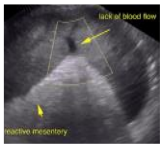
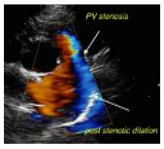
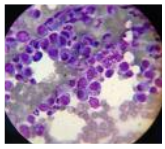
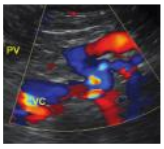
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Ella Mende

SPECIES

Canine

BREED

Terrier Mix

SEX

FSA

AGE

11 years

WEIGHT

5.4

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Mavis McCormick-Rantze

HOSPITAL NAME

Lanier AH

REFERRING VET

Dr. Macie Joncas

INVOICE

16372

DATE

3/14/23

PRESENTING CLINICAL SIGNS

Presented on 2/28 for a dental - had just been seen w/in last month; P heart murmur changed from a left sided 3/6 to a 5/6 heard on both sides in less than a month. Crackles also heard bilaterally on auscultation of the lungs that day; recommended no anesthesia and to work up the heart w/ Rads first; came back w/ severe left sided heart enlargement and pulmonary edema; started on Vetmedin 1.25 mg 1/2 tab bid and furosemide 12.5 mg, 1/2 tab bid; she is currently doing well. Mom said that she had been coughing before coming in for the dental but thought it was tracheal collapse; coughing has gone away

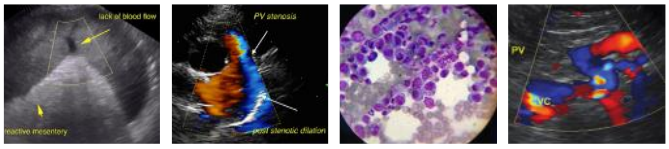
Abnormal PE/Chem/CBC/UA Results: cbc: wnl/nsf chem: wnl/nsf UA: USG wnl/nsf T4 wnl 4 dx plus: neg Fecal AG: neg

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				1.75	50	85	0.25
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	NM	NM	NM		2.2	1.8	

Cardiac Presentation

The echocardiogram in this patient demonstrated mild to moderate increased **left atrial** size based on LA/AO measurement. The cranial and caudal **mitral** valve leaflets presented subjective moderate thickening most consistent with endocardiosis. No overt or visualized evidence of chordae tendineae rupture with suspected valvular prolapse. The **left ventricle** presented normal thicknesses with linear contour with subjective mild increased LV 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 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,



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

PATIENT

Ella Mende

SPECIES

Canine

BREED

Terrier Mix

SEX

FSA

AGE

11 years

WEIGHT

5.4

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Mavis McCormick-Rantze

HOSPITAL NAME

Lanier AH

REFERRING VET

Dr. Macie Joncas

INVOICE

16372

DATE

3/14/23

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. No arrhythmia was noted.

ULTRASONOGRAPHIC FINDINGS

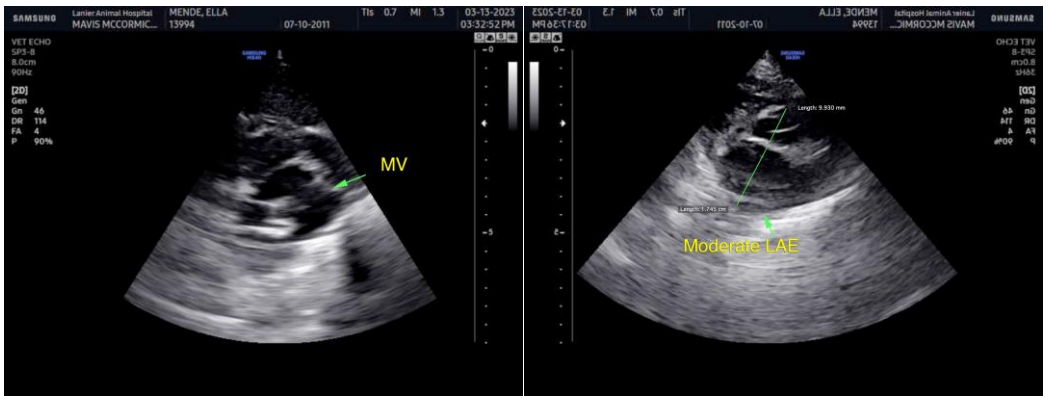
- Chronic mitral valve disease with suspect mild valvular prolapse (ACVIM B2, possible stage C)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

In conjunction with radiographic interpretation, this study is most consistent with chronic degenerative valvular changes with secondary MR and evidence of LA/LV enlargement. Subjective normal to adequate LV systolic function was noted.

Based on the positive response to empirical therapy, continued Pimobendan 0.3 mg/kg PO BID with lowest effective dose of diuretic therapy, continued monitoring of clinical response, as well as monitoring of renal parameters going forward, is warranted. Mild salt restriction and omega-3 fatty acids supplementation may be of some benefit. Prognosis may be considered highly variable and sonographic monitoring is suggested. Recheck echocardiogram is advised in 6 months, sooner if recurrent or persistent clinical signs. Anesthetic risk is considered elevated and not advised until further cardiac assessment. If anesthesia is absolutely necessary, the following anesthetic protocol is recommended with judicious IV fluid use and limited anesthetic time.

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.

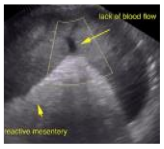


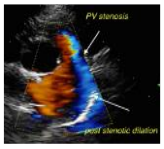
The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

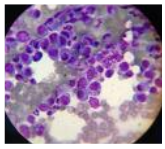
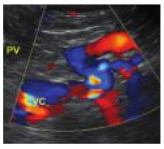
Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Ella Mende

SPECIES

Canine

BREED

Terrier Mix

SEX

FSA

AGE

11 years

WEIGHT

5.4

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Mavis McCormick-Rantze

HOSPITAL NAME

Lanier AH

REFERRING VET

Dr. Macie Joncas

INVOICE

16372

DATE

3/14/23

info@SonoPath.com