



PATIENT PRESENTING CLINICAL SIGNS

Penny Mazzacano History: Cardiac Disease. Current meds: Pimobendan, furosemide, enalapril, spironolactone

SPECIES Abnormal PE/Chem/CBC/UA Results:

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED	CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
Beagle								
SEX	NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
Spayed Female	PATIENT	4.0	<2.0	NM	2.2	42.0	76	0.25
AGE	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)
NA								
WEIGHT	NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
NA	PATIENT	149	<2.0	<2.0	--	4.3	3.42	--

INTERPRETED BY Cardiac Presentation

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Fletcher/Dr. Verhalen

INVOICE

13689

DATE

10/12/21

The echocardiogram for this patient presented excessive **left atrial size** expressed both in the LA/AO and LA max measurements. The left atrium enlargement exhibited horizontal component exhibited by marked deviation of the intra-atrial septum towards the right atrium consistent with elevated left atrial pressure. The cranial and caudal **mitral** valve leaflets presented significant vegetative thickening consistent with endocardiosis with lack of normal valvular coaptation. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with significant 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 adequate linear morphology. Color doppler assessment revealed concurrent tricuspid valve insufficiency. 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.

ULTRASONOGRAPHIC FINDINGS



PATIENT

Penny Mazzacano

- Chronic mitral valve disease (ACVIM Stage C-D)
- Lack of mitral valve leaflet coaptation, no chordae tendineae rupture
- Severe left atrium enlargement with horizontal component

SPECIES

Canine

BREED

Beagle

SEX

Spayed Female

AGE

NA

WEIGHT

NA

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram is consistent with progressive to advanced chronic mitral valve disease with significant left heart volume overload despite current medical therapy. TID Pimobendan dosing recommended while depending on current dose of furosemide, potential increase and diuretic dose with continued furosemide/spironolactone combination is warranted. Assessment of systemic blood pressure is suggested. If blood pressure is <130, discontinuation of Ace-inhibitor is suggested. The presentation of the heart may indicate end-stage cardiac disease while even if response to altered cardiac medication protocol, this patient will be a continued risk for CHF. No other clinical issues such as systolic dysfunction or overt clinical pulmonary hypertension was noted. However, some degree of elevated pulmonary pressure owing to left heart volume overload is suspected. Depending on clinical response, recheck echocardiogram suggested in 3 months or sooner if continued evidence of CHF persists. Very guarded prognosis.





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Canine

BREED

Beagle

SEX

Spayed Female

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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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