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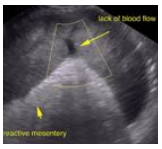
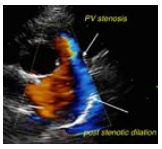
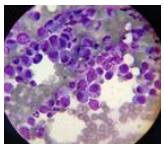
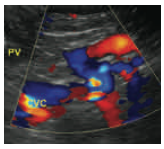

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1-800-838-4268 info@sonopath.com

PATIENT

Benjamin Humane Society of Guaynabo

SPECIES

Canine

BREED

Mix

SEX

Neutered male

AGE

7 years

WEIGHT

7.8 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Ferrer

HOSPITAL NAME

Paseos VC

REFERRING VET

Dr. Ortiz

INVOICE

95720

DATE

2/1/22

PRESENTING CLINICAL SIGNS

Presented for echocardiogram to evaluate heart murmur before a surgical procedure. Patient has a pedunculated mass on the left neck area the mass appears to be restricted to the skin and subq Recommended excision and send out heart - severe systolic grade 5/6 murmur Recommended cardiac work up BEFORE going to surgery Pt has a urinary tract infection and was sent home with Clavamox. Abnormal PE/Chem/CBC/UA Results: BW: CBC: unremarkable Chemistry: IDEXX SDMA 35 (0 - 14 µg/dL) Creatinine 2.0 (0.5 - 1.8 mg/dL) BUN 48 (7 - 27 mg/dL) Potassium 6.0 (3.5 - 5.8 mmol/L) U/A: USG: 1.017 RBCs 4+, WBC 3+, Rods bacteria present.

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. Prolapse of the anterior mitral valve leaflet was 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. Minor **tricuspid** insufficiency was noted and measured 1.5 m/sec. Mild **right ventricular** dilation was noted. **Pulmonic** valve was dilated. Pulmonic insufficiency was noted with significant pulmonary artery dilation. 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.

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	5.5	1.5	NM	> 2.5	60	91	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				
PATIENT		1.16	1.5	7.8 lbs	4.1 max	3.2	

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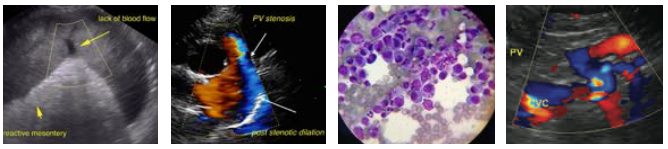

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ULTRASONOGRAPHIC FINDINGS

Advanced stage B2 valvular disease.

Concurrent tricuspid insufficiency.

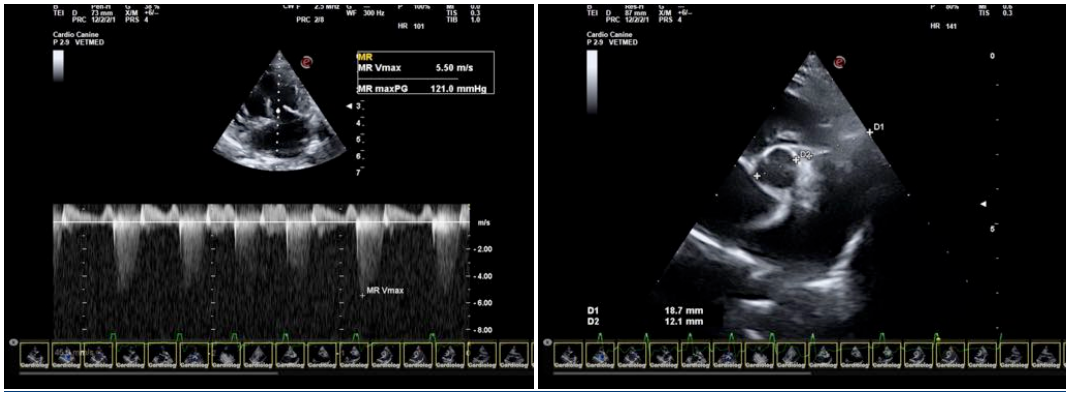
Prominent right heart.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Heartworm testing is recommended in this patient. There is significant anesthetic risk. There is concern for emerging heart failure. The hepatic veins should be evaluated to assess for dilation and potential emerging right-sided failure. The causes of right-sided failure should be evaluated such as chronic bronchial disease; however, given the volume overload in the left heart this is likely playing a role in probable pulmonary hypertension. However, the velocities interfered with by regional artifact. I do not recommend surgery in this patient at this time. The following therapy is recommended.

Pimobendan 0.3 mg/kg BID, ACE inhibitor 0.5 mg/kg SID progressing to BID over 5-7 days and Spironolactone 1-2 mg/kg b.i.d.

B2/C1: The heart is in a somewhat precarious state with volume overload and a heart that 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 pre-anesthetic echo is ideal if anesthesia is eventually necessary.



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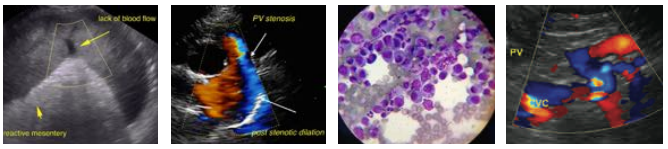

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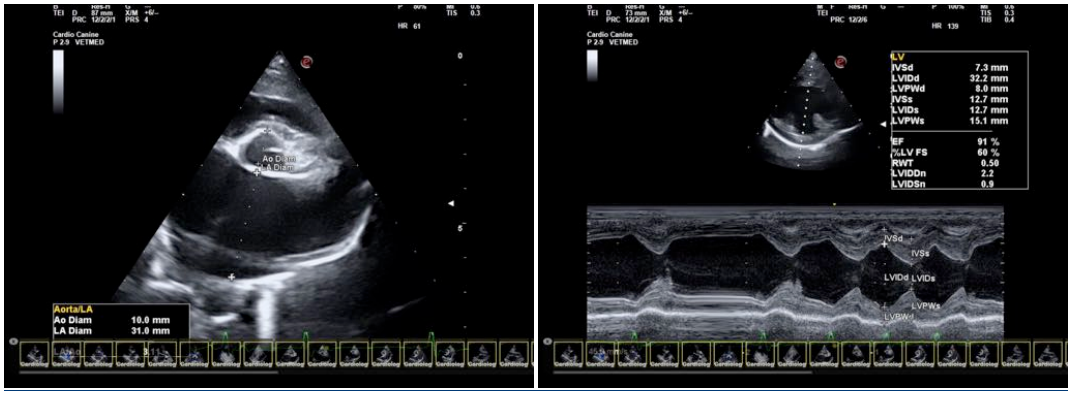

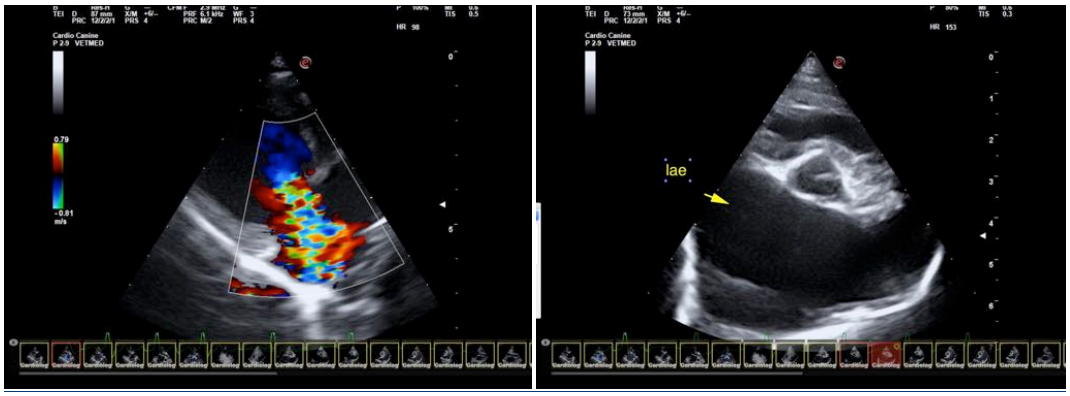

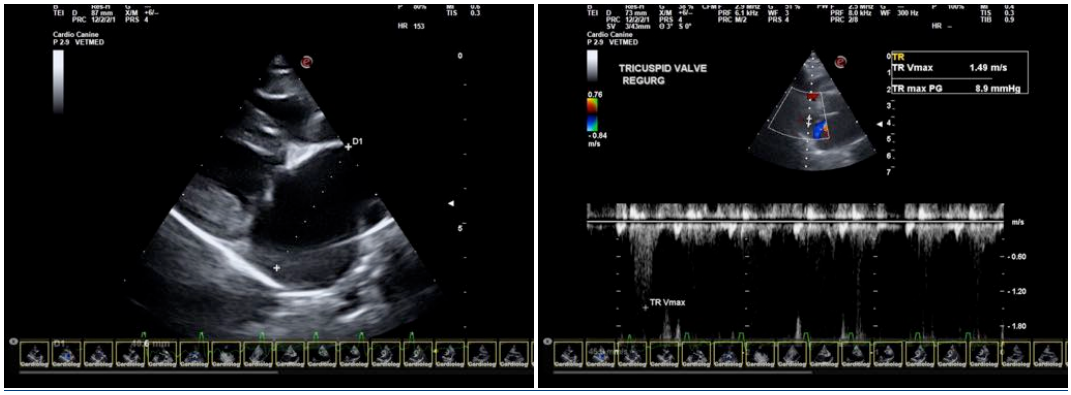

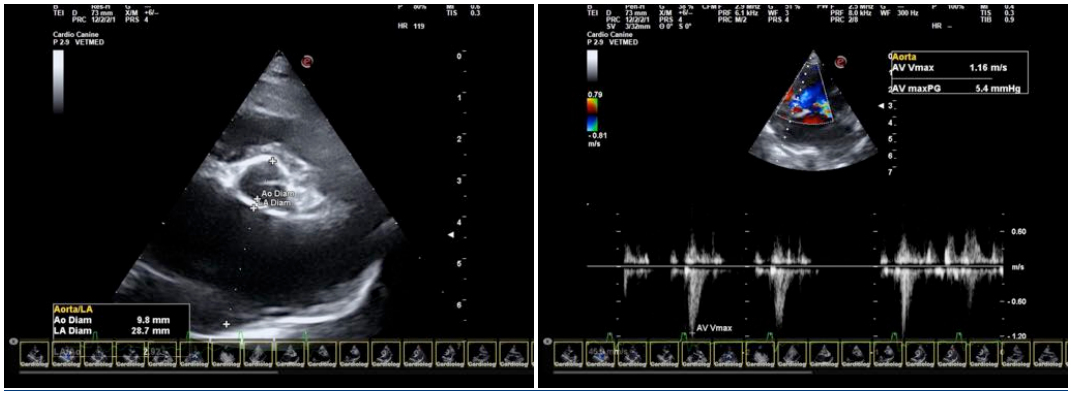

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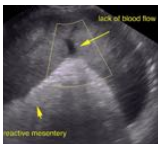

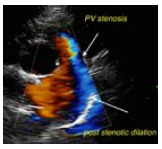

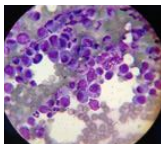
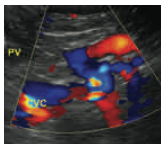

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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