



PATIENT PRESENTING CLINICAL SIGNS

Ruby Urday Recheck echo, doing great at home. Current meds: Lasix & Pimobendan.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Pomeranian

SEX

Spayed Female

AGE

11 Years

WEIGHT

10.3 Pounds

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	<1.6	28-40	40-100	<0.6
PATIENT			1.9	2.0	62	96	0.2
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	182	1.0	0.8		3.5	2.7	

Cardiac Presentation

The echocardiogram for this patient presented moderately excessive **left atrial size** expressed both in the LA/AO and LA max measurements. Minor deviation of the intraatrial septum towards the right atrium was noted, indicative of mild elevated left atrial pressure. The cranial and caudal **mitral valve** leaflets presented vegetative thickening consistent with endocardiosis with mild prolapse of the septal mitral valve leaflet. Doppler indicated measurable eccentric insufficiency. No evidence of chordae tendineae rupture. The **left ventricle** presented normal thicknesses with linear contour with minor increased left ventricular volume. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate to mildly increased, 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 adequate linear morphology. Minor tricuspid insufficiency present on color 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.

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Vet Hospital

REFERRING VET

Dr. Wyman-Greenwald

INVOICE

26357

DATE

10/19/21

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2) with minor mitral valve septal leaflet prolapse – essentially static compared to the previous echo with minor progressive left atrial enlargement.
- Tricuspid valve insufficiency – estimated pulmonary pressure gradient suggestive of mild increased pulmonary pressure, yet not consistent with clinical pulmonary hypertension.



PATIENT

Ruby Urday

SPECIES

Canine

BREED

Pomeranian

SEX

Spayed Female

AGE

11 Years

WEIGHT

10.3 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Vet Hospital

REFERRING VET

Dr. Wyman-Greenwald

INVOICE

26357

DATE

10/19/21

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Continued current protocol including Pimobendan at lowest effective dose of diuretic warranted. Recommend continued monitoring for evidence of clinical signs associated with mitral valve insufficiency such as elevated resting respiration rate, exercise intolerance, etc. Recheck echocardiogram suggested in 3 months, sooner if clinical signs consistent with heart disease are noted. Screening blood pressure may be considered.



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 can be of any further assistance please contact me.

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