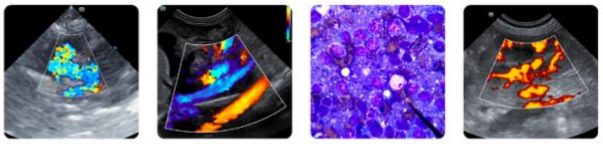


PATIENT

Riley Dey

SPECIES

Canine

BREED

Miniature Doberman

SEX

Neutered Male

AGE

12 Years

WEIGHT

12.6 lbs

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Dr. Ackmann

HOSPITAL NAME

Buffalo Veterinary Clinic

REFERRING VET

Garry Gotfredson, DVM

INVOICE

16367

DATE

05/19/26

PRESENTING CLINICAL SIGNS

10/12/21- Grade III heart murmur discovered at previous clinic, they started him on Enalapril 5mg (1/2 once daily); currently on same dose. Chronic liver value elevation as of 5/1/25, started and currently on Denamarin.

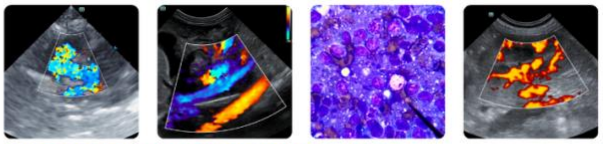
Abnormal PE/Chem/CBC/UA Results: 5/1/25- ALP 1,443, bilirubin total 1.1, amylase 402 6/2/25- ALP 940, amylase 356 8/11/25- ALP 1,847 10/13/25- ALP 837 1/13/26- BUN 29, ALP 1,983, amylase 477

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	**MR VMAX** (m/s)	**TR VMAX** (m/s)	**LA/AO** (M-Mode)	**LA/AO** (Heart Base; Swe)	**FS** (%)	**EF** (%)	**EPSS** (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	--	2.6	NM	1.6	46	80	0.3
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (lbs)	**LAD** LA MAX 4 Chamber	**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	NM	1.3	0.7	12.6	3.8	3.2	--

Cardiac Presentation

The echocardiogram in this patient demonstrated borderline to mild increased **left atrial** dimension based on 2 different LA measurement methods with normal intra-atrial septum. The cranial and caudal **mitral** valve leaflets presented mild thickening consistent with mild endocardiosis. Doppler indicated moderate eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour and borderline increased LV dimension. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. Minor aortic valve insufficiency on Doppler. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated mild thickening with insufficiency on doppler with possible mild underestimation. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of cardiac / pericardial tumors was visible.



PATIENT

Riley Dey

SPECIES

Canine

BREED

Miniature Doberman

SEX

Neutered Male

AGE

12 Years

WEIGHT

12.6 lbs

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Dr. Ackmann

HOSPITAL NAME

Buffalo Veterinary Clinic

REFERRING VET

Garry Gotfredson, DVM

INVOICE

16367

DATE

05/19/26

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 mineral or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic change were noted.

Normal size and margination was 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 3.9 cm in length. The right kidney measured 4.0 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.44 cm width at the caudal pole.

The right adrenal gland was indistinctly visualized yet overtly normal in size, position and shape. The right adrenal gland subjectively measured 0.39 cm width at the caudal pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver & Gallbladder

The liver presented subjective mildly enlarged in size. 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 mild nonorganized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

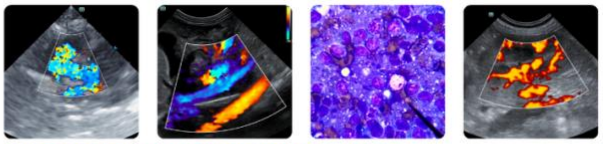
Gastrointestinal

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



PATIENT

Riley Dey

SPECIES

Canine

BREED

Miniature Doberman

SEX

Neutered Male

AGE

12 Years

WEIGHT

12.6 lbs

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Dr. Ackmann

HOSPITAL NAME

Buffalo Veterinary Clinic

REFERRING VET

Garry Gotfredson, DVM

INVOICE

16367

DATE

05/19/26

The pancreas was normal in size and contour with isoechoic mildly heterogeneous remodeled parenchyma compared to adjacent nonreactive omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM early to mild B2).
- Tricuspid insufficiency- estimated pulmonary pressure gradient may suggest mild increased pulmonary pressure without evidence of clinical pulmonary hypertension.
- Minor aortic valve insufficiency.
- Benign hepatopathy pattern- suggestive of vacuolar/cholestatic hepatopathy.
- Mild nonorganized gallbladder debris (non-mucocele).
- Age-related renal changes.
- Overtly normal adrenal glands.
- Mild pancreatic remodeling- age variant, benign remodeling owing to previous inflammation, possible concurrent low-grade pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is consistent with chronic degenerative changes with secondary primary mitral valve insufficiency and concurrent tricuspid valve insufficiency. The borderline to mild increased LA dimension indicates the current and future risk of complication is mildly elevated, yet overall, the left heart appears stable.

Given evidence of early to mild left chamber enlargement, Pimobendan 0.3 mg/kg PO BID is recommended. ACE inhibitor medication could be continued if evidence of hypertension (BP greater than 130). No indication for additional cardiac medication. Clinical monitoring with recheck echocardiogram suggested in 6 to 12 months, sooner if clinical signs arise. Assessment of system EBP for hypertension given minor aortic valve insufficiency is recommended.

Cardiac anesthetic risk is considered mild. If required, the following protocol is recommended with clinical monitoring. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.

Low-grade pancreatitis may be suspected if cranial abdomen/subxiphoid discomfort on palpation or if concurrent gastrointestinal signs. No evidence of adrenal pathology as a contributing factor in conjunction with lack of reported clinical signs which may suggest adrenal disease. Adrenal screening could be considered if clinical signs arise. Hepatosupportive medications and if clinically indicated, supportive care for chronic pancreatitis is recommended.

PATIENT

Riley Dey

SPECIES

Canine

BREED

Miniature Doberman

SEX

Neutered Male

AGE

12 Years

WEIGHT

12.6 lbs

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Dr. Ackmann

HOSPITAL NAME

Buffalo Veterinary Clinic

REFERRING VET

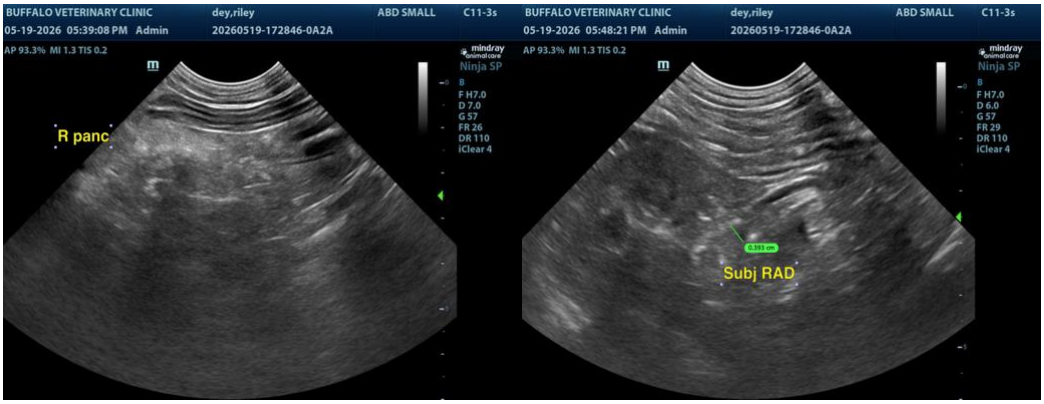
Garry Gotfredson, DVM

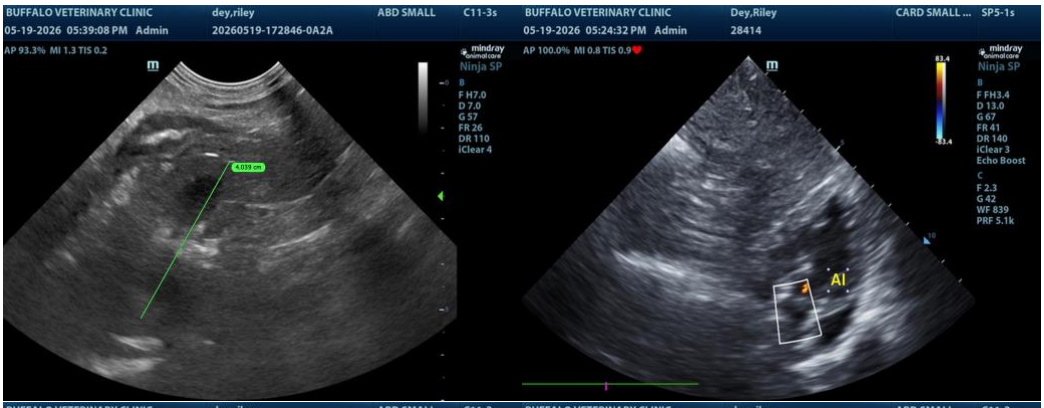
INVOICE

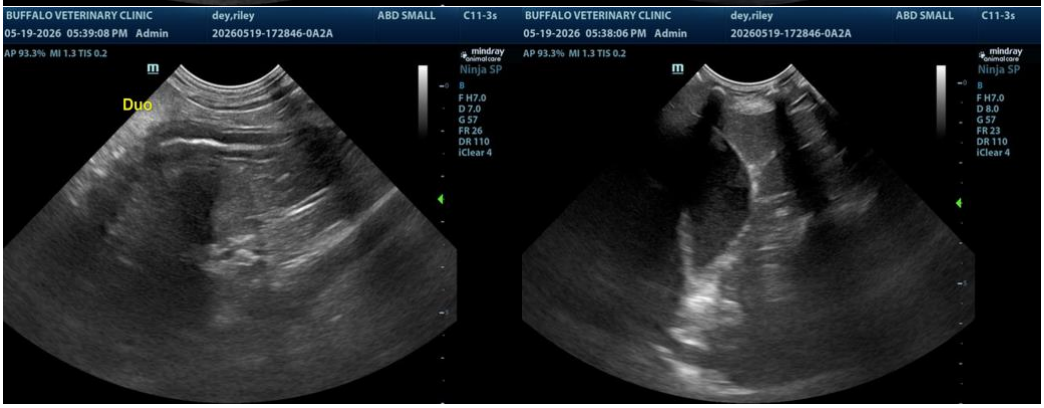
16367

DATE

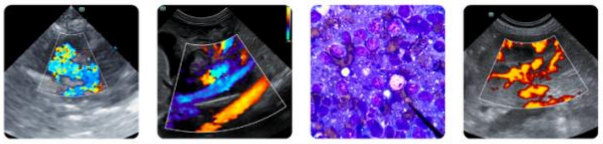
05/19/26







SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com | info@sonopath.com | 1.800.838.4268

PATIENT

Riley Dey

SPECIES

Canine

BREED

Miniature Doberman

SEX

Neutered Male

AGE

12 Years

WEIGHT

12.6 lbs

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Dr. Ackmann

HOSPITAL NAME

Buffalo Veterinary Clinic

REFERRING VET

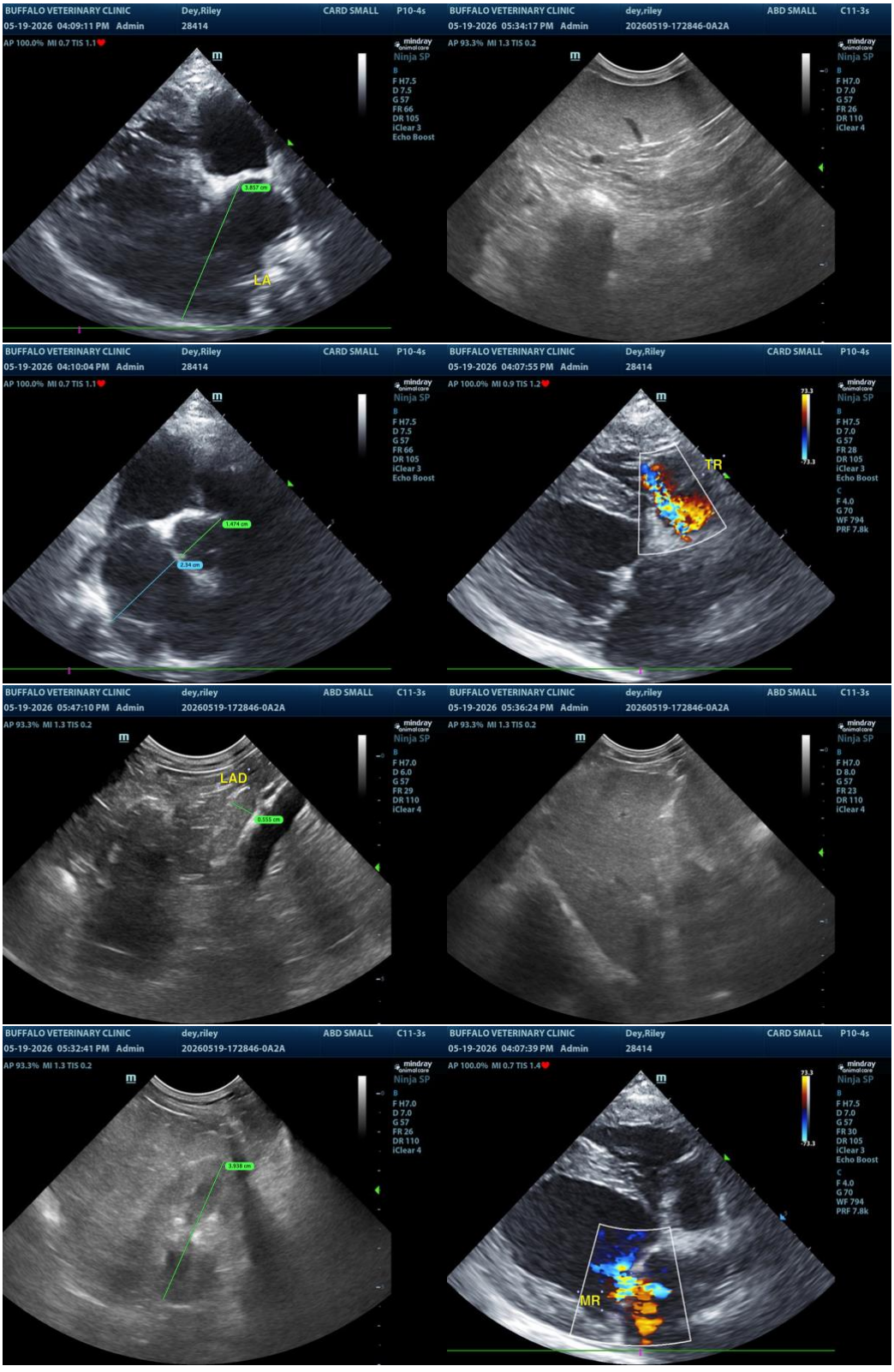
Garry Gotfredson, DVM

INVOICE

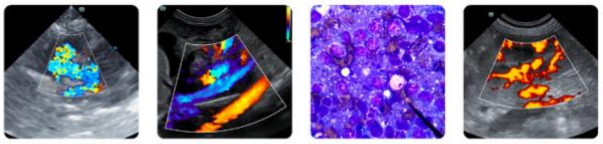
16367

DATE

05/19/26



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

PATIENT

Riley Dey

SPECIES

Canine

BREED

Miniature Doberman

SEX

Neutered Male

AGE

12 Years

WEIGHT

12.6 lbs

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Dr. Ackmann

HOSPITAL NAME

Buffalo Veterinary Clinic

REFERRING VET

Garry Gotfredson, DVM

INVOICE

16367

DATE

05/19/26

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