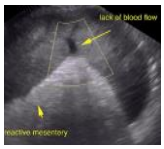
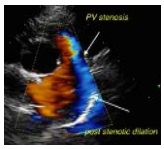
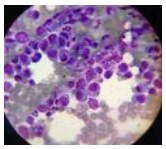
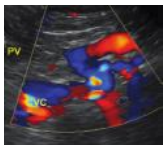
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Busby Poley

SPECIES

Canine

BREED

Cavalier King Charles Spaniel

SEX

MN

AGE

12 yr

WEIGHT

25 lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

VCA Blairstown Animal Hospital

REFERRING VET

Dr. Harker

INVOICE

11043ag

DATE

07/05/2022

PRESENTING CLINICAL SIGNS

History: Pre-anesthetic risk CUS. Grade IV/VI heart murmur. No current meds

Abnormal PE/Chem/CBC/UA Results: n/a

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	5.6	3.6	1.9	2.5	46.2	77.7	0.34
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	153	1.2	0.7		5.4	4.5	

Cardiac Presentation

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. Deviation of the intra atrial 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. Minor prolapse of the septal leaflet was present. Doppler indicated measurable moderate eccentric insufficiency. The left ventricle presented thicknesses with 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 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 concurrent vegetative thickening with TR 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 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, possible emerging C)
- TV insufficiency-estimated pulmonary pressure gradient consistent with mild elevated pulmonary pressure

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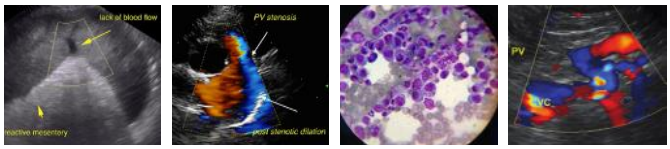

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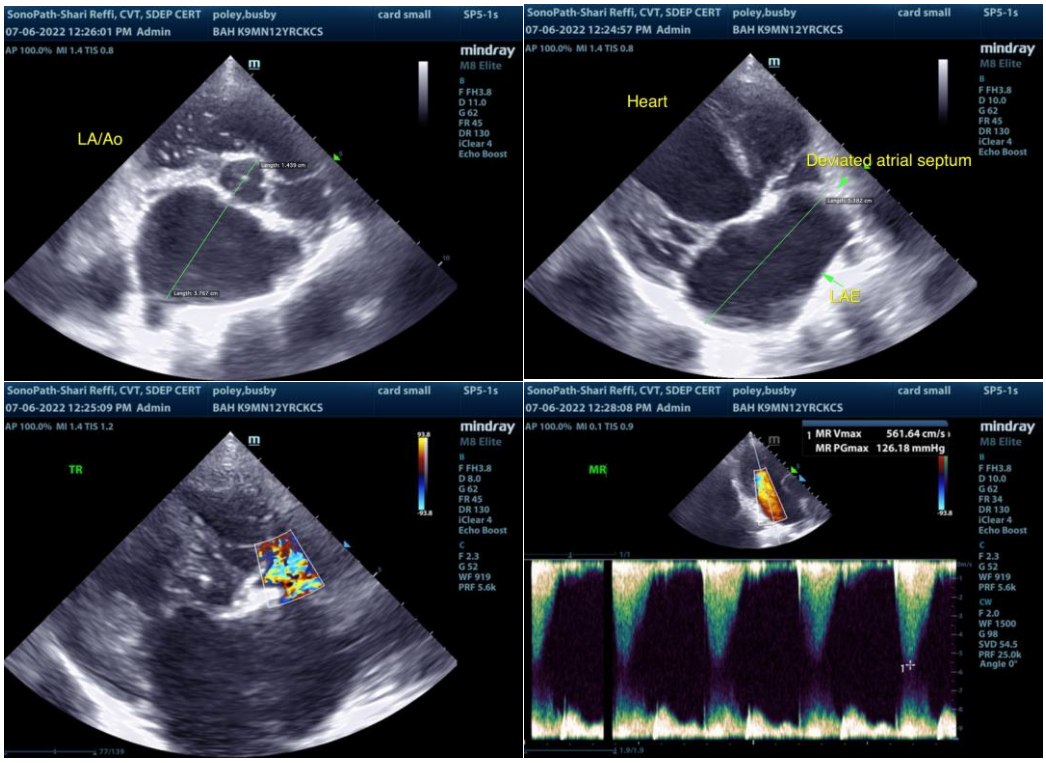
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is consistent with chronic degenerative valvular changes with primary moderate eccentric MR and concurrent TR. The moderate LAE combined with increased LV volume indicate that the current and future risk of complication is elevated. However, given lack of reported clinical signs consistent with congestion pulmonary edema at this stage may not be present. Correlation with three view chest radiographs is suggested. Pimobendan 0.3 mg/kg PO BID along with a weak diuretic such as Spironolactone 1-2 mg/kg PO BID if no evidence of current pulmonary edema is suggested. ACE inhibitor medication may prove beneficial if systemic BP is >130 (not recommended if BP <130). If evidence of pulmonary edema, Lasix combined with Pimobendan would be indicated. Anesthetic risk is considered moderate in this patient yet may be somewhat reduced once on Pimobendan for 3-5 days. Potential anesthetic risk should be discussed prior to anesthesia. If elected judicious IVF use is advised as this patient at elevated risk for fluid overload. Recheck echocardiogram suggested in 4-6 months, sooner if clinical signs of left sided heart disease arise.

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