



## PATIENT

Lily Nunez

## SPECIES

Canine

## BREED

King Charles Cavalier

## SEX

Female Spayed

## AGE

13y 9m

## WEIGHT

20.3

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Heather

## HOSPITAL NAME

Animal Care Clinic of  
Flanders

## REFERRING VET

Dr. Hallihan

## INVOICE

13087

## DATE

1/15/26

## PRESENTING CLINICAL SIGNS

History: recheck, coughs when excited, hx of 3-4/6 heart murmur BP was 100 systolic today

Meds: on Vetmedin 2.5 mg 1 tab BID recently d/c lasix traz 50mg for u/s torbugesic 0.3ml IV for further sedation

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	--	--	--	2.0	48	81	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	--	--	20.3	4.2	3.6	--

### Cardiac Presentation

The echocardiogram in this patient demonstrated moderate increased **left atrial** size based on 2 different LA measurement methods. Mild deviation of the intra atrial septum. The cranial and caudal **mitral** valve leaflets presented thickening consistent with endocardiosis more prominent in the septal leaflet. Doppler indicated moderate to significant MR. The **left ventricle** presented moderate increased 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** valvular assessment demonstrated mildly thickened leaflets with mild 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. No evidence of arrhythmia present.



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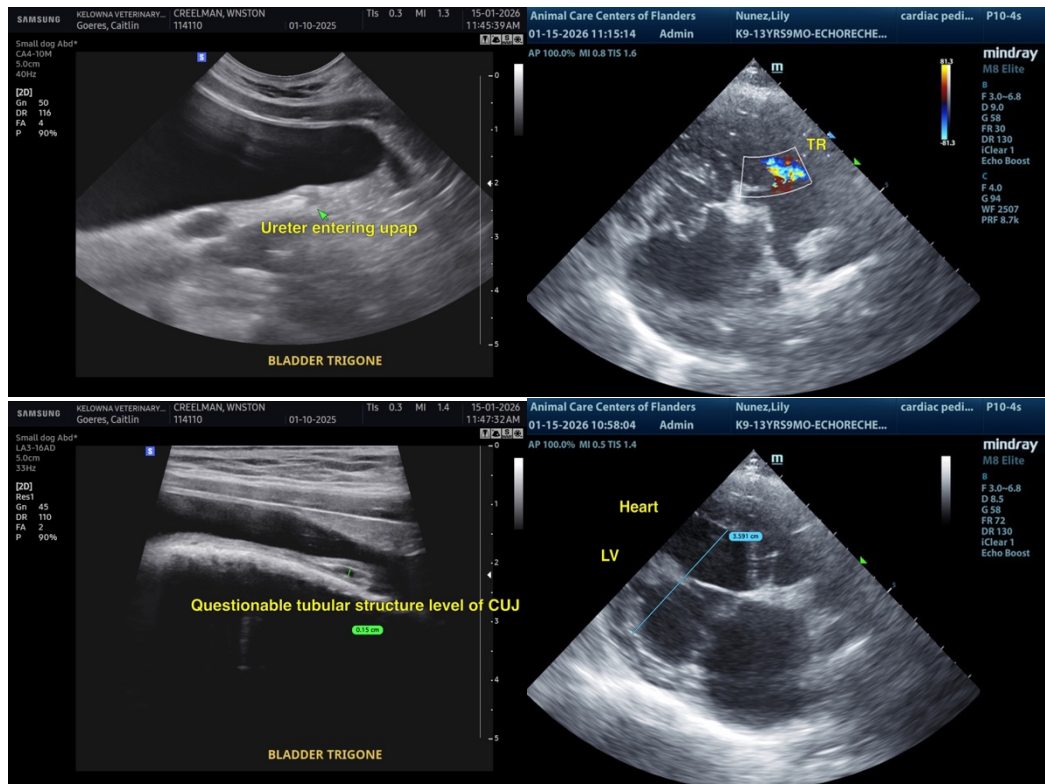
1/15/26

## ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (B2)
- Mild TV insufficiency - no evidence of clinical pulmonary hypertension

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Progression of LA/LV enlargement compared to the previous study indicating the current and future risk of complication secondary to MR is at least moderately elevated. Pimobendan 0.3 mg/kg PO BID is recommended. Assuming patient is currently non-clinical, no indication for additional cardiac medications. Mild mainstream bronchi irritation secondary to LA enlargement possible. As needed antitussive medication Hydrocodone may prove beneficial if persistent coughing. Prognosis is considered highly variable to guarded going forward. Sonographic monitoring is advised. Recheck echo suggested in 6 months, sooner if progressive clinical signs, Baseline monitoring of resting respiration rate going forward is recommended. Anesthetic risk is considered moderately elevated. If required, the following protocol is suggested with limited anesthetic time and judicious IV fluid use. 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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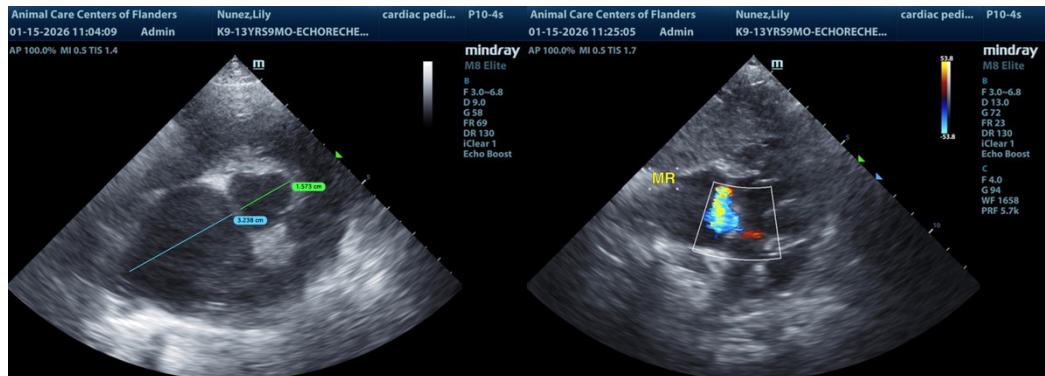
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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](mailto:info@sonopath.com)