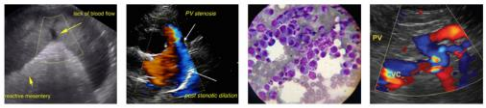


PATIENT

Sadie Massi

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

FS

AGE

13yr

WEIGHT

14.4lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Falmouth Animal Hospital

REFERRING VET

Dr. Palmer

INVOICE

12366ag

DATE

12/05/2022

PRESENTING CLINICAL SIGNS

Crying in middle of the night for food, always seems to be hungry. Abdomen appears mildly-moderately distended, non-painful. Litter mate died from tumor on liver. 1 lateral abdomen radiograph: moderate-severe hepatomegaly.

Abnormal PE/Chem/CBC/UA Results: High ALT, K, Low Na.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

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 to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Minor bilateral pyelectasia and cortical cysts were present. The left kidney measured 4.8 cm in length. The right kidney measured 4.6 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The bilateral adrenal glands were mildly prominent in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.59 cm width in the cranial pole and 0.69 cm width in the caudal pole. The right adrenal gland measured 1.0 cm width in the cranial pole and 0.67 cm width in the caudal pole.

Spleen

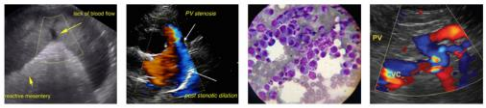
The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

Liver

The liver presented with reginal enlargement secondary to an ill-define mixed echogenic mass in the mid to left liver measuring ~ 7.3 cm x 6.2 cm. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content and moderate dependent to non-dependent mobile echogenic debris. Mild congealed debris was present in the gallbladder neck and cystic biliary duct. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.



PATIENT

Sadie Massi

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

FS

AGE

13yr

WEIGHT

14.4lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Falmouth Animal Hospital

REFERRING VET

Dr. Palmer

INVOICE

12366ag

DATE

12/05/2022

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum, likely consistent with age related changes and considered incidental. No signs of active inflammation or neoplasia.

Free Abdomen

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

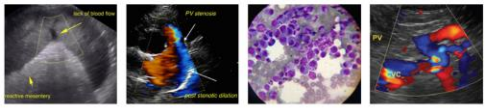
ULTRASONOGRAPHIC FINDINGS

- Hepatopathy with ill-defined mixed echogenic mass-nonspecific, inflammatory/immune mediated disease, vacuolar hepatopathy, nodular hyperplasia, fibrosis, hematopoiesis, infiltrative neoplasia possible
- Moderate gallbladder debris (non-mucocele)
- Bilateral chronic renal changes with minor pyelectasia and cortical cysts
- Mildly prominent non-homogeneous adrenal glands-suspect age related adrenal changes, potential for neoplastic criteria unlikely

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Assuming normal clotting status and using a 25g needle, a liver mass FNA for screening cytology is warranted for further assessment. Core surgical biopsy is likely required for a definitive diagnosis. Given familial history in this patient, concern for hepatobiliary neoplasia warranted although not definitive. Hepatosupportive medications such as Denamarin or Vitamin E as well as Ursodiol due to its antioxidant and immunomodulatory effects within the liver would be warranted, although these medications may not result in decreased hepatic enzyme levels.

PAUS
Pet Animal Ultrasound Service
4paus.com 781-635-5677



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

PATIENT

Sadie Massi

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

FS

AGE

13yr

WEIGHT

14.4lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Falmouth Animal Hospital

REFERRING VET

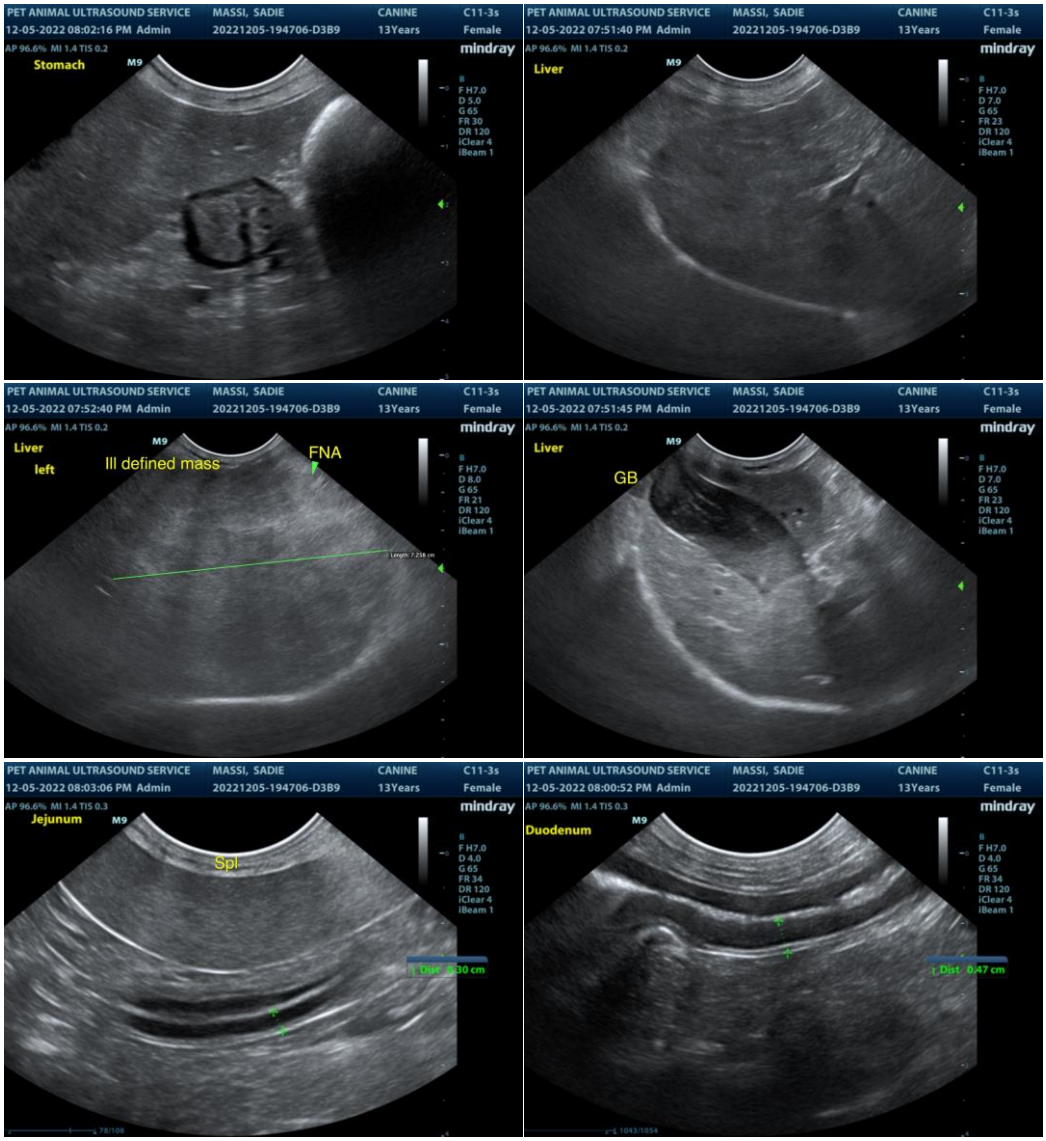
Dr. Palmer

INVOICE

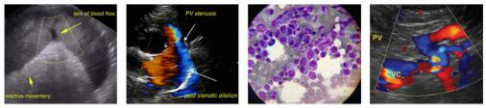
12366ag

DATE

12/05/2022



PAUS
Pet Animal Ultrasound Service
4paus.com 781-635-5677



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

PATIENT

Sadie Massi

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

FS

AGE

13yr

WEIGHT

14.4lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Falmouth Animal Hospital

REFERRING VET

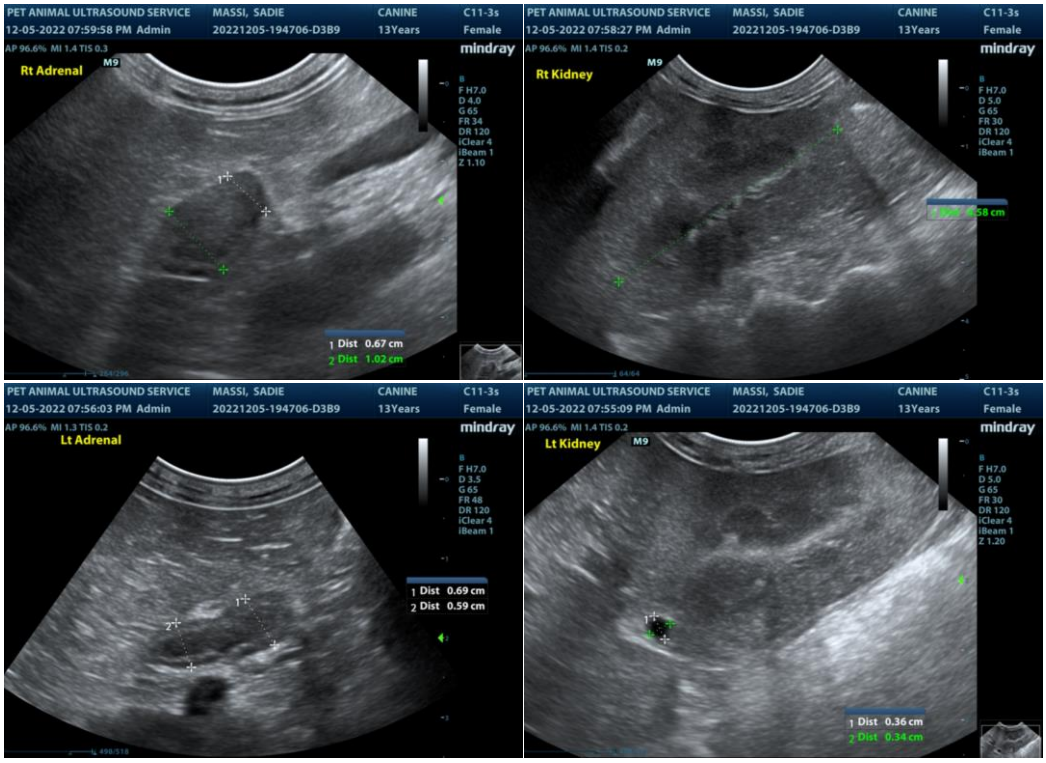
Dr. Palmer

INVOICE

12366ag

DATE

12/05/2022



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