



PATIENT PRESENTING CLINICAL SIGNS

Liebschen Perry

History: Chronic cough, some tracheoplasty. No murmur auscultated. Some improvement in cough using Cerenia.

SPECIES

Abnormal PE/Chem/CBC/UA Results: Rads (attached): Heart enlargement on lateral, globoid look on VD. VHS 11.8. Trachea elevated at carina.

Canine

BREED

Chihuahua Mix

SEX

Neutered male

AGE

14 years

WEIGHT

12.8 lbs

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated enlarged **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. The **left ventricle** revealed volume overload with compensatory hypercontractility. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** revealed volume overload. **Tricuspid** insufficiency was noted and measured 3.4 m/sec. This is consistent with early pulmonary hypertension. 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. Minor hilar edema pattern noted. Slight hepatic vein dilation was noted owing to pulmonary hypertension.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Ebersole

HOSPITAL NAME

Scanvet

REFERRING VET

Dr. Barengo

INVOICE

42258

DATE

12/20/22

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	5.55	3.4	1.94	2.47	54	86	0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	132	1.9	0.6	12.8 lbs	4.2	3.58	



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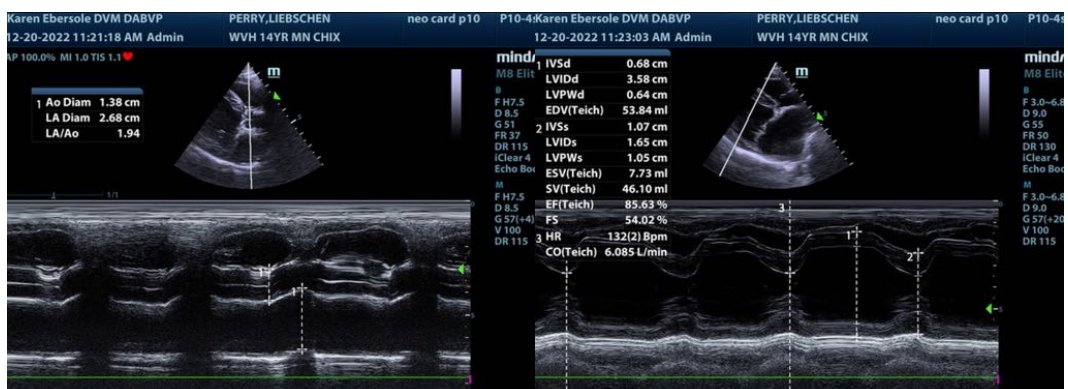
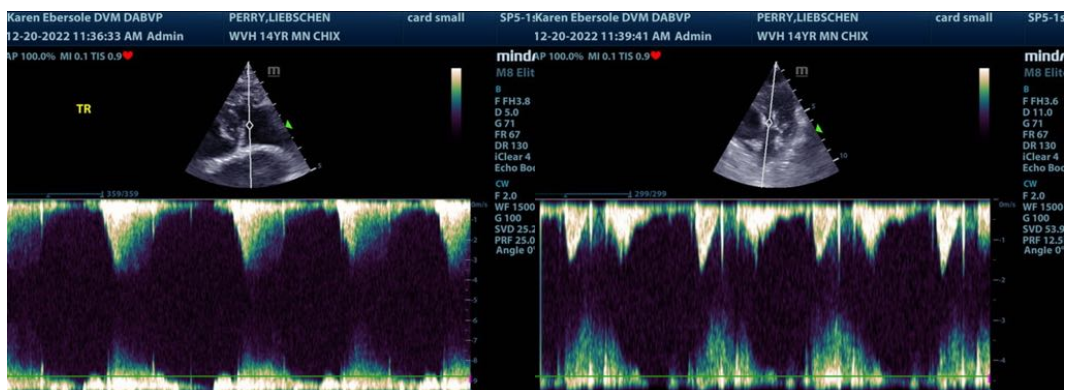
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ULTRASONOGRAPHIC FINDINGS

Stage C1 valvular disease with mitral and tricuspid insufficiency. Volume overload in the left and right atria and left ventricle.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend quadrotherapy in this patient with Lasix at 1-2 mg/kg b.i.d., Spironolactone at 1-2 mg/kg b.i.d. and ace inhibitor at 0.5 mg/kg s.i.d. progressing to b.i.d. and Pimobendan at 0.3 mg/kg b.i.d. A recheck echocardiogram is recommended in a month. The cough is cardiogenic in this patient. However, based on radiographic findings concurrent bronchial disease is likely. However, there was significant volume overload in the left atrium and left ventricle.





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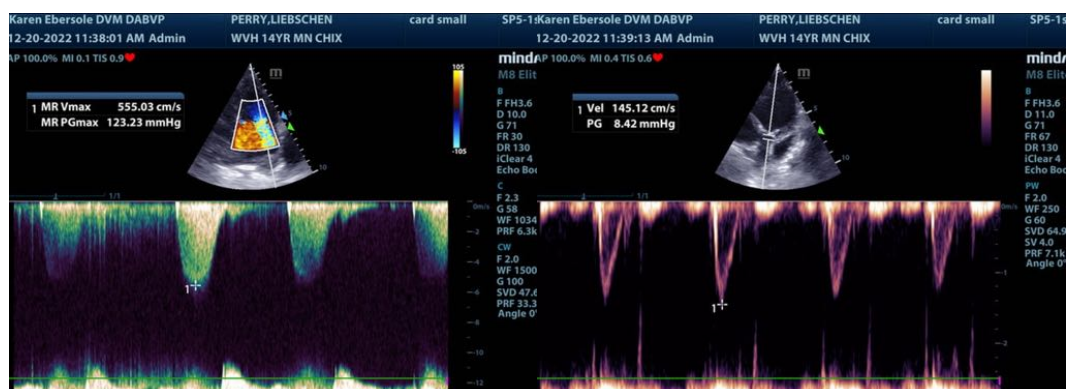
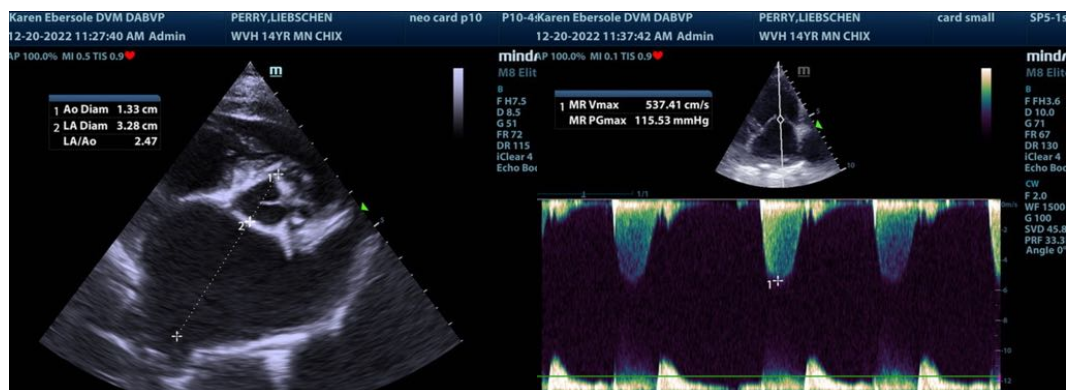
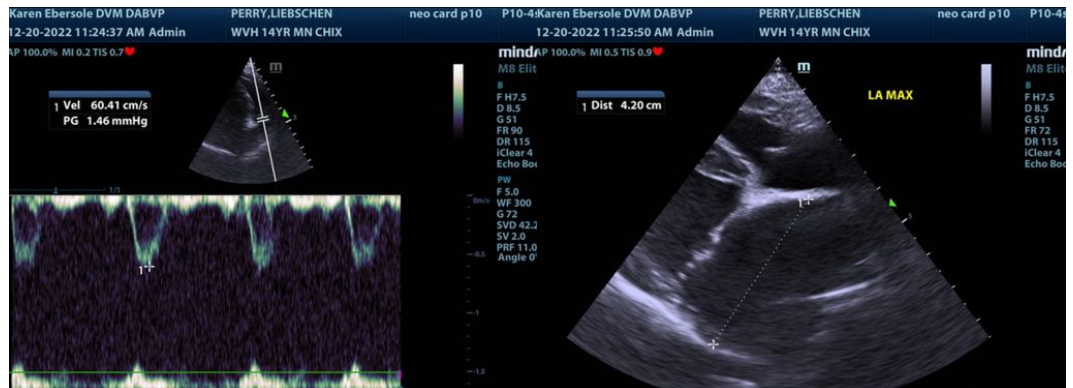
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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