



PATIENT

Chase Bond

SPECIES

Canine

BREED

Minature Poodle

SEX

MN

AGE

7 years

WEIGHT

N/A

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Marsh Hospital for
Animals

REFERRING VET

Dr. Milwicki

INVOICE

13806

DATE

5/5/22

PRESENTING CLINICAL SIGNS

elevated ALT and ALKP since 1/2020; values . not on any meds.

Abnormal PE/Chem/CBC/UA Results: ALT 176, ALKP 5124, TP 7.5: UA: prot 1+, USPG 1.029

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
CARDIAC PARAMETERS	VMAX (m/s)	VMAX (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	5.7	2.5	1.6	1.5	40.5	73.5	0.2
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
CARDIAC PARAMETERS	(BPM)	VMAX (m/s)	MAX (m/s)	(kg)	2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	149	1.9	1.0		2.4	2.4	

Cardiac Presentation

The echocardiogram in this patient demonstrated minor enlarged **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were essentially normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable eccentric mitral valve insufficiency. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. 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. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated minor thickening with mild TR on doppler. 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 infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

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



PATIENT	sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.
Chase Bond	
SPECIES	The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.64 cm in diameter.
Canine	The area of the aortic trifurcation was free of pathology.
BREED	Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 3.8 cm in length. The right kidney measured 3.6 cm in length.
Minature Poodle	
SEX	
MN	
AGE	Adrenal Glands
7 years	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.0 cm length x 0.49 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 1.8 cm length x 0.64 cm width at the caudal pole.
WEIGHT	Spleen
N/A	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.
INTERPRETED BY	Liver/ Gallbladder
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The liver exhibited mild to moderate subjective enlargement. 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.
IMAGING PERFORMED BY	The gallbladder was non-distended in size. The gallbladder walls were sonographically normal without evidence of inflammatory criteria. The gallbladder contained anechoic content with moderate nondependent mildly congealed yet nonorganized luminal debris. The cystic and common bile ducts were normal.
Diane McFadden	
HOSPITAL NAME	Gastrointestinal
Marsh Hospital for Animals	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.
REFERRING VET	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.
Dr. Milwicki	Normal visible colon wall layers were present with apparent formed feces in lumen.
INVOICE	
13806	
DATE	
5/5/22	



PATIENT

Pancreas

Chase Bond

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 were evident.

SPECIES

Canine

Free Abdomen

BREED

No overt lymphadenopathy or peritoneal effusion was present.

Minature Poodle

ULTRASONOGRAPHIC FINDINGS

SEX

- Compensated mild mitral valve disease (ACVIM B1)

MN

- Mild TR - Estimated pulmonary pressure gradient (Approximately 25 mm Hg) not consistent with clinical pulmonary hypertension

AGE

7 years

- Benign hepatopathy
- Moderate congealed gallbladder debris (non-mucocele)

WEIGHT

N/A

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

INTERPRETED BY

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

The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency with minor concurrent tricuspid valve insufficiency. The lack of left atrial enlargement implies that the risk of complications secondary to mitral valve insufficiency is low at this time and, without current clinical signs, indicates that medical therapy is not required. No other clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension were noted. Conservative monitoring is recommended with a recheck echocardiogram in 6-12 months, sooner if clinical signs suggestive of heart disease develop.

IMAGING PERFORMED BY

Diane McFadden

Although nonspecific, the liver was consistent with benign hepatopathy / hepatomegaly with potential considerations including vacuolar hepatopathy and nonobstructive cholestasis, given the significant ALP elevation with potential primary or concurrent Inflammatory hepatic disease, given the ALT elevation.

HOSPITAL NAME

Marsh Hospital for
Animals

Underlying adrenal hyper functionality is considered unlikely, given the adrenal presentation and lack of reported clinical signs. Leptospirosis titers / PCR could be considered if clinically indicated.

REFERRING VET

Dr. Milwicki

Ultrasound-guided FNA of the liver for screening cytology, primarily to assess for evidence of Inflammatory cells, and assuming normal clotting status, would be warranted. Hepatosupportive medications including Denamarin and Ursodiol with serial monitoring of hepatic enzymes are suggested.

INVOICE

13806

DATE

5/5/22



PATIENT

Chase Bond

SPECIES

Canine

BREED

Minature Poodle

SEX

MN

AGE

7 years

WEIGHT

N/A

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Marsh Hospital for
Animals

REFERRING VET

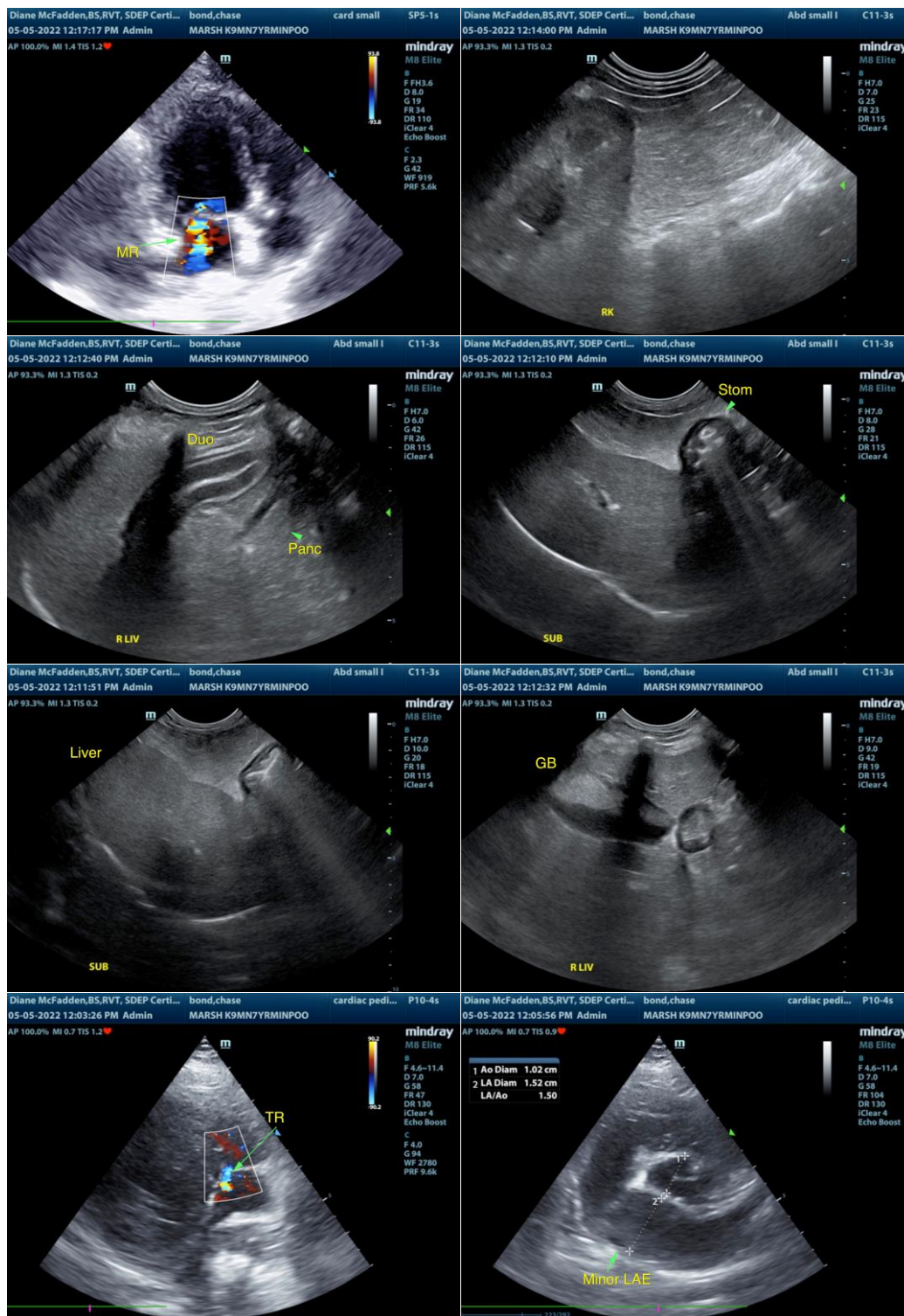
Dr. Milwicki

INVOICE

13806

DATE

5/5/22





PATIENT

Chase Bond

SPECIES

Canine

BREED

Minature Poodle

SEX

MN

AGE

7 years

WEIGHT

N/A

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Marsh Hospital for
Animals

REFERRING VET

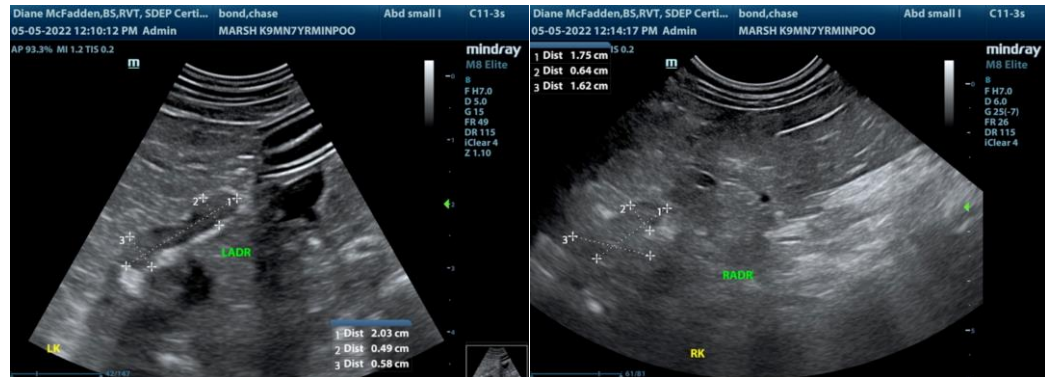
Dr. Milwicki

INVOICE

13806

DATE

5/5/22



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.

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