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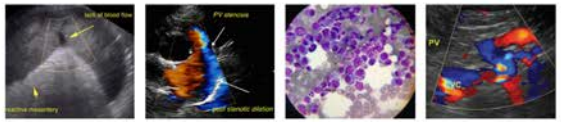

Charleston Mobile Veterinary Services
IMAGING PERFORMED BY
CharlestonMobile.Net 800.403.5408

PATIENT

Ranger Tomkins

SPECIES

Canine

BREED

Cavalier King Charles Spaniel

SEX

Spayed Female

AGE

9 Years

WEIGHT

13 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

HOSPITAL NAME

Pet Vet

REFERRING VET

Dr. Lara Allison

INVOICE

39344

DATE

7/9/22

PRESENTING CLINICAL SIGNS

Dyspnea, tachycardia ECHO 01-13-22 stage B2 mitral valve disease with severe mitral valve regurgitation and left atrial enlargement 4-5/6 murmur Presented yesterday with increased respiratory rate. Lasix increased overnight
Abnormal PE/Chem/CBC/UA Results: CBC/chem from 7/8/22 - mild leukocytosis/monocytosis; mildly elevated BUN - 41; high normal creat (1.2). Lasix dose increased after this bloodwork obtained HR/RR/BP - 180/100/118 Rads: Cardiomegaly -left and right sided and alveolar pattern perihilar and caudal lobes Meds: Was on Pimo: 2.5 mg BID Enalapril: 2.5 mg SID or BID (last cardio report says BID) Lasix - 10 mg BID Yesterday afternoon, increased Lasix 10 mg to tid. Pimobendan 2.5 tid, enalapril 2.5 mg bid

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	>5.0		NM	>2.5	45	90	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	160	1.1	0.6		4.9	4.27	

Cardiac Presentation

Severe **mitral** valve prolapse noted, consistent with ruptured chordae tendineae, which is likely responsible for the rapid decompensation. Severe **left atrial** enlargement noted and significant tachycardia. 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** 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.

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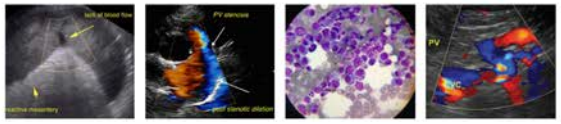

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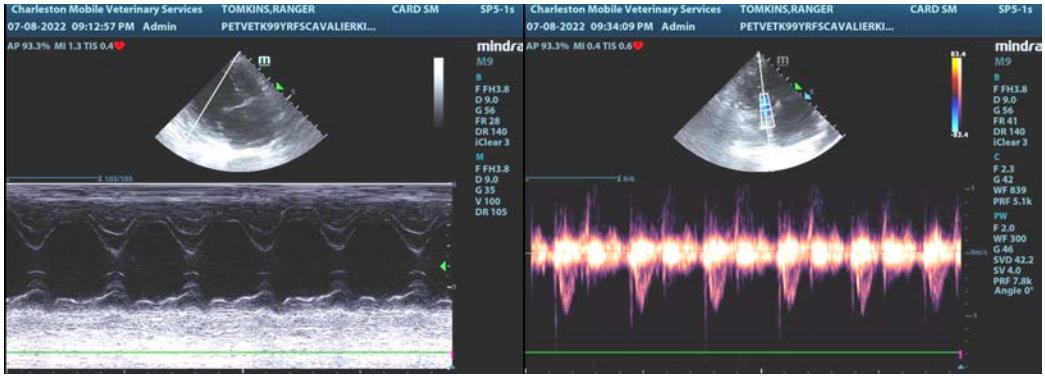
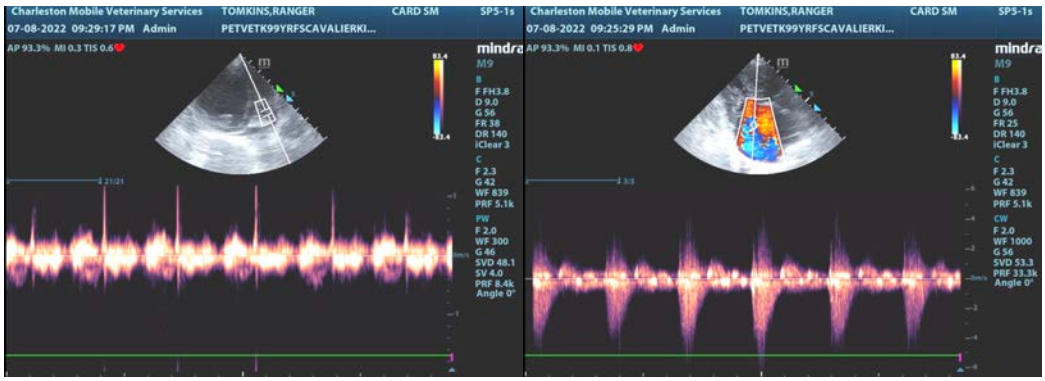
PRIMARY FINDINGS

- Mitral valve prolapse
- Ruptured chordae tendineae
- Severe left-sided volume overload
- Stage C1-D1 valvular disease with tachycardia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This is a precarious presentation. Recommend cage rest and oxygen. This represents significant decompensation from the prior sonogram. Recommend continuation of TID treatment with Pimobendan 0.3 mg/kg, continuation of Enalapril 0.5 mg/kg BID, Lasix may be increased to 2-4 mg/kg based on azotemia and hydration status as well as blood pressures. Spironolactone can be added at 1-2 mg/kg BID. Torsemide rescue therapy can be considered with attentive dose management in respect to renal/urinary side effects. Prognosis is extremely guarded to poor long-term. Cage rest and stabilization over the next 48-72 hours warranted. 24-hour care is ideal in this patient. This patient is at risk for sudden death. Based on the prior echocardiogram, significant decompensation of all parameters is evident.





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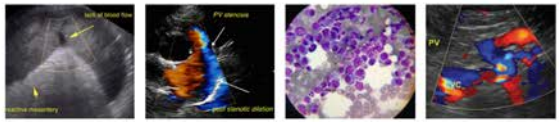

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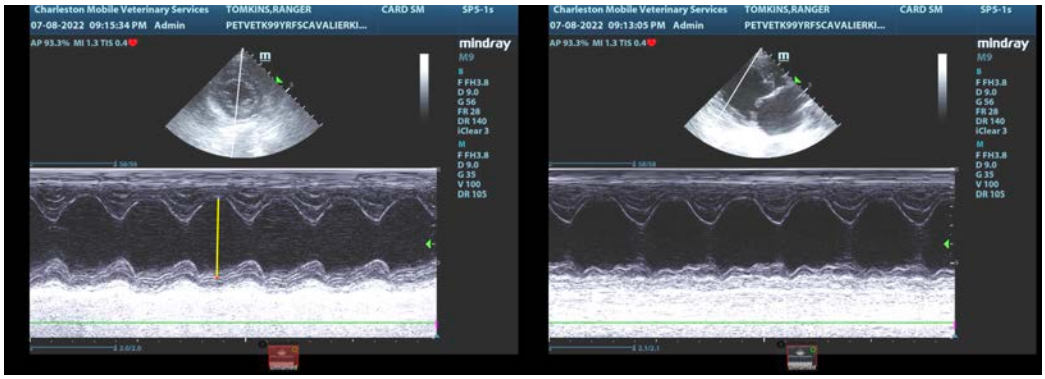

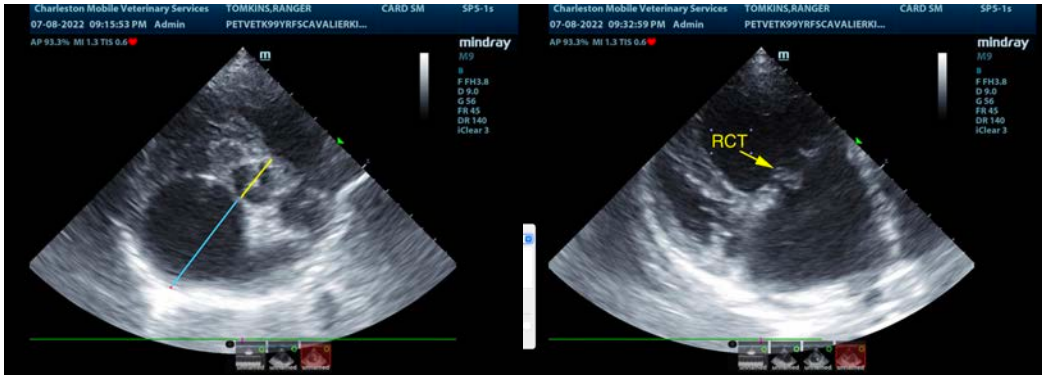

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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