


**PATIENT**

Echo Zirchsky

**SPECIES**

Canine

**BREED**

Australian Shepherd

**SEX**

Spayed Female

**AGE**

11 Years

**WEIGHT**

24.5 kg

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Wilvet of Salem

**REFERRING VET**

Dr. Ebert

**INVOICE**

46007

**DATE**

3/17/23

**PRESENTING CLINICAL SIGNS**

P has arrhythmia (4/6) and current cyanosis and increased respiratory rate. Patient has worsening of CHF with weaning down of furosemide. Blood Pressure Measurements 158/105 MAP 117 Current Medications O had currently been giving Furosemide 20mg 1/2 tablet q24h. Radiographic Findings did not perform Primary Question/Differential to Be Answered in This Exam R/O: heart disease-DCM, SAS, AV block, sinus rhythm with bundle branch block, v-tach or afib. Abnormal PE/Chem/CBC/UA Results: LAC 3.87 BE, ECF -7.4

**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	4+	3.0	NM	2.77			0.89
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		158 max.			7.54		

**Cardiac Presentation**

The cardiac presentation revealed severe mitral and tricuspid insufficiency with persistent arrhythmogenic activity and hypocontractility that is not compensatory for this type of pathology. Aortic velocity highly variable based on arrhythmia. Pulmonic insufficiency noted at 3.27 m/s. Severe left atrial and right atrial enlargement noted with pericardial effusion, which leads to the potential of underlying left atrial tear. This is a highly precarious presentation. Hepatic vein dilation noted. Tricuspid insufficiency and pulmonic insufficiency velocities consistent with pulmonary hypertension.

**ULTRASONOGRAPHIC FINDINGS**

- Left- and right-sided heart failure with pericardial effusion, potential left atrial tear

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recommend strict cage rest and oxygen therapy. Aggressive quadrotherapy with Pimobendan 0.3 mg/kg BID, Lasix 2-4 mg/kg BID, ACE inhibitor 0.5 mg/kg SID progressing to BID, and Spironolactone at 1-2 mg/kg BID. This patient is at high risk for sudden death. Underlying causes of myocarditis in your region should also be considered, given the myocardial insufficiency. However, this is likely secondary to chronic volume overload and myocardial hypoxia.



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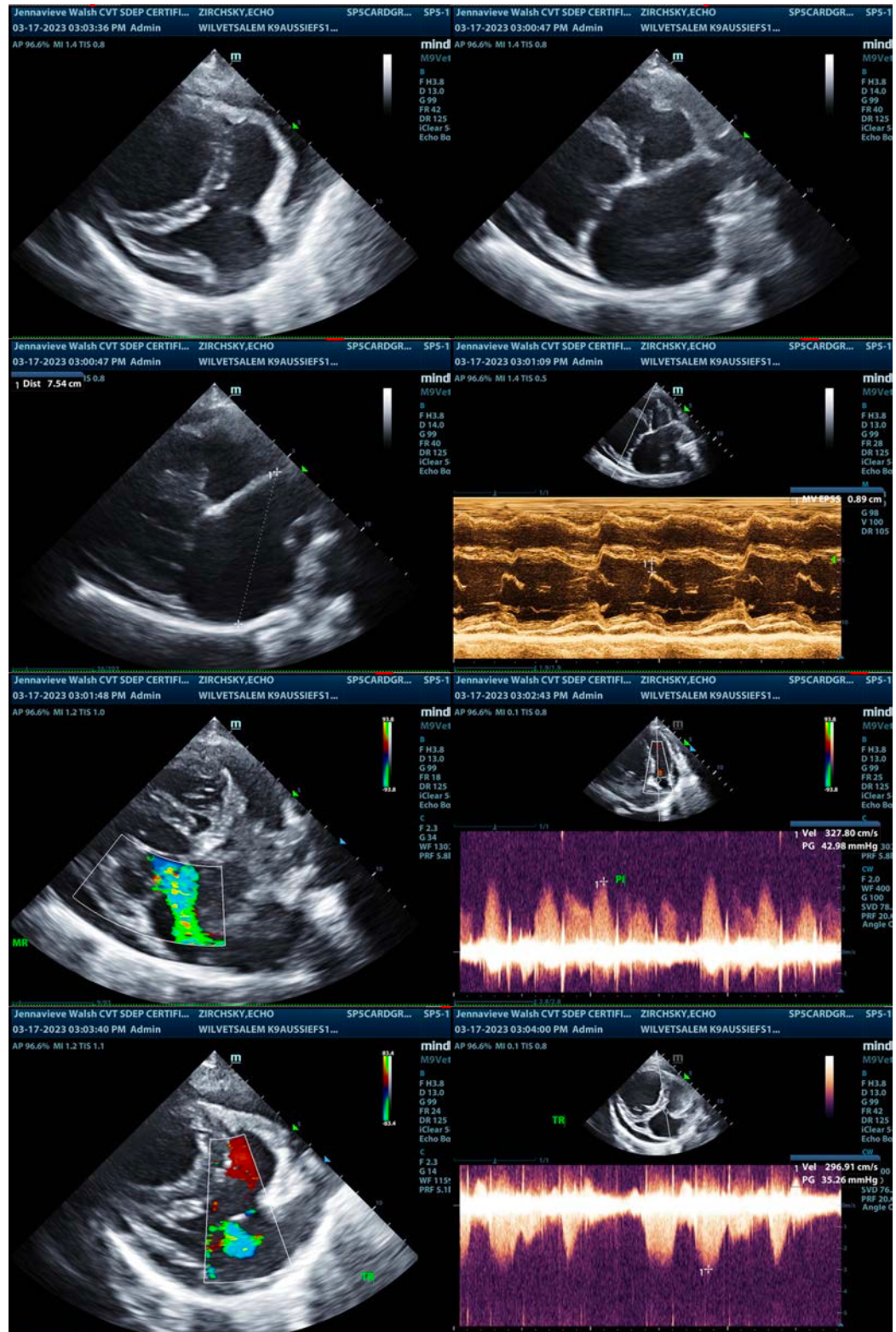
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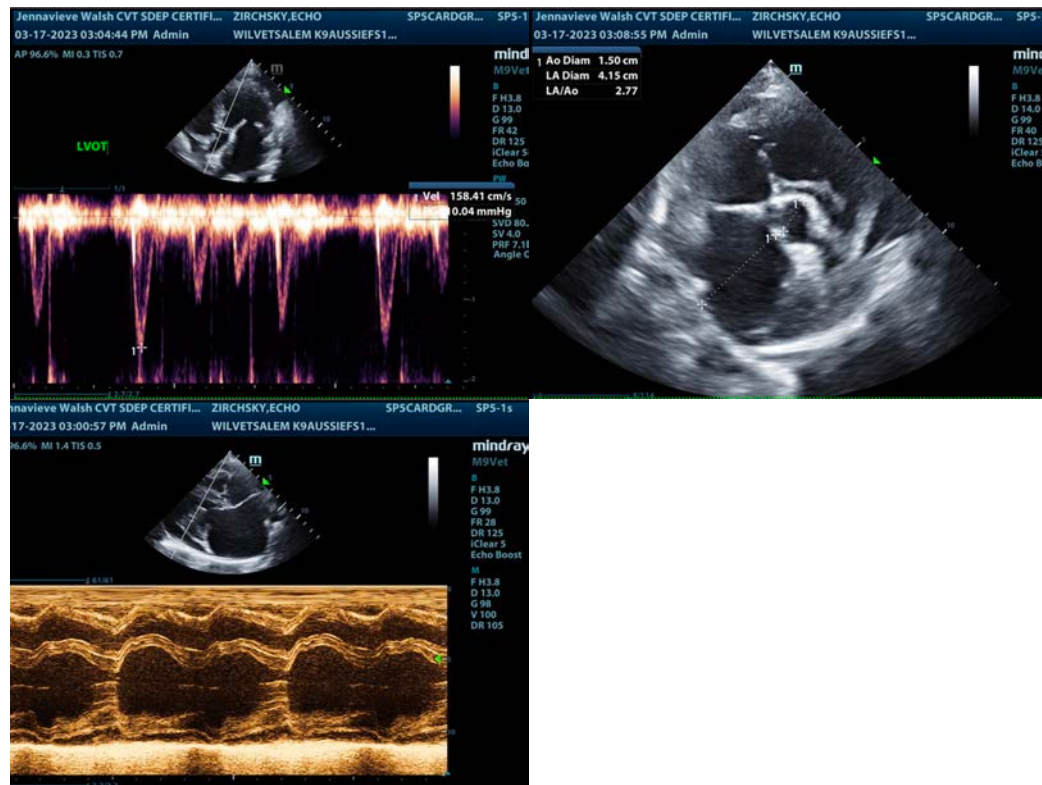
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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