SonoPath
Clinical Sonography & Telecytology
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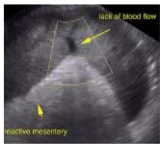

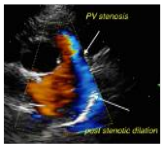

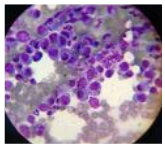
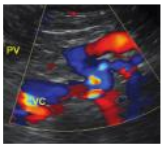

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1-800-838-4268 info@sonopath.com

PATIENT
Oscar-Mayer-DeMichael

SPECIES
Canine

BREED
Dachshund

SEX
MN

AGE
9 yrs

WEIGHT
20.33

INTERPRETED BY
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY
Jessica Miller

HOSPITAL NAME
Newton VH

REFERRING VET
Dr. Verhalen

INVOICE

DATE
8/30/22

PRESENTING CLINICAL SIGNS

-H/o systolic murmur, dyspnea and crackles today. Current meds: Furosemide

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	<1.3	28-40	40-100	<0.6
PATIENT				2.8	38.2	71.8	0.2
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				
PATIENT	110				4.8	3.8	

Cardiac Presentation

The echocardiogram in this patient demonstrated severely enlarged **left atrial** size based on 3 different LA measurement methods. Deviation of the interatrial septum towards the right atrium, consistent with increased left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. No evidence of valvular prolapse or chordae tendinea rupture. Doppler indicated eccentric insufficiency. The **left ventricle** presented thicknesses with maintained linear contour with Increased left ventricle volume. 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 subjective normal laminar flow and structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. No evidence of masses or chamber overload. **Tricuspid** valvular assessment demonstrated concurrent mild thickening. 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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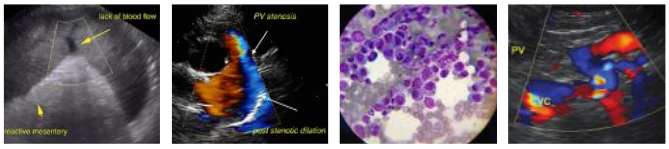

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ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM Stage C)
- Normal RA / RV

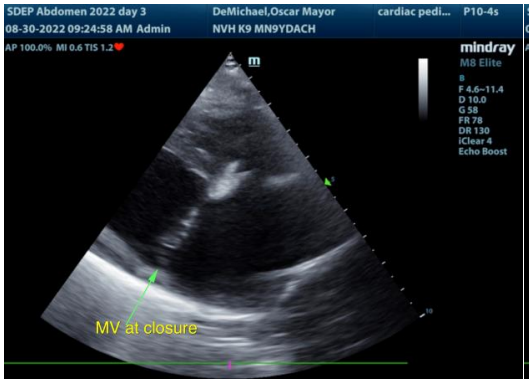
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

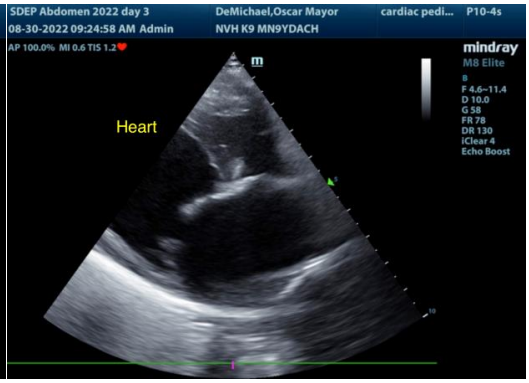
The echocardiogram is consistent with advanced chronic mitral valve disease with significant left heart volume overload. The degree of left atrium enlargement indicates that the current risk secondary to complication is severely elevated and consistent with left-sided congestion as a cause of the dyspnea and audible crackles. No other clinical Issues such as LV systolic dysfunction or overt evidence of clinical pulmonary hypertension, given the normal RA / RV size. However, the possibility of some degree of increased pulmonary pressure secondary to left heart volume overload cannot be definitively excluded.

Hospitalization with injectable diuretic therapy and as-needed oxygen until the patient is stabilized is recommended. Pimobendan 0.3mg/ kg PO BID, Lasix / Spironolactone combination, both 1.0-2.0 mg / kg PO BID, is recommended. Ideally, systemic BP and ECG to rule out evidence of arrhythmogenic disease is suggested. ACE inhibitor therapy may be beneficial if systemic BP >130, (not advised if BP <130).

Although not definitive, decreasing heart rate was noted during the brief echocardiogram which may potentially indicate emerging LV systolic failure. If the patient is stabilized, a recheck echocardiogram is suggested in 10-14 days, sooner if progressive evidence of CHF.

Given the degree of left heart enlargement and volume overload, a very guarded to unfavorable long-term prognosis is indicated.





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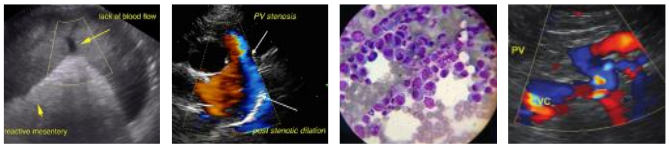

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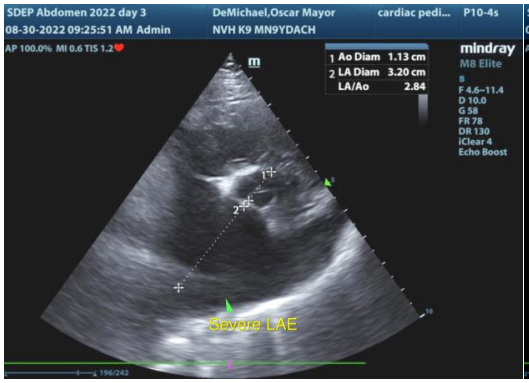

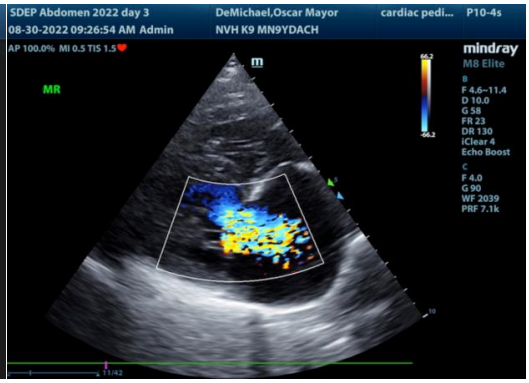

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com