



PATIENT

Arya Benjamin

SPECIES

Canine

BREED

Mix

SEX

Spayed Female

AGE

11

WEIGHT

48.8

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal
Hospital

REFERRING VET

Dr. Dubos

INVOICE

75231

DATE

5/18/26

PRESENTING CLINICAL SIGNS

Had prev echo 10/25 Congestive heart failure (historical finding) r/o dilated cardiomyopathy , mitral valve dz , mild nocturnal cough Patient was given Torb for u/s because when we were attempting to get blood she had a mild seizure . Current meds Spirolactone 25mg 1 SID Enalapril 10mg 1 SID

Abnormal PE/Chem/CBC/UA Results: WNL

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.0	2.0	NM	1.53	40	72	0.2
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	LAD LA MAX 4 Chamber	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	0.6	48.8	4.6	4.8	--

Cardiac Presentation

The echocardiogram in this patient demonstrated moderate increased **left atrial** dimension with associated mild intraatrial septal deviation on LA max measurement. The cranial and caudal **mitral valve** leaflets presented thickening consistent with endocardiosis. No obvious valvular prolapse. Doppler indicated measurable moderate to significant eccentric MR. Measured MR velocity of 5.0m/sec with possible underestimation. The **left ventricle** presented thicknesses with linear contour and moderate increased LV dimension. 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** was mildly thickened with insufficiency on doppler. Measured TR velocity of approximately 2.0 m/sec with possible mild underestimation. 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 cardiac / pericardial tumors was visible. No obvious arrhythmia. Possible early hepatic congestion on brief hepatic assessment. No evidence of current ascites.



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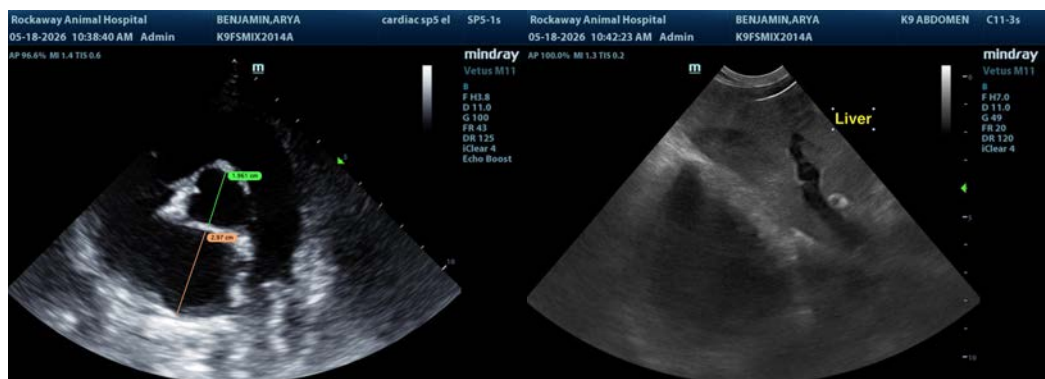
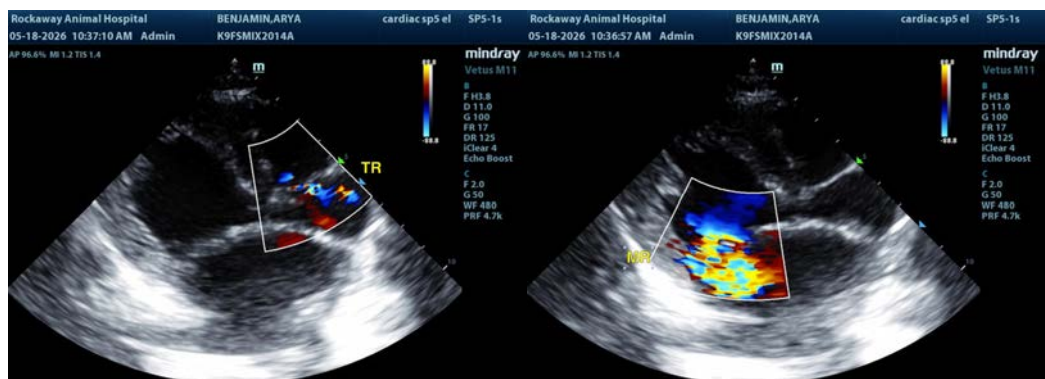
ULTRASONOGRAPHIC FINDINGS

- Mitral valve disease (ACVIM B2/possible emerging B2+).
- Tricuspid insufficiency – Estimated pulmonary pressure gradient based on TR velocity not definitively consistent with clinical pulmonary hypertension.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The degree of LA/LV enlargement indicates that the current and future risk of complication secondary to MR is at least moderately elevated. No evidence of DCM criteria. Possibility of early to emerging pulmonary hypertension given possible evidence of emerging hepatic congestion not excluded. If not currently instituted, Pimobendan 0.3 mg/kg PO BID in conjunction with weak diuretic Spironolactone and current ACE inhibitor medication would be appropriate if patient is not exhibiting evidence of left-sided congestion i.e., normal resting respiration rate, or no evidence of edema on radiographs. If evidence of congestion, Lasix/Spironolactone combination at 1-2 mg/kg would be indicated. Serial sonographic and clinical monitoring going forward is advised. Recheck echo suggested in 6 months, sooner if progressive clinical signs of left-sided heart disease or pulmonary hypertension.

Anesthetic risk is at least moderate. If required, the following protocol is suggested with limited anesthetic time and judicious IV fluid administration. 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.





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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