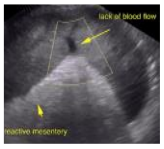
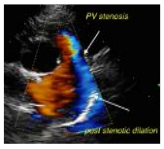
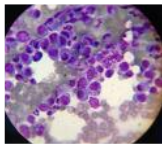
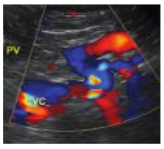
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Chloe Engle

SPECIES

Canine

BREED

Dachshund

SEX

FS

AGE

12 years

WEIGHT

Not Provided

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

ACC Flanders

REFERRING VET

Dr. Hallihan

INVOICE

13772

DATE

5/3/22

PRESENTING CLINICAL SIGNS

Pre-op EKG performed 4/29/22, grade 2/6 systolic murmur, thoracic rads showed enlarged r/l atria, VHS 11.9 Current meds: Vetoryl 5mg - 1C BID
Abnormal PE/Chem/CBC/UA Results: Alk Phos 259 UA: pH 8.0 SG 1.011

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	5.7	1.8		1.66	54.9	86.9	0.11
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	116	1.67	0.92		3.0	3.0	

Cardiac Presentation

The echocardiogram in this patient demonstrated mildly enlarged **left atrial** size based on 3 different LA measurement methods. Subtle deviation of the interatrial septum towards the right atrium, suggestive of mild elevated left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. Doppler indicated measurable eccentric insufficiency. 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 mild subjective thickening with minor TR on doppler. 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.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2)

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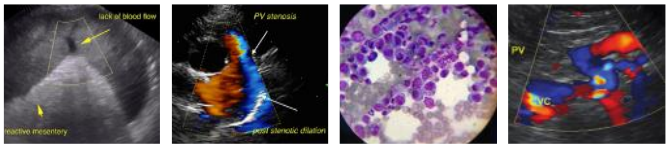

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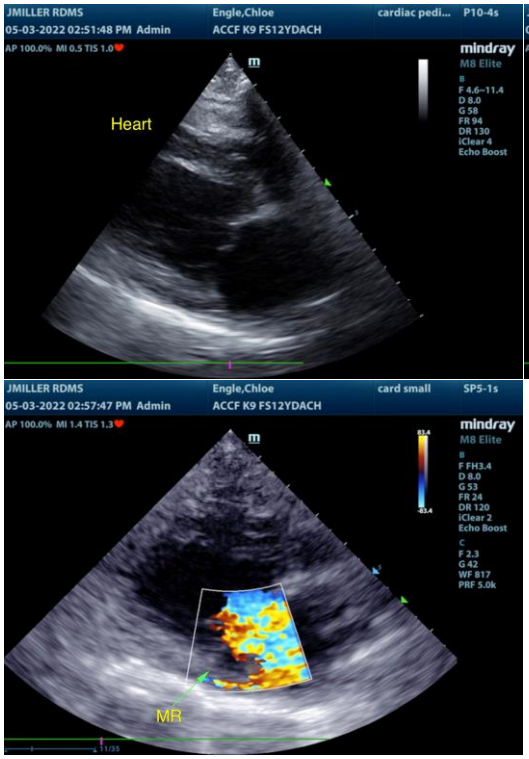
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur secondary to chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The mildly elevated left atrium indicates that the current and future risk going forward is mildly elevated. Overall, the heart appears to be compensated at this stage. No other clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension were present.

In a nonclinical patient without evidence of significant cardiac changes, cardiac medications are not obviously indicated. However, Vetmedin 0.3 mg/kg PO BID at this point would be warranted, as this medication may help prolong cardiac changes associated with mitral valve insufficiency. Serial sonographic monitoring is required for further prognosis. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs arise. No overt anesthetic contraindications are evident. Judicious IV fluid use is recommended under anesthesia, as this patient may be slightly more prone to fluid overload. The following anesthetic protocol is suggested.

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.



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