



PATIENT PRESENTING CLINICAL SIGNS

Joga Trenbeath

History: In April 2019, had cardiac work up and was diagnosed with mitral valve regurgitation with valve prolapse and aortic regurgitation. He was started on enalapril and pimobendan. Owner reports has been gagging since starting heart medications. Presented 9/20/21 for evaluation of worsening cough. Thoracic radiographs are included for interpretation from 9/20. Patient was also hypertensive. Was started on furosemide and coughing improved.

SPECIES

Canine

BREED

Maltese

Abnormal PE/Chem/CBC/UA Results: Historical heart murmur of 3-4/6, but just prior to echo, no murmur audible. April 2021 normal CBC/Chem.

Radiographs revealed chronic respiratory changes, mild right cranial cardiac enlargement and uniform hepatomegaly.

SEX

Neutered Male

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

AGE

12 Years

WEIGHT

4.5 kg

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	--	--	1.2	1.5	35	--	0.1
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	--	--	--	--	2.84	2.5	--

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jolee Stegemoller,
DVM

HOSPITAL NAME

Northern Idaho AH

REFERRING VET

Dawn Mehra, DVM

INVOICE

13261

DATE

9/24/21

Cardiac Presentation

The left atrium is the upper limits of normal in the LA max measurement, however, completely normal in all other measurements. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Colorflow doppler indicated measurable insufficiency. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. 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. Minor **aortic** insufficiency also noted on color flow assessment. 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. 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.



PATIENT

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ULTRASONOGRAPHIC FINDINGS

SPECIES

Canine

- Mitral and aortic insufficiency
- Stable valvular disease, compensated

BREED

Maltese

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Blood pressure measurements warranted. Continuation of the current protocol warranted. I do not believe the cough is cardiogenic in this patient. Primary respiratory protocol recommended, unless the lateral chest radiographs reveal left atrial impingement on the mainstem bronchus given the left atrial size and the LA max appears to be upper limits of normal, however, is unlikely to be causing the primary cough.

SEX

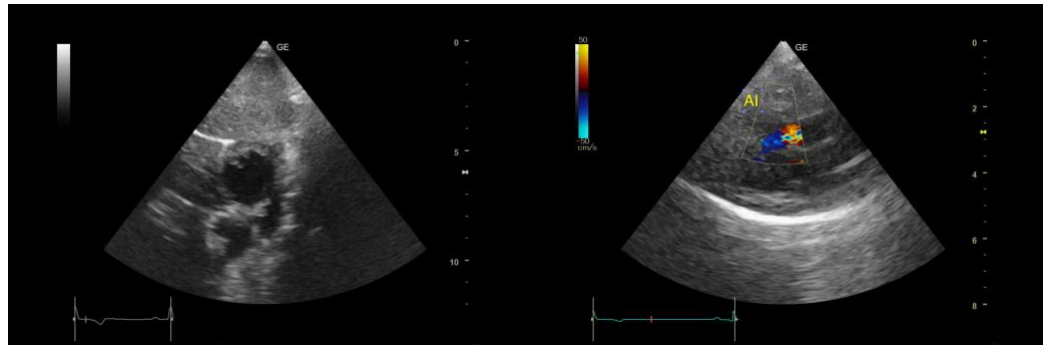
Neutered Male

AGE

12 Years

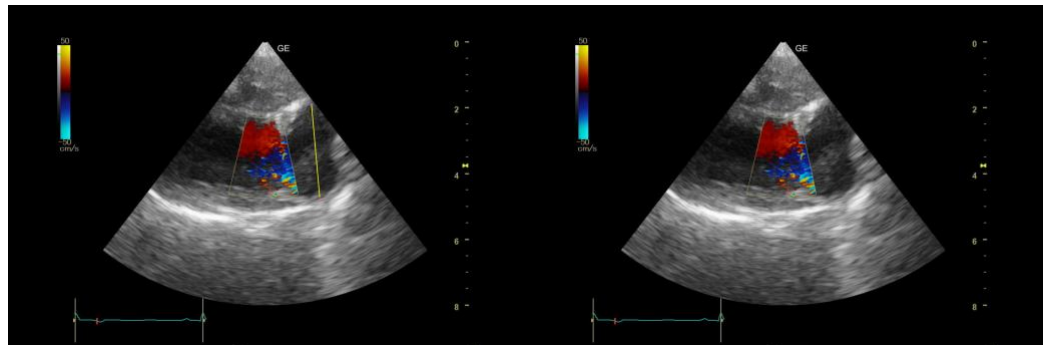
WEIGHT

4.5 kg



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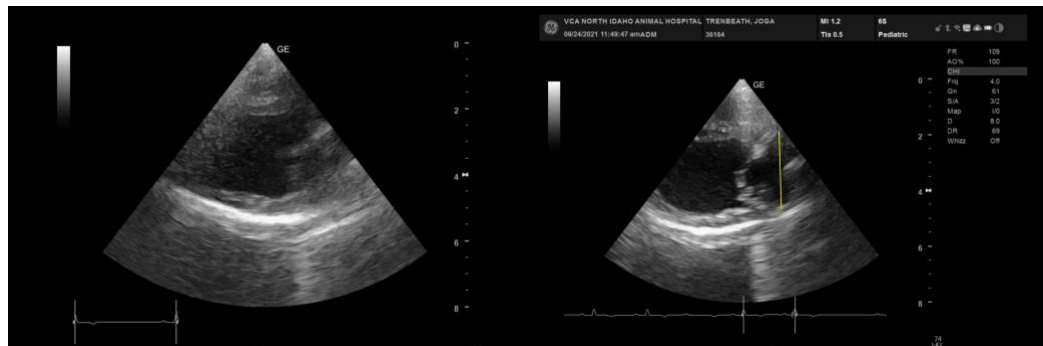


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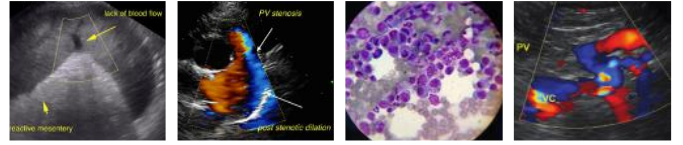
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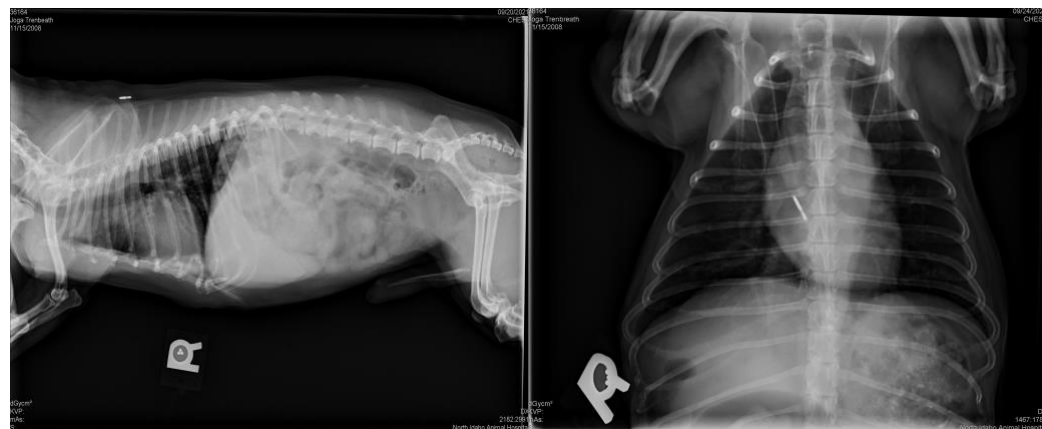
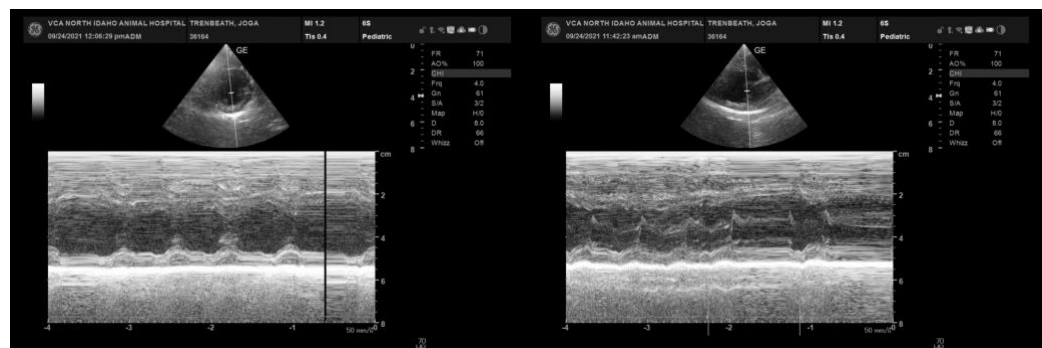
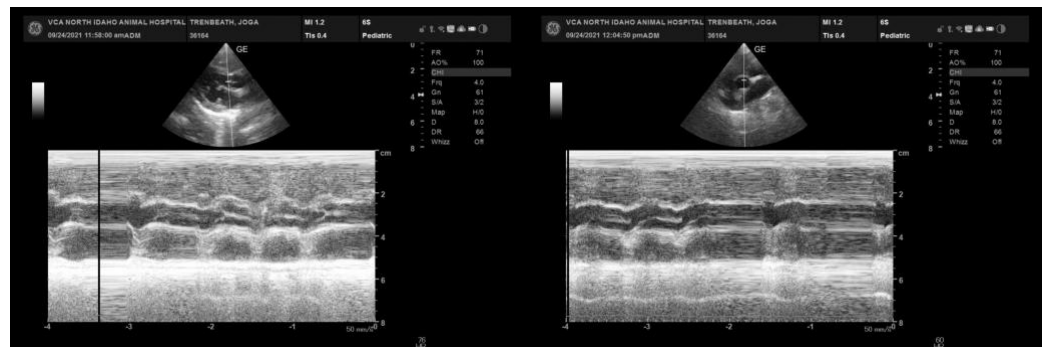
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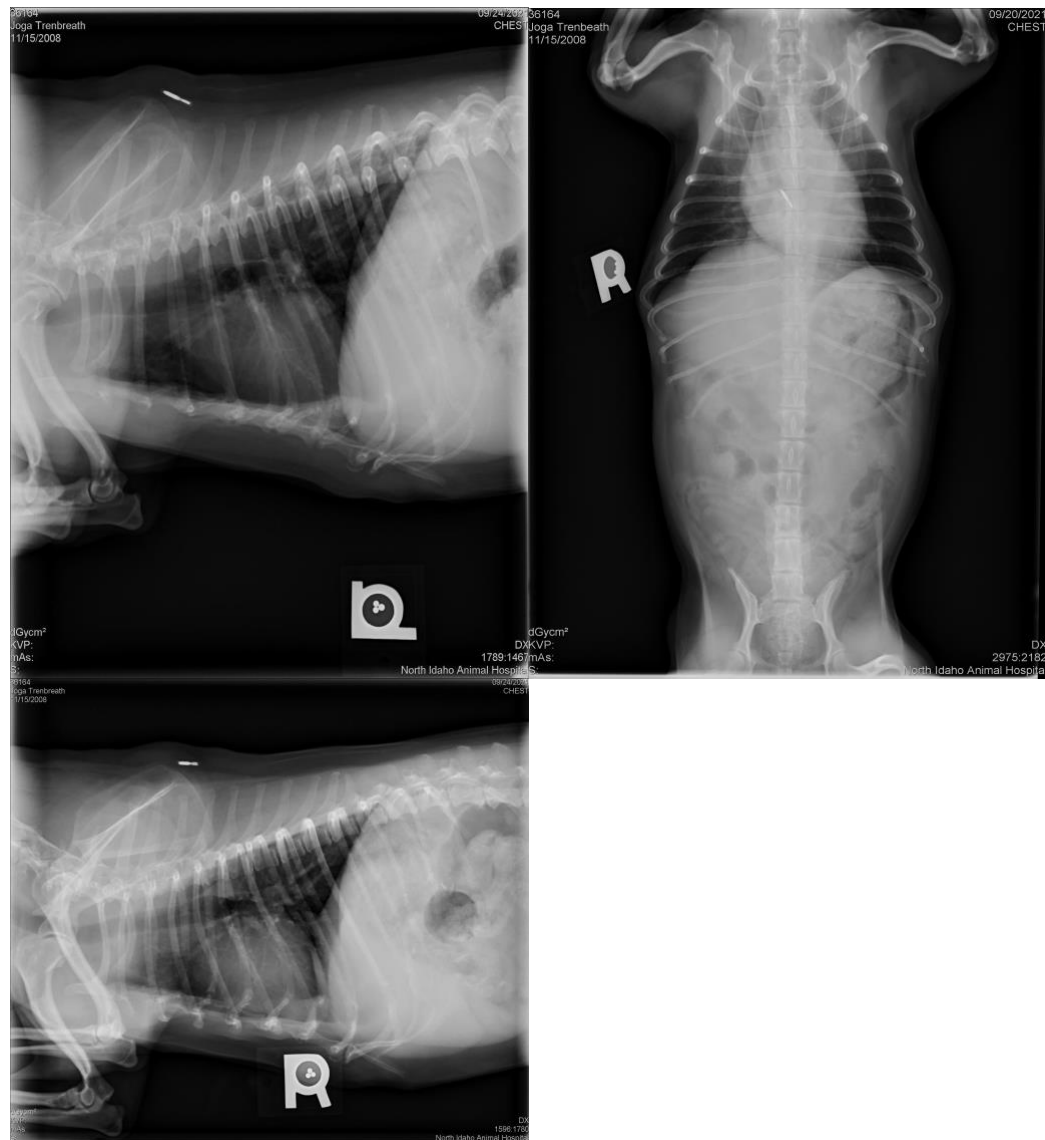
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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