


PATIENT

Zach DiCireto

PRESENTING CLINICAL SIGNS

Elevated ProBNP, grade 3/6 holo PMI 567 retracted, grade 1 block on ECG.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART
BREED

Pomeranian Mix

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	<1.3	28-40	40-100	<0.6
PATIENT	5.1	2.5		2.2	16	34	0.41
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		1.0	0.75		3.8	3.4	

SEX

MN

AGE

10yr

WEIGHT

15.8lb

Cardiac Presentation

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. Mild deviation of the interatrial septum towards the right atrium suggestive of increased left atrial pressure was noted. The cranial and caudal mitral valve leaflets presented mild to moderate thickening consistent with endocardiosis. No evidence of prolapse or chord tendineae rupture. Doppler indicated measurable moderate 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 subnormal as 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. Normal LVOT velocity was present. The right atrium and auricle revealed mild increased size and normal content. No evidence of masses was noted or chamber overload. Tricuspid valvular assessment demonstrated concurrent mild thickening with mild to moderate TR on Doppler. The right ventricle exhibiting mild enlargement compared to the left ventricle. Pulmonic tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). Normal to mildly depressed RVOT velocity was present. 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. Consistent tachyarrhythmia was present.

Brief sonographic assessment of the cranial abdomen revealed evidence of cranial abdominal ascites.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

 Westwood Regional
 Veterinary Hospital

REFERRING VET

Dr. Cattiny

INVOICE

12087ag

DATE

11/02/2022

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2-C)
- Consistent tachyarrhythmia with decreased LV contractility
- TR-estimated pulmonary pressure gradient ~ 25 mmHg, not consistent with overt clinical pulmonary hypertension



PATIENT

- Cranial abdominal ascites

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

SPECIES

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This study is consistent with advanced chronic valvular disease with secondary moderate left heart dilation and potential for atrial fibrillation given the tachyarrhythmia. While the structural disease predisposes to left sided congestion, the rapid arrhythmia predisposed to right sided congestion as evidenced by suspected secondary cranial abdominal ascites.

BREED

Pomeranian Mix

Hospitalization with IV diuretic rate-controlled therapy pending ECG analysis for further clarification. Pimobendan 0.3 mg/kg PO BID, furosemide/spironolactone combination 1-2 mg/kg PO BID once stabilized and as needed oxygen therapy is suggested. Monitoring of heart rate, systemic BP and renal parameters is suggested.

SEX

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A very guarded long term guarded prognosis as this patient is at significantly increased risk for development of persistent to malignant arrhythmias and/or sudden death. Recheck echocardiogram suggested in 10-14 days, sooner if persistent evidence of CHF or progressive arrhythmia.

AGE

10yr

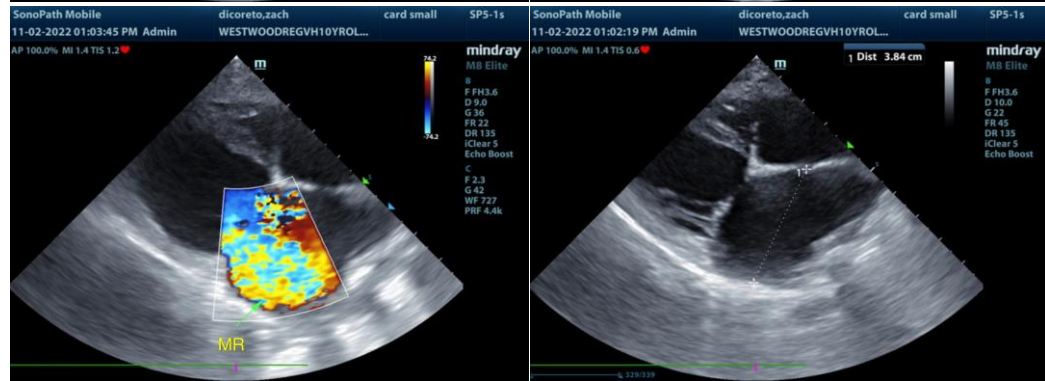
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

SPECIES

Canine

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)

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info@SonoPath.com

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