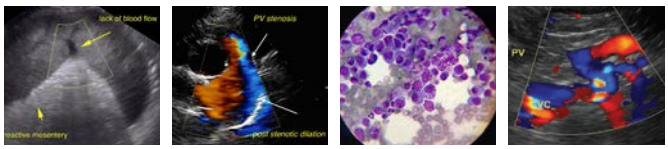
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Shadow Zimic

SPECIES
Canine

BREED
Flat Coated Retriever

SEX
Intact Male

AGE
11 Years

WEIGHT
76.2 Pounds

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

IMAGING PERFORMED BY
Shari Reffi, CVT

HOSPITAL NAME
Andover AH

REFERRING VET
Dr. Hummel

INVOICE
46383

DATE
4/5/23

PRESENTING CLINICAL SIGNS

Regenerative anemia, elevated wbc. Current meds: Doxycycline 200mg bid

Abnormal PE/Chem/CBC/UA Results: Amyl 1407, PSL 158, Hgb 7.7 (12.1 L); Nrbc 3 (1 H); Hct 25 (36 L); PLT 166 (170 L) clumping noted; Wbc 19.7 (15.3 H); Rbc 4.1 (4.8 L); U/A- USG 1.030, Bld 3+; RBC 11-20; Prot 3+; Bili 3+

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is large, hyperechoic and heterogeneous, measuring 5.77 cm x 5.12 cm.

The left kidney has a normal shape and size (7.01 cm). Overall echogenicity is normal with adequate 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.

The right kidney has a normal shape and size (6.94 cm). Overall echogenicity is normal with adequate 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.

Adrenal Glands

The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect is visualized.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect is visualized.

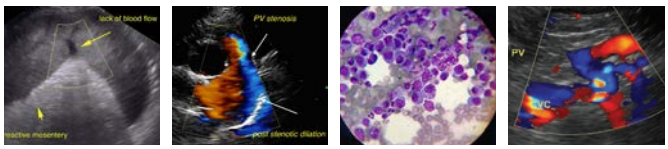
Spleen

The spleen is large and irregular. The spleen echotexture is heterogenous and mottled. The blood flow through the hilus and splenic parenchyma appears normal. Much of the body of the spleen appears fairly normal in size with a mildly mottled echotexture. Towards the head of the spleen, there is a very large mixed echogenic cavitated/cystic mass effect measuring 10.84 cm x 15.02 cm. This is suspected to originate in the spleen, but a definitive point of attachment is not visualized.

Liver

The liver is subjectively normal in size, and 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. In the caudal right region of the liver, the tissue appears focally slightly irregular with an ill-defined mass lesion measuring 4.93 cm x 4.69 cm. A large irregular portal lymph node cannot be ruled out as an alternate differential.

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



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

PATIENT

Shadow Zimic

SPECIES

Canine

BREED

Flat Coated Retriever

SEX

Intact Male

AGE

11 Years

WEIGHT

76.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Andover AH

REFERRING VET

Dr. Hummel

INVOICE

46383

DATE

4/5/23

Gastrointestinal

The stomach contains moderate ingesta. 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 area of 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

There is a small to moderate amount of echogenic free fluid. There is abnormal tissue visualized within the mesentery, which could represent clot, omental metastasis, abnormal lymph nodes. This tissue is visualized in the cranial left abdomen, and additionally there is a more discrete hypoechoic mass effect visualized caudal to the large primary mass measuring 4.98 cm x 4.13 cm. This could be an extension of the primary mass, an omental mass lesion, or an abnormal lymph node. Overall, the omentum is abnormal/nodular, inflamed, and somewhat edematous.

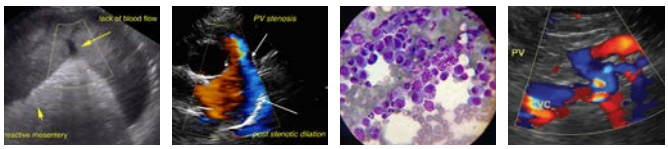
Other

Both the left and right testicle are visualized. The left testicle is normal. The right testicle measures 4.32 cm in length with a hyperechoic nodule measuring 1.26 cm x 2.78 cm.

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

ULTRASONOGRAPHIC FINDINGS

- Large hyperechoic prostate – findings are most consistent with benign prostatic hypertrophy +/- prostatitis.
- Hyperechoic nodule in the right testicle – There is a nodule visualized in the right testicle. Consider such differentials as benign or neoplastic lesions such as Leydig cell tumor, Sertoli cell tumor, seminoma, granuloma, etc. Recommend neuter with histopathology (as treatment of choice), or cytology.
- Very large mixed echogenic cystic/cavitated abdominal mass – findings are most consistent with a splenic mass, although this is not definitive. The mass distorts the splenic capsule. Differentials for the mass include neoplasia (e.g., hemangiosarcoma, hemangioma), hematoma, abscess, other. A neoplastic process is favored.
- Heterogeneous liver with irregular tissue in the right caudal region – The diffuse hepatic



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

PATIENT

Shadow Zimic

SPECIES

Canine

BREED

Flat Coated Retriever

SEX

Intact Male

AGE

11 Years

WEIGHT

76.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Andover AH

REFERRING VET

Dr. Hummel

INVOICE

46383

DATE

4/5/23

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. In the right caudal aspect of the liver, there is some focal irregular tissue, which could be concerning for a lymph node in the region or a hepatic mass. This could represent an unrelated mass lesion or a metastatic lesion.

- Small to moderate amount of echogenic free fluid – findings are concerning for hemorrhage. Recommend sampling for cytologic evaluation.
- Irregular omentum with hypoechoic regions – findings are consistent with omental inflammation +/- omental mets/nodules.
- Focal mass effect in the caudal abdomen – This lesion appears separate from the primary mass lesion and could represent a metastatic lesion, an abnormal lymph node, etc.

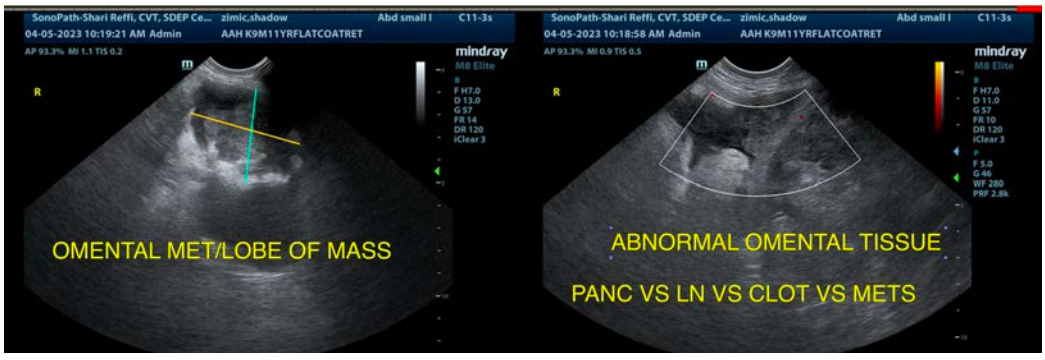
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a large mixed echogenic mass effect in the mid abdomen, the size of which displaces much of the normal anatomy within the abdomen. This lesion appears to be in the region of the head of the spleen, and the spleen can be associated with the mass effect nearby, but a definitive attachment is not clearly visualized. The omentum surrounding this mass lesion is irregular with hypoechoic regions that could be consistent with clot formation, omental metastasis, etc.

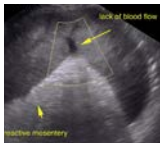
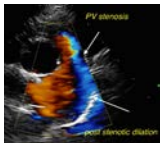
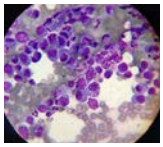
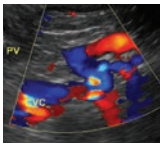
Additionally, there are two other discrete areas of concern, one at the caudal right liver where there is abnormal tissue consistent with a mass effect either involving the liver or there could be a lymph node in the portal region, and additionally there is a discrete hypoechoic mass effect caudal to the primary mid abdominal mass, which is concerning for a metastatic lesion or an enlarged lymph node.

Options moving forward would include exploratory surgery with the knowledge that this could be a more disseminated disease process, or a contrast CT scan, which may give a more global view and possibly pick up finer metastasis, if present. These findings are very concerning for possible metastatic neoplasia.

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



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Shadow Zimic

SPECIES

Canine

BREED

Flat Coated Retriever

SEX

Intact Male

AGE

11 Years

WEIGHT

76.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Andover AH

REFERRING VET

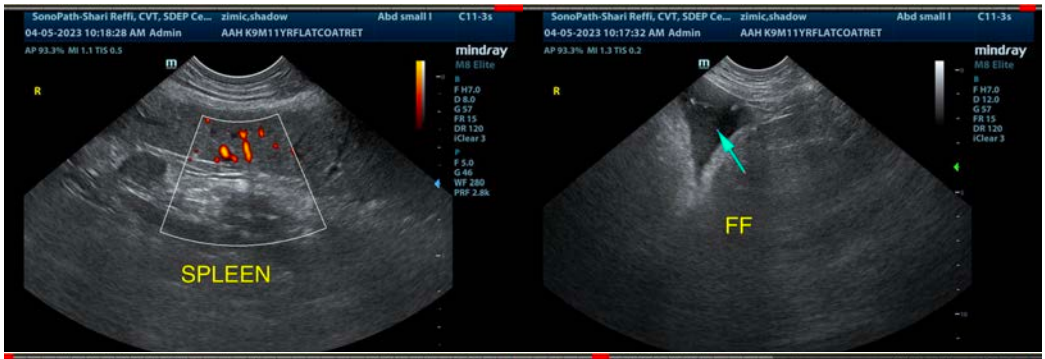
Dr. Hummel

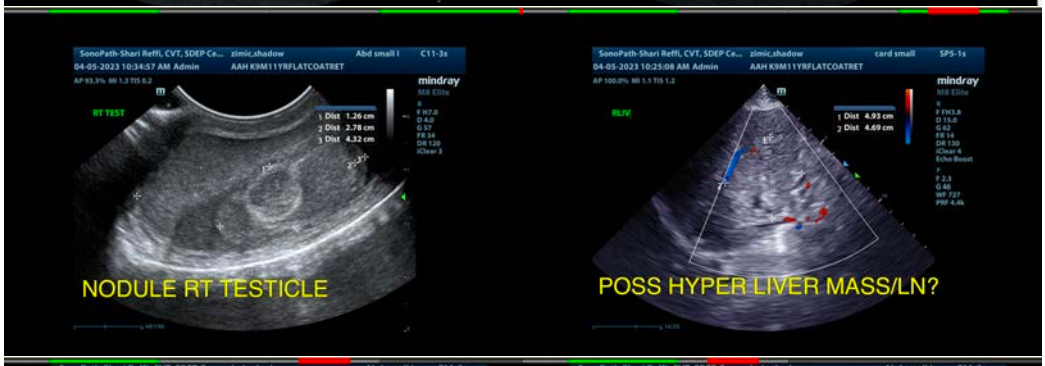
INVOICE

46383

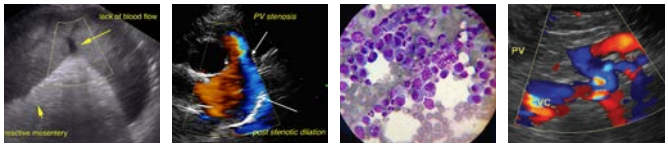
DATE

4/5/23





SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Shadow Zimic

SPECIES

Canine

BREED

Flat Coated Retriever

SEX

Intact Male

AGE

11 Years

WEIGHT

76.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Andover AH

REFERRING VET

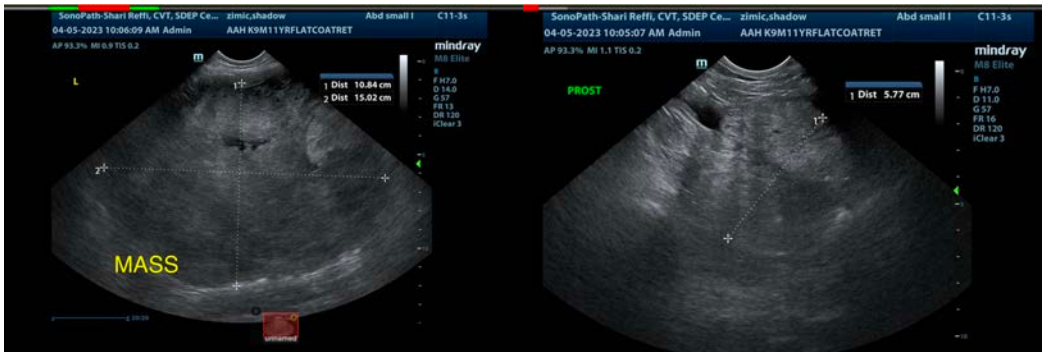
Dr. Hummel

INVOICE

46383

DATE

4/5/23



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