


PATIENT

Barkley Fasso

SPECIES

Canine

BREED

Chihuahua

SEX

MN

AGE

11yr

WEIGHT

6.9kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Stegemoller

HOSPITAL NAME

 North Idaho Animal
 Hospital

REFERRING VET

Dr. Stegemoller

INVOICE

12088ag

DATE

11/01/2022

PRESENTING CLINICAL SIGNS

Presented 10/21 for coughing. Owner declined imaging so treated supportively. After taking radiographs and starting on treatment for tracheobronchitis, patient is still not improving.

Abnormal PE/Chem/CBC/UA Results: CBC - unremarkable Heart murmur grade 4/6 left systolic. BP - hypertensive, 160/120, tachycardic - HR 200 Slightly increased abdominal respiratory effort. See attached radiograph report and ECG report. Started on enalapril, pimobendan, and furosemide after getting radiograph report back.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	5.0	1.0		2.5	35.3	70	0.3
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	NM	1.7	0.8		4.0	3.4	

Cardiac Presentation

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. 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 moderate thickening consistent with moderate endocardiosis more prominent in the septal leaflet. Doppler indicated measurable moderate eccentric insufficiency. The left ventricle presented thicknesses with linear contour and 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 thickening with mild TR on 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.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2-C)



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- Mild TR- estimated pulmonary pressure gradient not consistent with overt clinical pulmonary hypertension

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

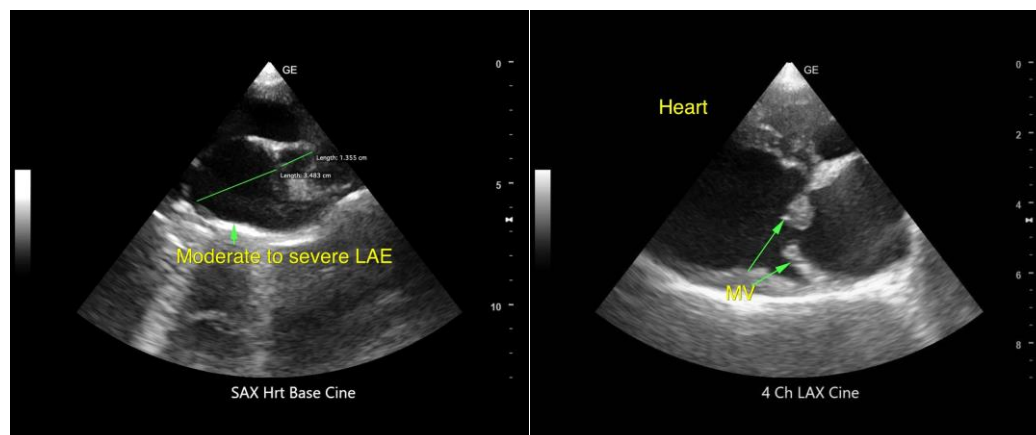
The cause of the murmur is consistent with chronic degenerative valvular changes with secondary eccentric mitral valve and mild tricuspid valve insufficiency. The moderate LA enlargement as well as generalized increased left heart volume indicate that the risk of complication is moderately elevated if no current signs of pulmonary edema. The coughing in this patient may be multifactorial with some contribution potentially owing to mainstem bronchi or irritation secondary to LA enlargement. Medical therapy recommended in the radiograph and ECG report is warranted with monitoring of systemic BP and renal parameters going forward. Additionally, antitussive medication such as hydrocodone may prove beneficial. Prognosis at his stage is highly variable and serial sonographic monitoring is recommended. A recheck echocardiogram suggested in 6 months, sooner if persistent or progressive clinical signs consistent with CHF or clinical pulmonary hypertension are noted.

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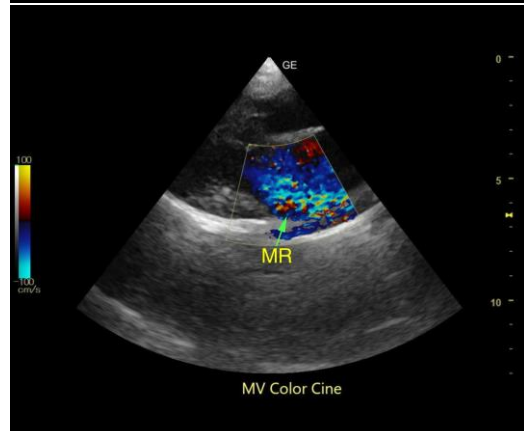
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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