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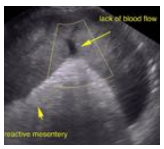
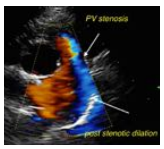
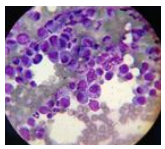
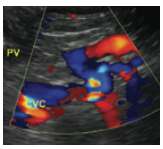

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1-800-838-4268 info@sonopath.com

PATIENT

Isabell Dotson

SPECIES

Canine

BREED

Yorkie Cross Shih Tzu

SEX

Spayed female

AGE

11 years

WEIGHT

7.2 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Evoniuk

HOSPITAL NAME

State Ave VC

REFERRING VET

Dr. Evoniuk

INVOICE

43376

DATE

3/21/23

PRESENTING CLINICAL SIGNS

History: 3/16/23- presented with sneezing, coughing, congested resp with clear nasal discharge, with 6/6 systolic murmur 3/21/23- echo- PO premeds and she was still very anxious for placement of the probe. Gave Butorphanol and Aceromazine.
Abnormal PE/Chem/CBC/UA Results: vetrad findings on chest xray: *moderate cardiomegaly with evidence of heart failure *respiratory signs RO concurrent lower airway disease

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. Prolapse of the anterior mitral valve leaflet was noted. The **left ventricle** presented normal 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** 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. Arrhythmogenic activity was noted.

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base;)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	5.4		1.5	1.8	55	90	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			0.6	7.2 lbs	3.0	2.4	

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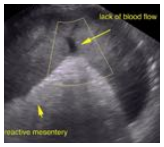
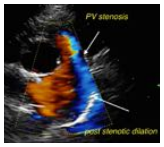
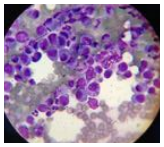
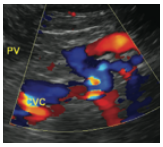

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ULTRASONOGRAPHIC FINDINGS

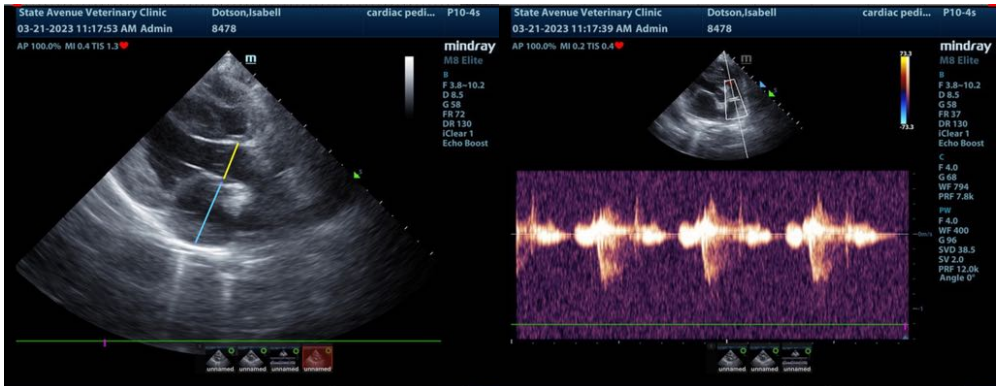
Mitral insufficiency, left atrial enlargement.

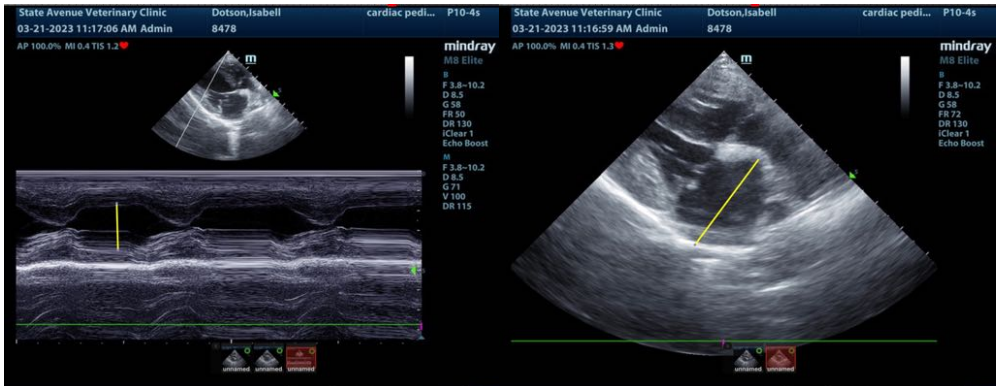
Stage B2 valvular disease.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend initiating Pimobendan at 0.3 mg/kg b.i.d. If systolic pressure is greater than 160 then ace inhibitor therapy is indicated. The coughing may be cardiogenic owing to mainstem bronchus impingement; however, this would depend upon radiographic findings. Low-dose Lasix trial can also be considered. However, the heart does not appear to have left sided failure at this time.

The heart has some volume overload and is working to compensate for the valvular insufficiency. Target respiratory rate is < 20 resp/minute after therapy. After initiating therapy, I recommend recheck on the clinical exam, BUN, Creatinine, USG, Chest radiographs & Blood pressure in 5-7 days. Recheck echo in 1 month. Earlier if clinical decompensation is occurring. I do not recommend anesthesia at this time until stabilization has occurred on the recommended medications. Repeat preanesthetic echo is ideal if anesthesia is eventually necessary.





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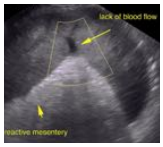
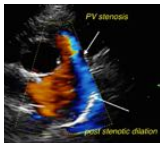
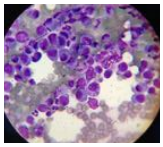
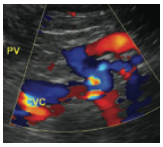

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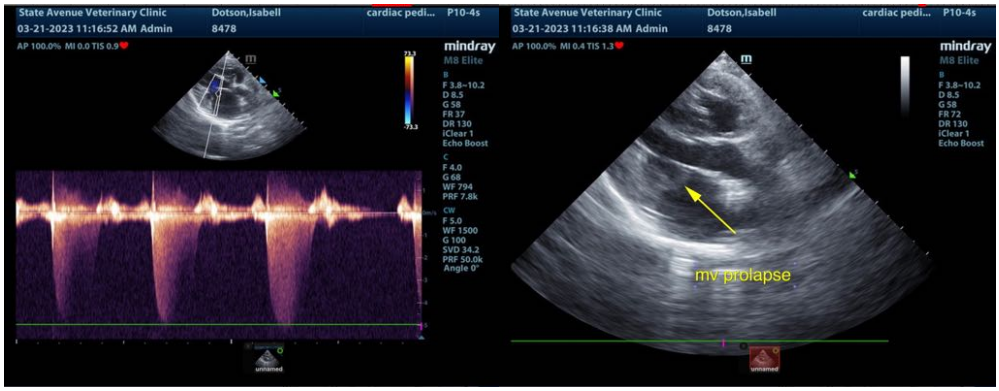

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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