



PATIENT PRESENTING CLINICAL SIGNS

Zoe Lasla GRADE 5-6/6 HEART MURMUR ABDOMEN DISTENDED, CANNOT PALPATE GENERALIZED MUSCLE LOSS, SEVERELY THICKENED STIFLES BILATERAL. HR:140 RR:40. Enalapril/Vetmedin/Furosemide.

Abnormal PE/Chem/CBC/UA Results: n rads heart is very large, compressing main bronchus, does not appear to have pleural effusion or pulmonary edema currently, abdomen shows very enlarged liver though not fully defined, wispy suspected fluid but also seems to have mass effect,

BREED ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

Maltese X

SEX

FS

AGE

11 years

WEIGHT

9.4 kg

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Beatties PH Stoney
Creek

REFERRING VET

Dr. Baskin

INVOICE

13645

DATE

4/13/22

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	5.0	1.7		2.8	36.3	66.2	0.37
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	132	1.8	1.1		5.7	3.8	

Cardiac Presentation

The echocardiogram in this patient demonstrated severely enlarged **left atrial** size based on 3 different LA measurement methods. Significant deviation of the interatrial septum towards the right atrium consistent with elevated left atrial pressure was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis with prolapse of the anterior leaflet. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with significantly increased left ventricle volume. 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 evidence of significant right atrial enlargement. **Tricuspid** valvular assessment demonstrated concurrent vegetative thickening with prolapse of the septal leaflet. 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** free fluid was noted. Potential for very minor free



PATIENT

Zoe Lasla

pleural fluid is possible. 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

SPECIES

Canine

The urinary bladder, trigone, and cystourethral junction 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 was noted.

BREED

Maltese X

The area of the aortic trifurcation was free of pathology.

SEX

FS

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 4.3 cm in length. The right kidney measured 4.6 cm in length.

AGE

11 years

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.64 cm width at the caudal pole and 0.59 cm width at the cranial pole. No overt pathology was noted in the area of the right adrenal gland.

WEIGHT

9.4 kg

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.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

IMAGING

PERFORMED BY

Crystal Hill

Liver/ Gallbladder

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. The hepatic vasculature was dilated in appearance, most notable at the level of the hepatic vein / caudal vena cava junction, without evidence of thrombosis. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

HOSPITAL NAME

Beatties PH Stoney
Creek

REFERRING VET

Dr. Baskin

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.

INVOICE

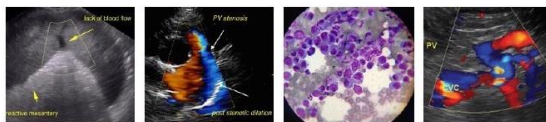
13645

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.

DATE

4/13/22

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


PATIENT
Pancreas

Zoe Lasla

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

Moderate volume primarily anechoic ascites was present. Generalized mild reactive mesentery was noted. No evidence of lymphadenopathy or omental masses was evident.

BREED

Maltese X

ULTRASONOGRAPHIC FINDINGS
SEX

FS

- Chronic mitral valve disease with severe LA enlargement
- MV/TV prolapse
- TV Insufficiency
- Congestive hepatomegaly
- Moderate volume ascites

AGE

11 years

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
WEIGHT

9.4 kg

The echocardiogram was consistent with chronic degenerative valvular changes with secondary mitral valve and tricuspid valve insufficiency. The severe LA enlargement indicates that the current risk of complication secondary to left-sided volume overload is significantly elevated. Although the right atrium and right ventricle were not overtly enlarged, the left heart volume overload predisposes to increased pulmonary pressure and potential for pulmonary hypertension which although not overtly consistent with measured TR velocity cannot be definitively excluded. Going forward, this patient is at elevated risk for continued episodes of left and right heart failure, potential development of malignant arrhythmias, and possible sudden death.

INTERPRETED BY

 R. McKenzie Daniel,
 DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

 Beatties PH Stoney
 Creek

REFERRING VET

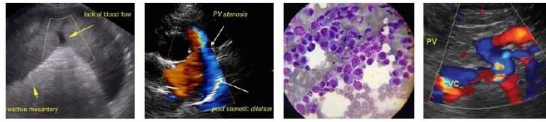
Dr. Baskin

INVOICE

13645

DATE

4/13/22



PATIENT

Zoe Lasla

SPECIES

Canine

BREED

Maltese X

SEX

FS

AGE

11 years

WEIGHT

9.4 kg

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Beatties PH Stoney
Creek

REFERRING VET

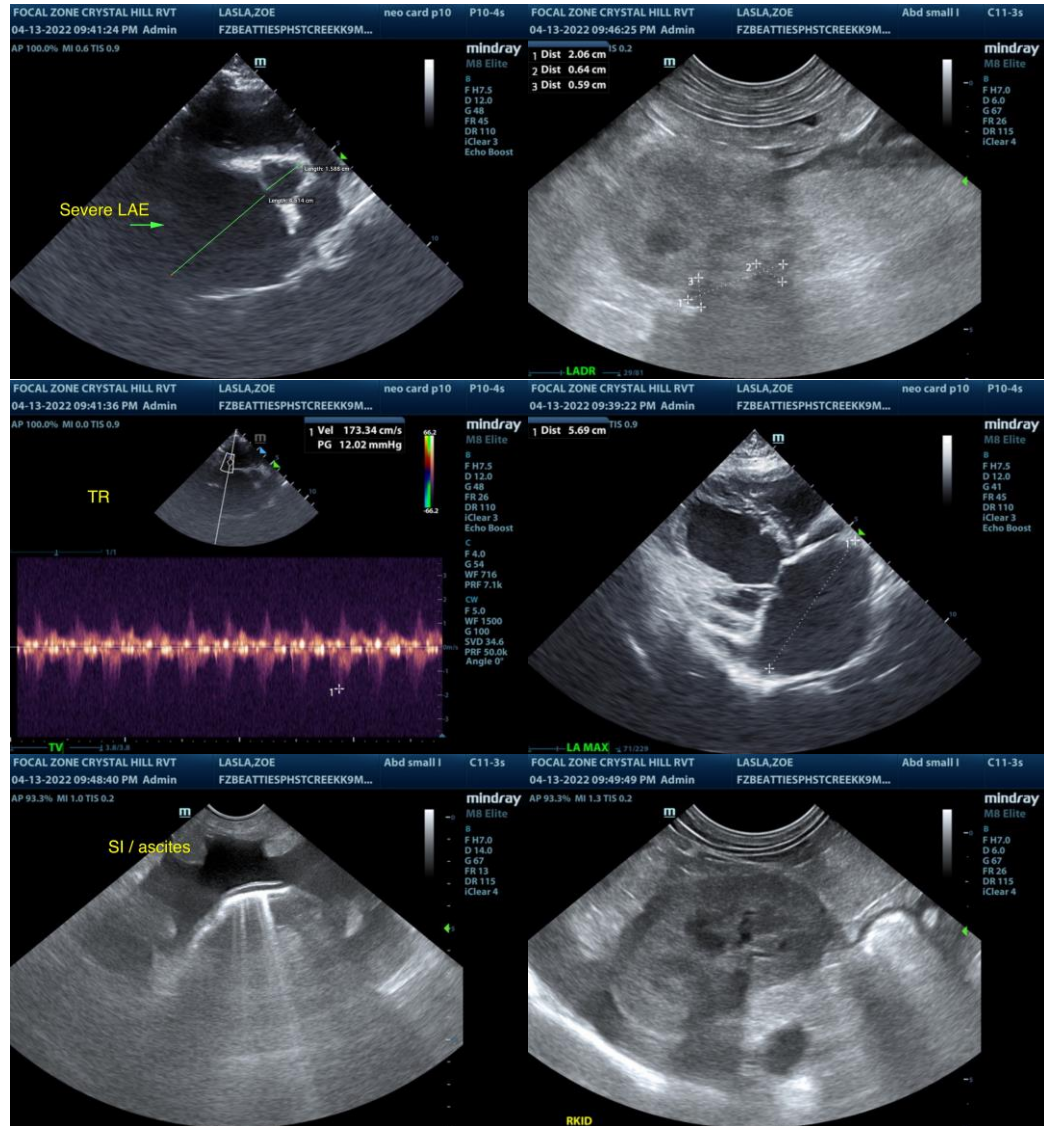
Dr. Baskin

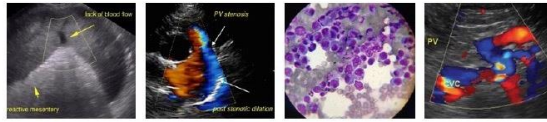
INVOICE

13645

DATE

4/13/22





PATIENT

Zoe Lasla

SPECIES

Canine

BREED

Maltese X

SEX

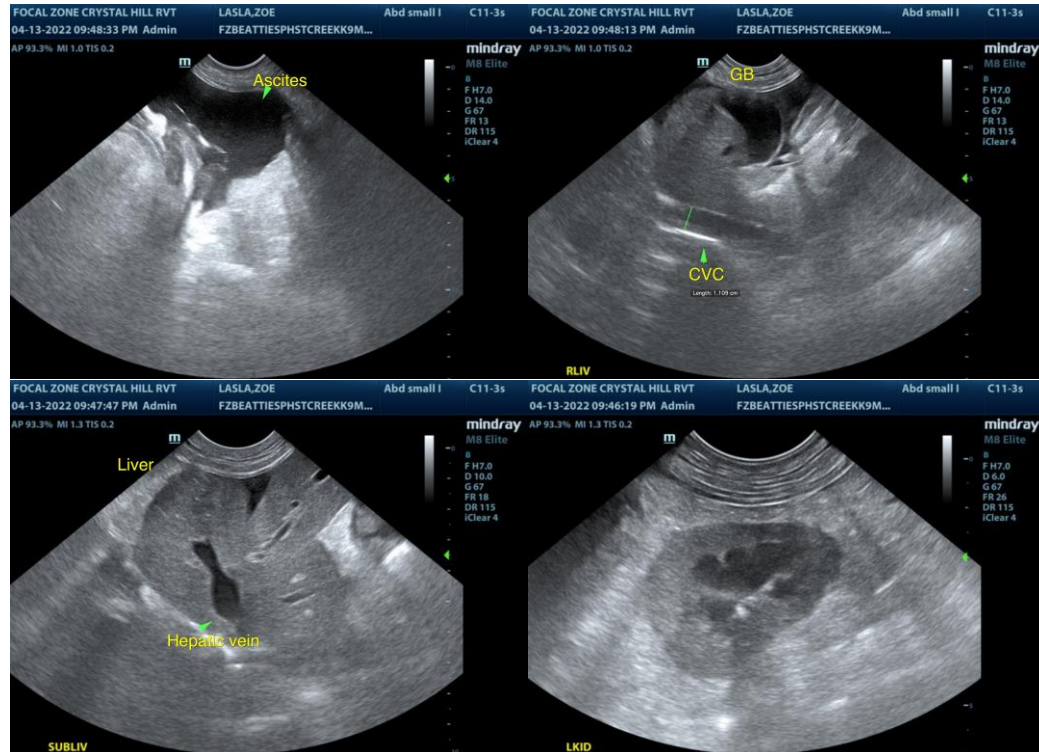
FS

AGE

11 years

WEIGHT

9.4 kg



INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Beatties PH Stoney
Creek

REFERRING VET

Dr. Baskin

INVOICE

13645

DATE

4/13/22

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