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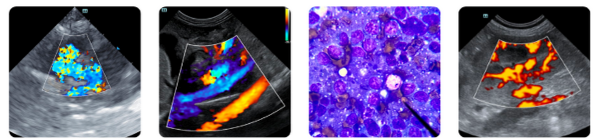


Clinical Sonography & Telecytology

Educational Teleconsultation Services™

PATIENT

Bella Vorhies

SPECIES

Canine

BREED

Pom Mix

SEX

Female Spayed

AGE

16

WEIGHT

5.8

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway AH

REFERRING VET

Dr. Kahn

INVOICE

13436

DATE

4/24/26

PRESENTING CLINICAL SIGNS

History: 2 episodes of fainting /collapsing Unsure if syncope vs seizure based on hx Grade 3/6 L apical systolic HM on exam and heart slightly enlarged on x-rays. No evidence of heart failure at this time.

Current meds: Pepcid, Cerenia

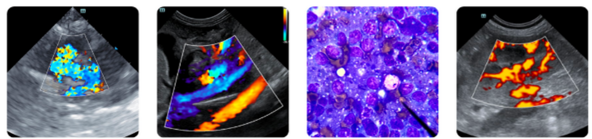
Abnormal PE/Chem/CBC/UA Results: WNL low T4

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	--	--	--	1.4	45	78	0.2
CANINE CARDIAC PARAMETERS	**HR (BPM)**	**AV VMAX (m/s)**	**PV MAX (m/s)**	**BODY WEIGHT (kg)**	**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	1.2	0.7	--	2.4	2.2	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented thickening consistent with endocardiosis. Doppler indicated moderate eccentric MR insufficiency. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. 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. Aortic valve insufficiency noted on doppler. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated thickening with TR noted on doppler. Measured TR velocity <2.0 m/s. 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. Intermittent nonspecific arrythmia present. No evidence of hepatic congestion.



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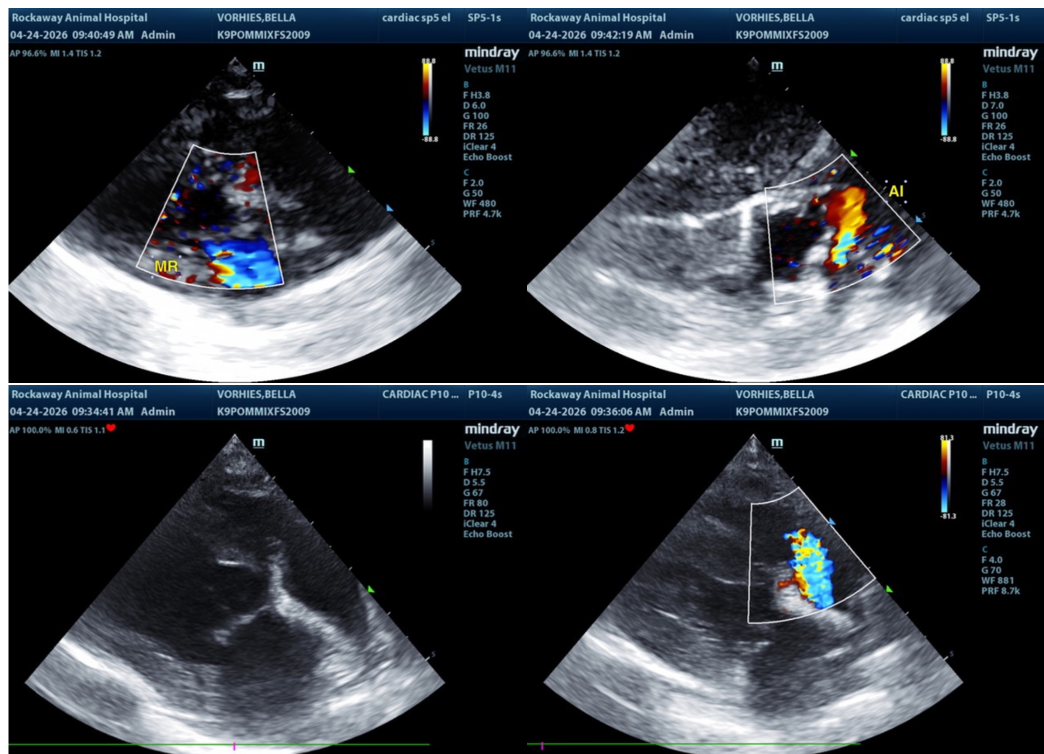
ULTRASONOGRAPHIC FINDINGS

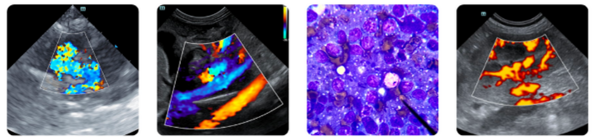
- Chronic mitral valve disease (B1)
- Tricuspid insufficiency – overt evidence of significant clinical pulmonary hypertension not obvious given lack of right heart or pulmonary artery enlargement and lack of hepatic congestion
- Aortic valve insufficiency

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lack of LA enlargement indicates the current and future risk secondary to MR is low. The possibility of mild to emerging pulmonary hypertension is not definitively excluded. No evidence of significant right chamber or pulmonary artery enlargement which would suggest significant or clinical pulmonary hypertension.

Assessment of BP for evidence of hypertension given aortic valve insufficiency is recommended. if present, abdominal ultrasound to assess for contributing pathology is recommended. EFG or Holter monitor recommended for further clarification of intermittent, nonspecific arrythmia as a contributing factor. No obvious indication for cardiac medication. Recheck echo recommended in 4-6 months, sooner if clinically indicated. Anesthetic risk is considered moderate pending additional diagnostics and assessment. If required, the following protocol is recommended with clinical monitoring. 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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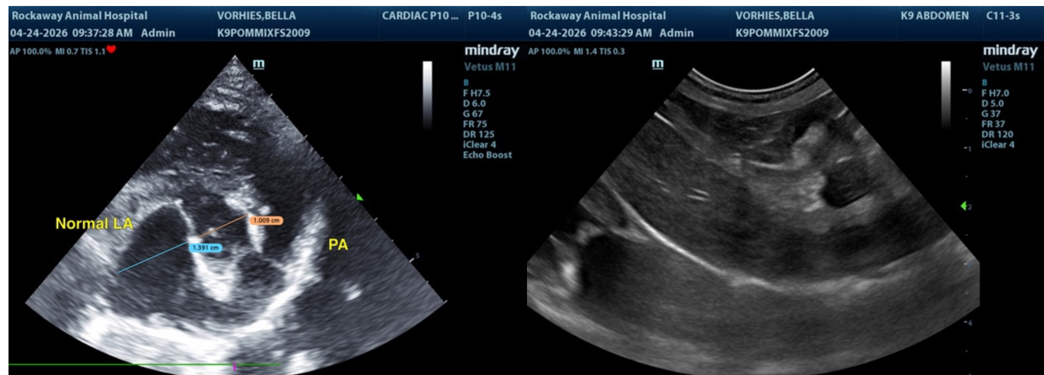

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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