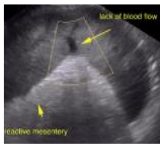
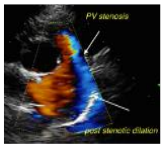
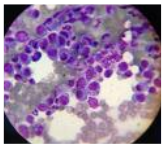
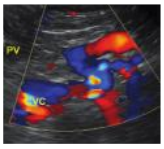
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Manye Recalde

SPECIES
Canine

BREED
Shepherd Mix

SEX
Intact Male

AGE
14 Years

WEIGHT
Shepherd Mix

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

IMAGING PERFORMED BY
Diane McFadden

HOSPITAL NAME
Newton VH

REFERRING VET
Dr. Verhalen

INVOICE
20950

DATE
2/3/23

PRESENTING CLINICAL SIGNS

History: vomiting, diarrhea, suspect abdominal mass vs organomegaly

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	**MR VMAX** (m/s)	**TR VMAX** (m/s)	**LA/AO** (Boon method)	**LA/AO** (Heart Base; Swe)	**FS** (%)	**EF** (%)	**EPSS** (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	5.0	2.0	NM	2.3	29	60	0.4
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**LA** 2D short axis Base view (cm)	**LVIDd** Avg; 2D and m-mode short axis (cm)	**LVIDs** Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	241	1.0	0.8	--	6.8	5.2	--

Cardiac Presentation

Mild to moderate left ventricular dilation was noted, with borderline subnormal LV systolic dysfunction. EPSS was within normal limits, with mild increased LV sphericity. Subjective borderline decreased LV wall thickness was noted. Moderate to severe LA enlargement was noted. The. Mitral valve appears to be mildly thickened with no obvious prolapse into the left atrial lumen. Moderate centralized to eccentric mitral regurgitation was present on doppler. The tricuspid valve appears to be mildly thickened with normal right atrial size. Moderate tricuspid insufficiency was present on doppler. The aortic valve was normal with normal measured LVOT outflow velocity. No overt AI noted. Normal pulmonic valve with normal measured RVOT velocity. No PI noted. No overt pericardial or pleural effusion was noted. No obvious cardiac tumors were present. Consistent tachycardia was noted.

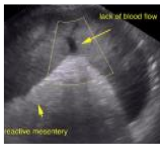
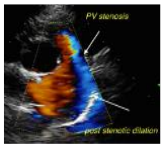
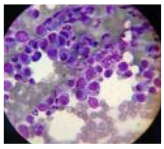
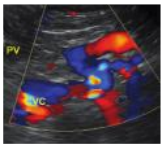
Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm 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.

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. The left kidney measured 7.1 cm in length. The right kidney measured 7.3 cm in length.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Manye Recalde

SPECIES

Canine

BREED

Shepherd Mix

SEX

Intact Male

AGE

14 Years

WEIGHT

Shepherd Mix

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Verhalen

INVOICE

20950

DATE

2/3/23

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.3 cm length x 0.63 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 1.0 cm width at 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. 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. No splenic masses or nodules were noted.

Liver

The liver presented enlarged in size with symmetrical yet swollen contour. The parenchyma exhibited conserved uniform parenchyma with normal echogenicity isoechoic to the spleen and falciform fat. Mildly dilated cranial abdominal caudal vena cava was noted with potential vena cava spontaneous contrast.

The gallbladder was nondistended with mild nonorganized echogenic debris. No overt or significant gallbladder wall edema. 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.

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 parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

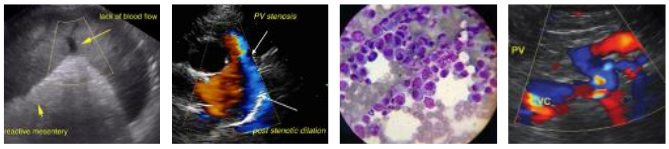
Free Abdomen

Moderate volume anechoic ascites was present.

ULTRASONOGRAPHIC FINDINGS

- Tachyarrhythmia
- Moderate to severe LA enlargement, borderline subnormal LV contractility
- MR/TR- no overt clinical pulmonary hypertension

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Manye Recalde

SPECIES

Canine

BREED

Shepherd Mix

SEX

Intact Male

AGE

14 Years

WEIGHT

Shepherd Mix

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Verhalen

INVOICE

20950

DATE

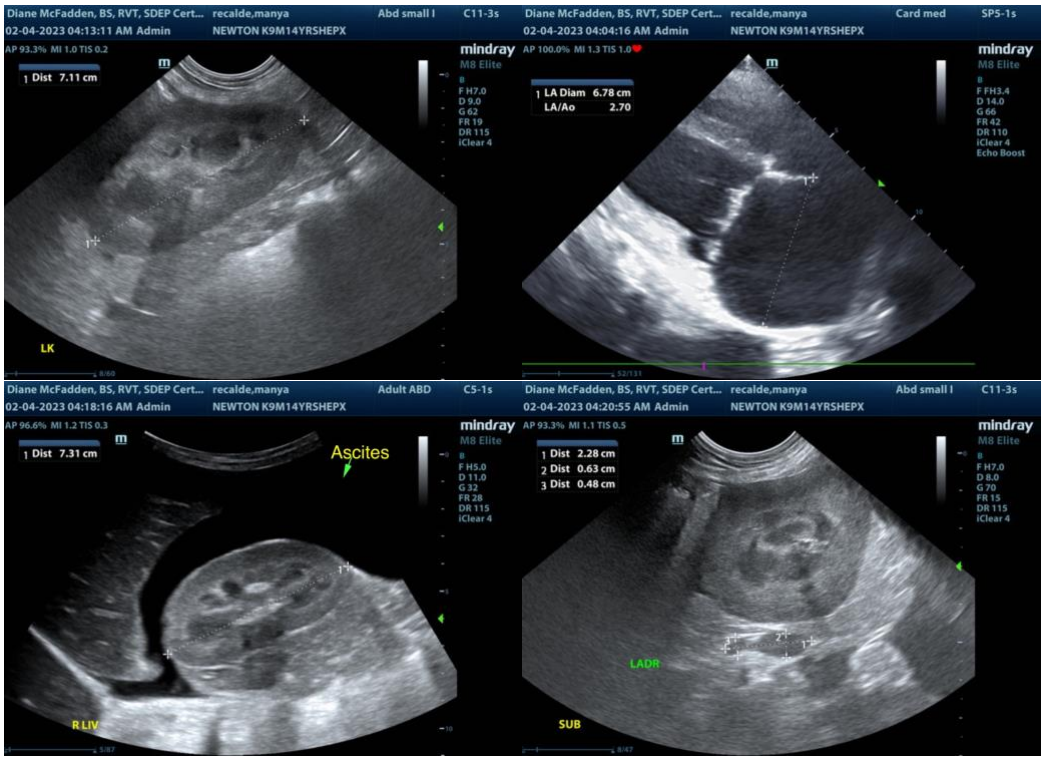
2/3/23

- Congestive hepatomegaly
- Possible cranial abdominal caudal vena cava spontaneous contrast
- Moderate volume ascites
- Mild chronic renal changes

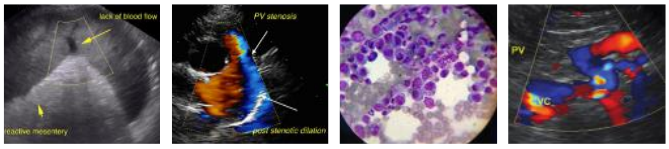
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cardiomyopathy in this patient may be primary in nature, i.e., DCM-like cardiomyopathy, chronic mitral valve disease or potentially secondary to taurine deficiency, hypothyroidism, myocarditis, tachycardia induced cardiomyopathy or less likely infiltrative disease, such as lymphoma. While left sided structural disease predisposes to left sided congestion, the consistent tachyarrhythmia predisposes to right sided congestion, as indicated by the congestive hepatomegaly and abdominal ascites. ECG assessment is strongly recommended for further clarification of the arrythmia, i.e., atrial fibrillation or other.

Full dietary history, taurine levels, troponin level, if clinical concern for grain free boutique, exotic diet or myocarditis is warranted. Hospitalization with IV diuretic and rate control therapy, pending ECG assessment is recommended. Lasix/spironolactone combination 1-2 mg/kg PO BID, Pimobendan 0.3 mg/kg PO BID, and rate control therapy pending further arrythmia assessment or potentially empirical Diltiazem BID to TID is suggested. Ace-inhibitor medication is suggested if systemic BP is >130 (not advised if <130). Monitoring of heart rate, renal parameters and BP, going forward, is advised. Recheck echocardiogram is suggested in 7-10 days. Extremely guarded prognosis.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Manye Recalde

SPECIES

Canine

BREED

Shepherd Mix

SEX

Intact Male

AGE

14 Years

WEIGHT

Shepherd Mix

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

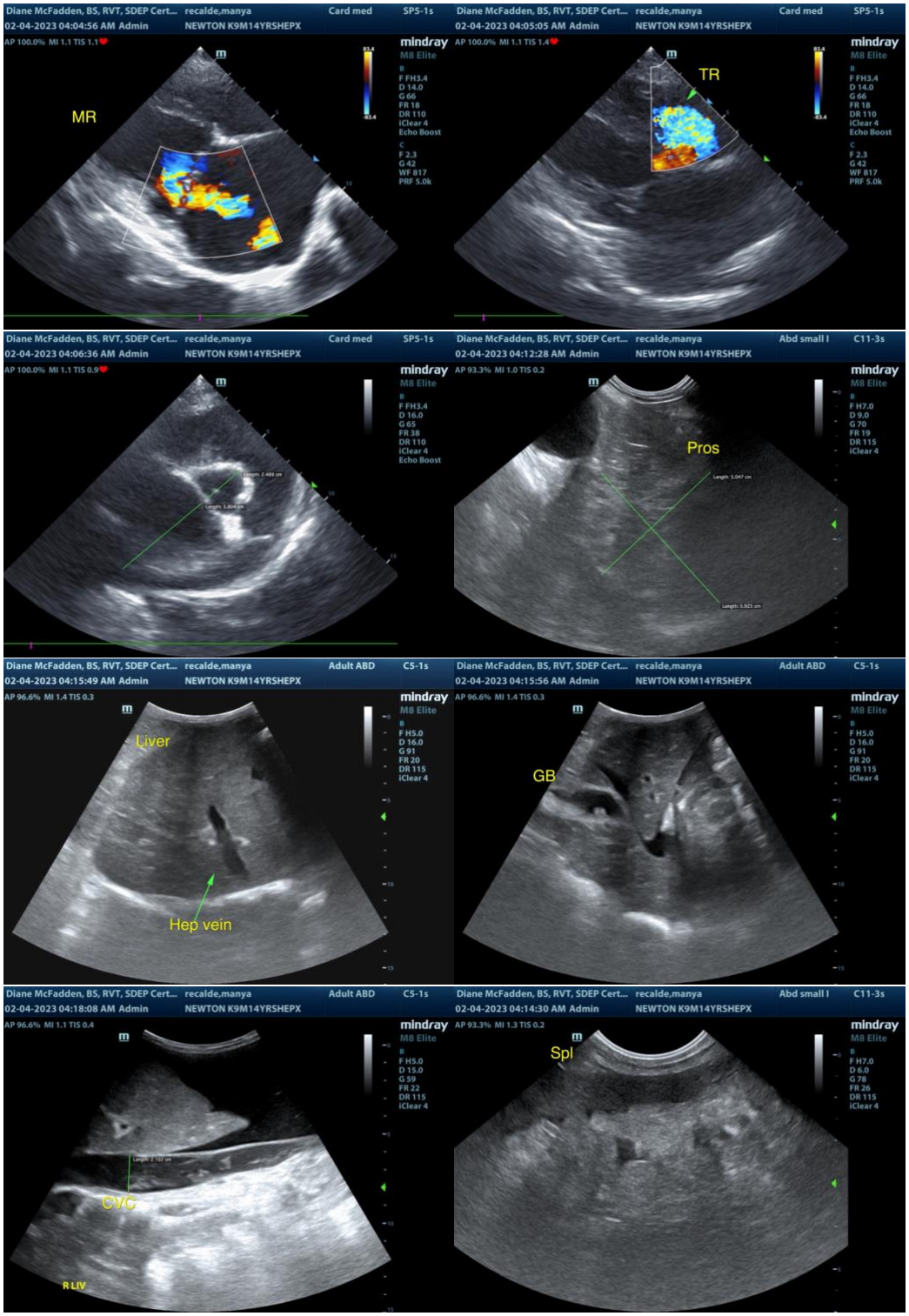
Dr. Verhalen

INVOICE

20950

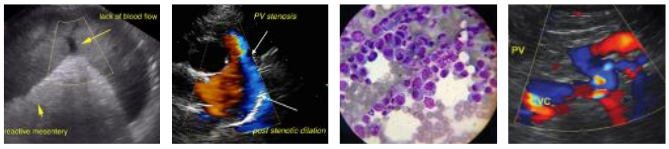
DATE

2/3/23



The information and recommendations provided are based on the images presented by the referring veterinarian. 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



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

PATIENT

Manye Recalde

SPECIES

Canine

BREED

Shepherd Mix

SEX

Intact Male

AGE

14 Years

WEIGHT

Shepherd Mix

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Verhalen

INVOICE

20950

DATE

2/3/23

can be of any further assistance please contact me.

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