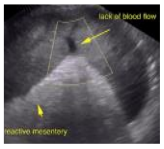
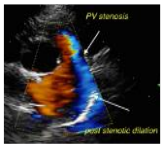
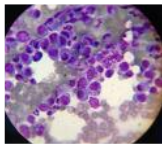
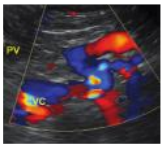
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Jinny Lee

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

Not provided

AGE

11y

WEIGHT

11.3 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Kim

HOSPITAL NAME

Ridgefield Park AH

REFERRING VET

Dr. Kim

INVOICE

14603

DATE

8/12/22

PRESENTING CLINICAL SIGNS

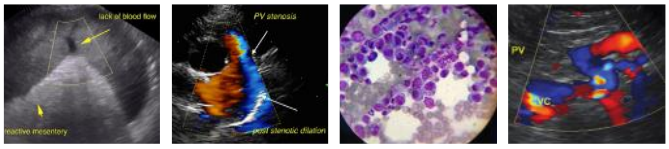
Patient presents to the hospital for a follow up after hospitalization due to CHF. Patient had been breathing heavy and coughing. X-rasy were done at previous visit where an enlarged heart and pulmonary congestion was present, also patient was not eating much at home. Patient received furosemide and oxygen therapy and went home. Today owner says that she was coughing but less than before and despite increased urination, patient has been doing well in general and eating normally. Blood pressure: 188/93 MAP: 132
Abnormal PE/Chem/CBC/UA Results: Pro-bNP: 3099.9 pmol/l

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				2.0	45.7	80.5	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	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.3	1.3		3.3	3.5	

Cardiac Presentation

The echocardiogram in this patient demonstrated moderately enlarged **left atrial** size based on 3 different LA measurement methods. Minor deviation of the interatrial septum towards the right atrium, suggestive of increased left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable eccentric mitral valve insufficiency. The **left ventricle** presented thicknesses with maintained linear contour with mild to moderate increased 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. Mild TR was present 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



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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.

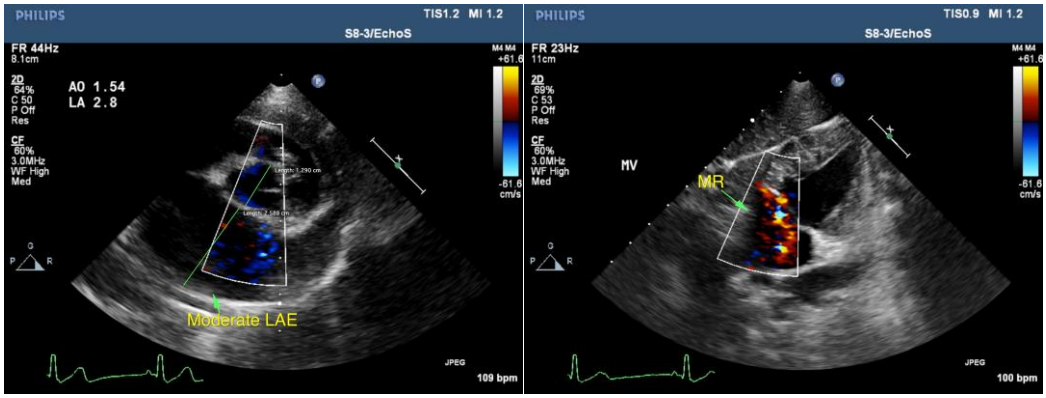
ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2)
- Mild TR - no evidence of clinical pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is consistent with chronic degenerative valvular changes with eccentric mitral valve and mild tricuspid valve insufficiency. The moderately enlarged left atrium, as well as increased left ventricle volume, indicate that the current and future risk going forward of complication is moderately elevated. Potential for congestion is possible. No other clinical issues such as LV systolic dysfunction were present.

Pimobendan 0.3 mg/kg PO BID, as well as the lowest effective dose of diuretic therapy until the patient is stabilized, is recommended. Given the lack of significant left atrium enlargement, potential attempt to ween diuretic therapy with continued Pimobendan and assessment of clinical response could be considered. However, low-dose long-term diuretic therapy may be indicated with monitoring of resting respiration rate. Antitussive medications such as Hydrocodone may be considered if persistent coughing without evidence of radiographic pulmonary edema. Prognosis at this stage Is highly variable and serial sonographic monitoring is required for further assessment. Recheck echocardiogram is recommended in 6 months, sooner if progressive clinical signs are noted.



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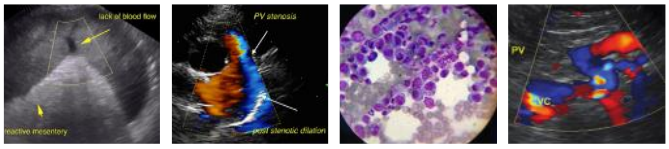

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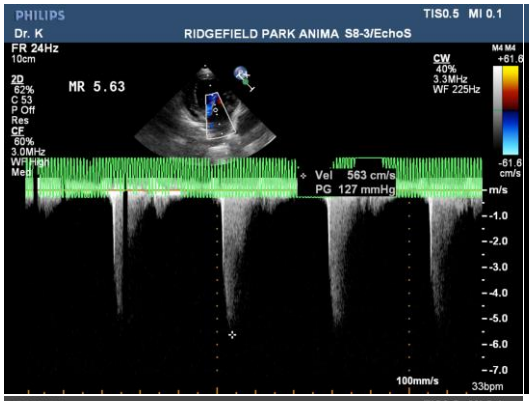

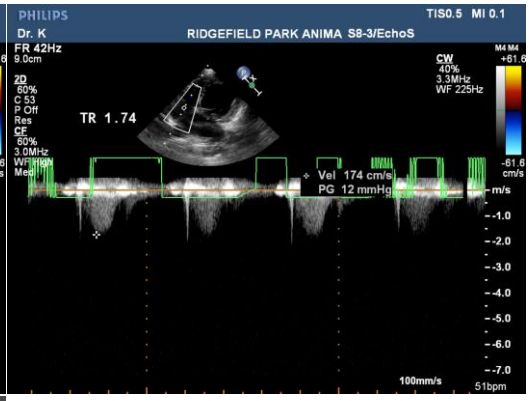

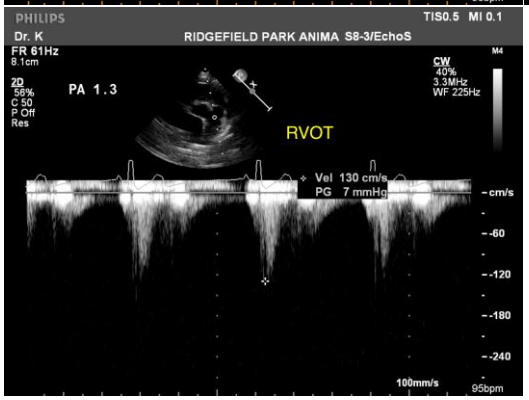

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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