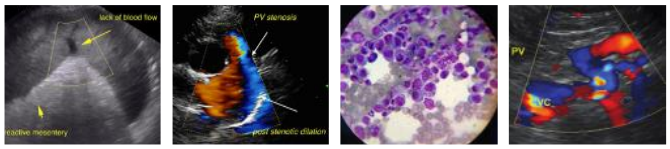
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Willie Richmond

SPECIES

Canine

BREED

Pomeranian

SEX

Neutered Male

AGE

9 Years

WEIGHT

8.4 kg

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Callihan

HOSPITAL NAME

Animal Emergency Care

REFERRING VET

Dr. Ryan

INVOICE

12716

DATE

11/29/21

PRESENTING CLINICAL SIGNS

History: S: Willy presented for a collapsing episode this evening. Tonight Willy was having a coughing episode when he collapsed and was largely unresponsive. He did not have any excess motor activity and his eyes were glazed over. After the event was over (2 minutes) he was less responsive, panting, and moving slowly. On the ride into the hospital he started to act more normal. Willy has a history of collapsing trachea and heart disease per owners (no medical records/details available) and is on furosemide 6.25mg Q12 and Enalapril 5mg Q24 for the past 4-5 years. His coughing has gotten worse over the past week.

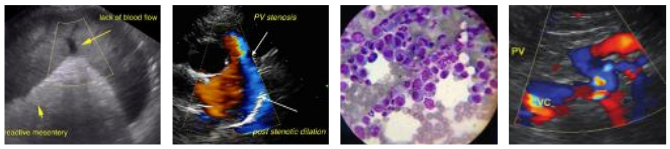
Abnormal PE/Chem/CBC/UA Results: Thoracic auscultation - grade 4 systolic heart murmur; pulses SS; no arrhythmia noted; lungs slightly harsh but no audible crackles BCS 7/9, bilaterally luxating patellas BP 170mmHg Systolic Labs: BUN just above ref range, 28 mg/dL; ALKP 379, else normal

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	<1.6	28-40	40-100	<0.6
PATIENT	6.0	2.85	1.9	1.7	53	85	NM
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	--	1.40	1.12	--	3.11	3.55	--

Cardiac Presentation

The echocardiogram for this patient presented excessive **left atrial size** expressed both in the LA/AO and LA max measurements Chamber volumes and echogenicity were normal. Prolapsed anterior mitral valve leaflet noted. 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. 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



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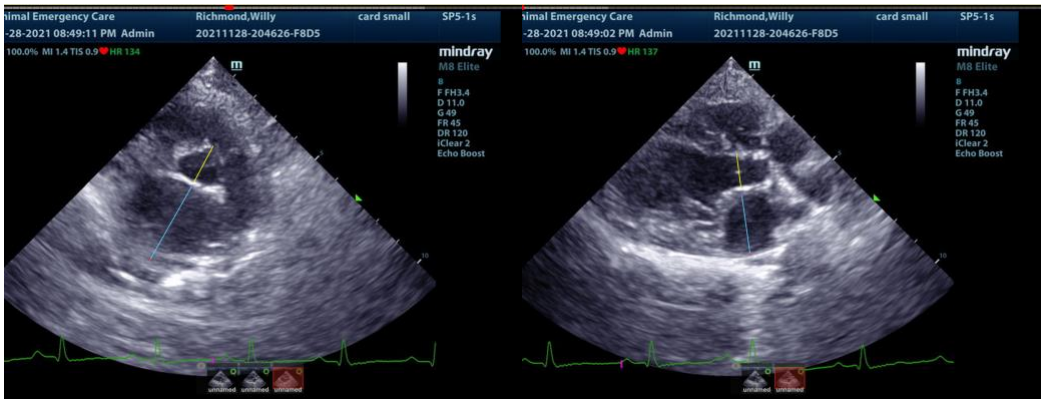
echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

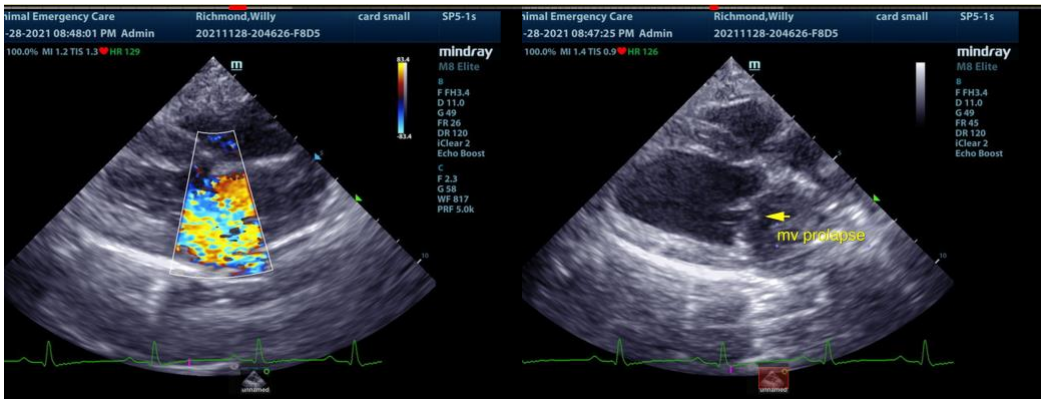
ULTRASONOGRAPHIC FINDINGS

- Advanced stage B-2 to C-1 valvular disease given the treatment on board and the measurements as well as the mitral valve prolapse.
- Mitral valve prolapse

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Pimobendan recommended at 0.3 mg per kg BID. Spironolactone could be considered at 1-2 mg per kg BID as well as Lasix at 1-2 mg per kg BID in addition to Enalapril and Furosemide. Recheck echocardiogram in 7-10 days. Monitoring blood pressures and BUN creatinine.





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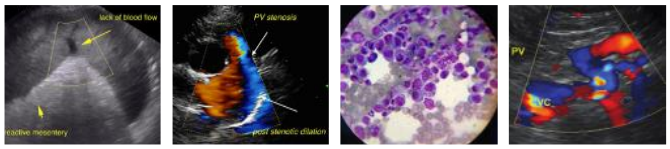

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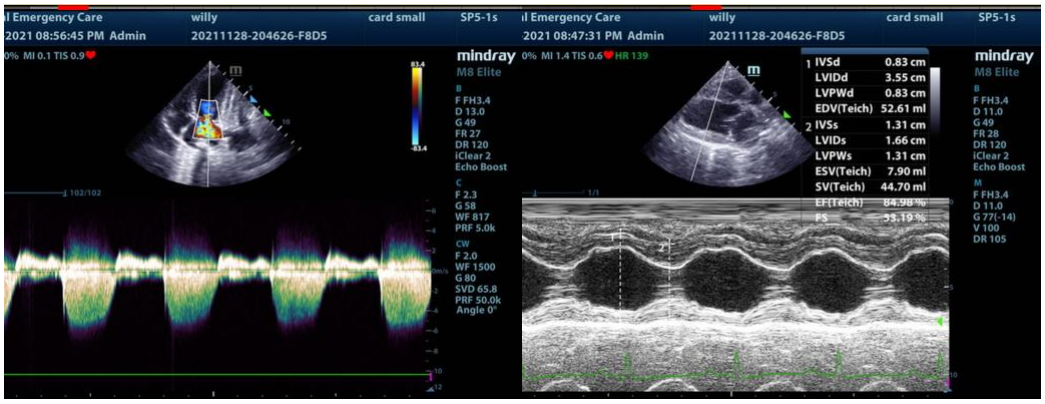

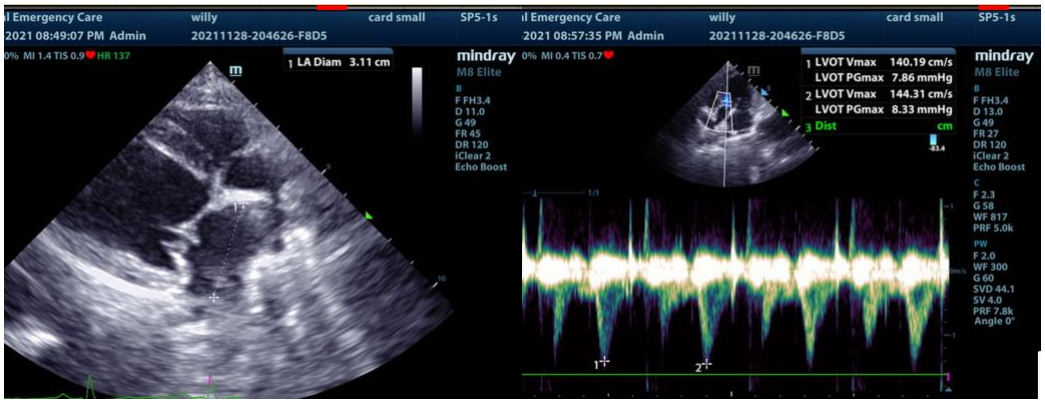

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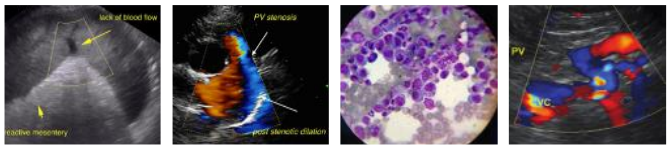

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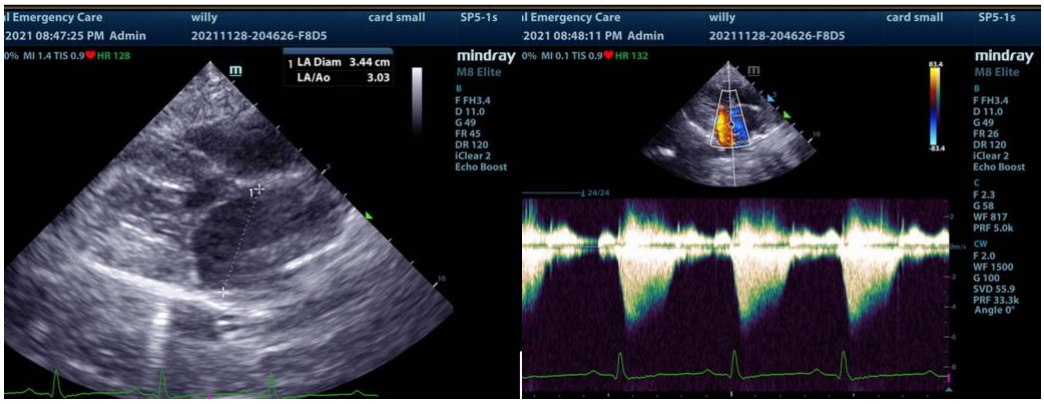

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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