



PATIENT PRESENTING CLINICAL SIGNS

Sid Collins History: coughing on and off for a long time, this morning had a coughing/hacking episode where P fell over, was still conscious as per O but not aware. Previously P yawned and then fell over and went limp. O states has a history of a heart murmur but never worked up. P was seen on May 2021 where we diagnosed a heart murmur 5/6, but O declined work up/diagnostics and medications.

Canine Abnormal PE/Chem/CBC/UA Results: HR 112, RR 22

BREED ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Chihuahua X

SEX

Neutered Male

AGE

11 Years

WEIGHT

6.7 kg

INTERPRETED BY

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

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	5.6	3.1	NM	2.0	50.3	82.4	0.25
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	BELOW	BELOW	BELOW	BELOW
PATIENT	180	1.2	1.1	--	4.1	3.9	--

Cardiac Presentation

The echocardiogram for this patient presented moderate excessive **left atrial size** expressed both in the LA/AO and LA max measurements. Mild deviation of the intra-atrial towards the right atrium suggestive of some degree of elevated left atrial pressure was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Mild prolapse of the septal leaflet was present. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with 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 chamber overload. **Tricuspid** valvular assessment demonstrated concurrent vegetative thickening with mild insufficiency on color doppler assessment. 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. No evidence of arrhythmogenic disease.

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Beattie PH Stoney Creek

REFERRING VET

Dr. Salib

INVOICE

13394

DATE

1/12/22



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ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B-2, possible emerging stage C)
- Mild TR- estimated pulmonary pressure gradient (approximately 36-40 mm of mercury) consistent with mild elevated pulmonary pressures/mild pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is secondary to chronic degenerative valvular changes and eccentric mitral valve insufficiency. The moderate left atrial enlargement indicates that the risk of future complication is elevated. Concurrent mild pulmonary hypertension is present, yet the estimated pressure gradient is questionable for clinical signs associated with pulmonary hypertension. Pimobendan at 0.3 mg per kg PO BID along with (if evidence of cardiogenic pulmonary edema) lowest effective dose of diuretic would be appropriate. Hydrocodone may also prove beneficial given the potential for main stem bronchi irritation or compression owing to LA enlargement. ECG assessment suggested to assess for nonobvious arrhythmia. Assessment of systemic blood pressure recommended, if BP > 130, ace-inhibitor medication may also be considered. Baseline monitoring of resting respiration rate is advised. Recheck echocardiogram suggested in 4-6 months or sooner if continued clinical signs of left sided heart disease or if continued possible syncopal episodes are noted.





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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.

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