



PATIENT PRESENTING CLINICAL SIGNS

Cody Surroz Coughing, overweight, murmur 3/6 Radiographic Findings Cardiomegaly, bronchial and interstitial patterns
Abnormal PE/Chem/CBC/UA Results: Alkp 289

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Border Collie X

SEX

Neutered Male

AGE

14 Years

WEIGHT

42.5 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

VCA Vitality AH

REFERRING VET

Dr. Surroz

INVOICE

40117

DATE

8/3/22

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	6.65		1.3	1.5	38	69	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	BELOW	BELOW	BELOW	BELOW
PATIENT	103	1.0	0.87		4.04	4.09	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **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** 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. 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** insufficiency noted at 3.8 m/sec, consistent with 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. Hepatic veins were slightly dilated.

ULTRASONOGRAPHIC FINDINGS

- Stage B1 valvular disease with early pulmonary hypertension, compensated at this time
- Slight dilated hepatic veins



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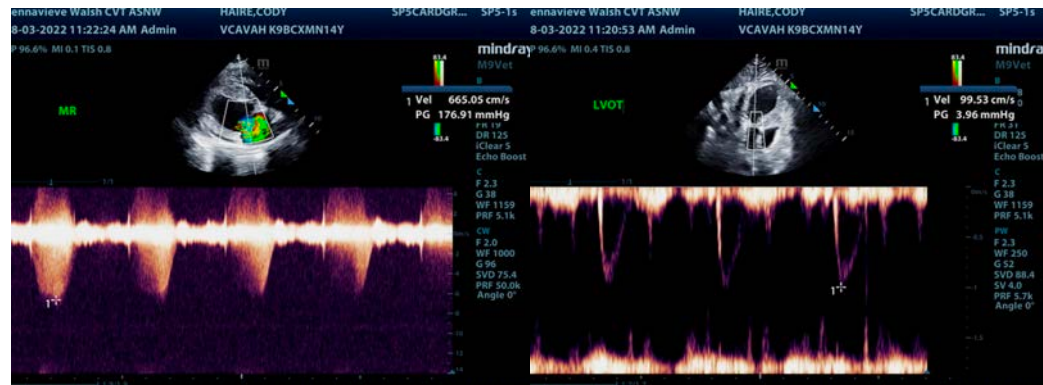
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Blood pressure measurements recommended to ensure systemic hypertension is not an issue. Assessment for any exercise intolerance warranted. If exercise intolerance is an issue, then Sildenafil trial could be considered. The cough is non-cardiogenic at this time, as left atrial size is normal. Primary respiratory disease is likely playing a role in the pulmonary hypertension.

The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflor maintenance or similar protocol if anesthesia is desired. Blood pressure recommended if not already performed and target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 3-6 months, earlier if murmur grade increases or clinical signs initiate.





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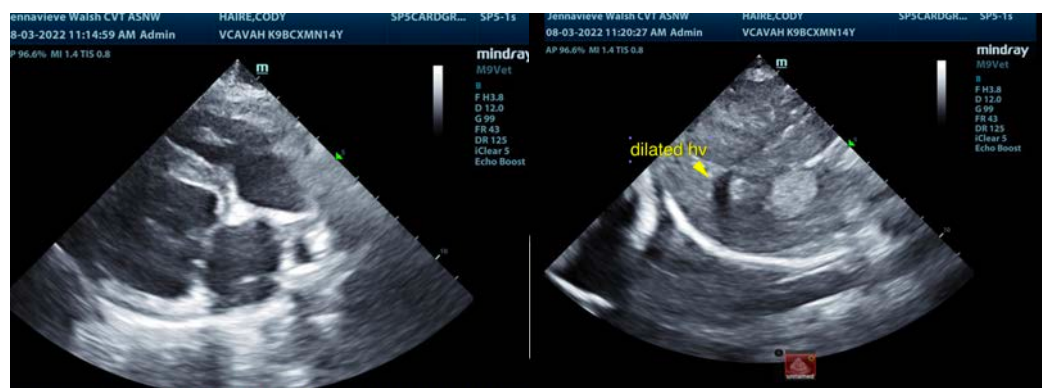
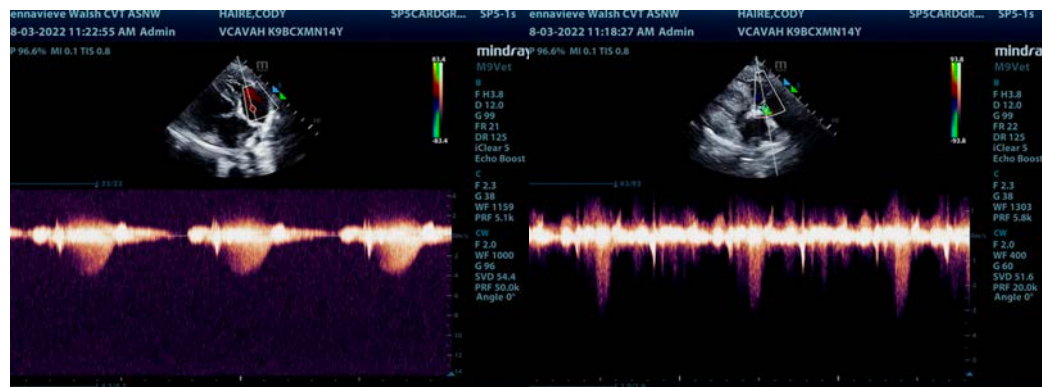
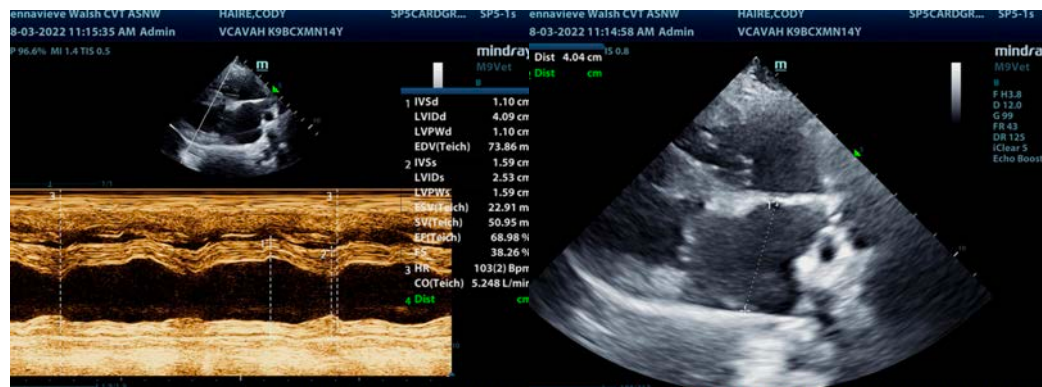
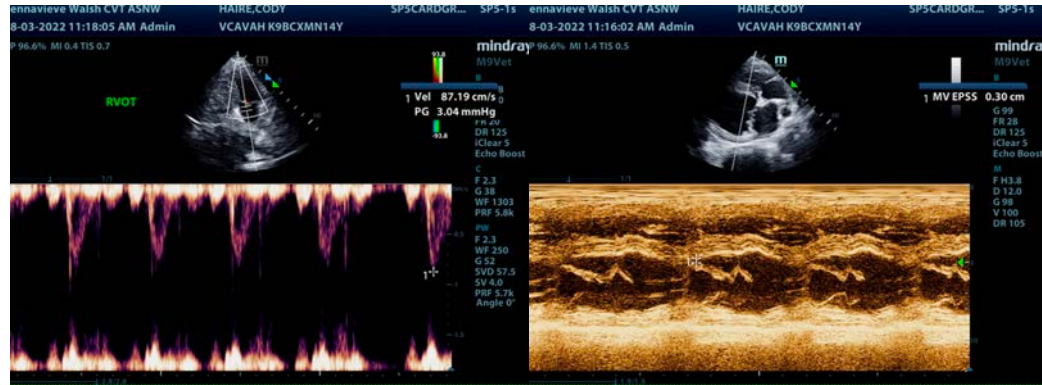
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PATIENT

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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

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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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

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