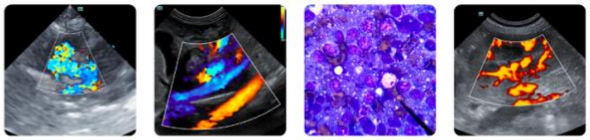


PATIENT

Bella Keeney

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed Female

AGE

13 Years

WEIGHT

13.9 Pounds

INTERPRETED BY

James Wood, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Carey Zumpano

HOSPITAL NAME

Pikesville AH

REFERRING VET

Dr. Carey Zumpano

INVOICE

37160

DATE

5/20/26

PRESENTING CLINICAL SIGNS

History: Patient presented for increased abdominal effort when breathing. 3/6 murmur noted on exam, RR 36 but not in distress. Radiographs did not note any pulmonary edema. Echo performed to characterize and stage heart murmur.

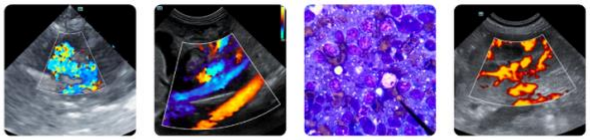
Abnormal PE/Chem/CBC/UA Results: Physical exam noted pendulous abdomen. Abdominal ultrasound noted right adrenal mass, Cushings disease suspected. Lab work noted ALT 121, ALKP 2150, GGT26, urine sg 1013.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	LA long axis	LAmaxN	Ao long axis	LA/AO (Heart Base; Swe, short axis)	LA/AO long axis	LVIDd	LVIDdN
NORMAL PARAMETER		<1.57		<1.6	<2.5		<1.7
PATIENT	2.64	1.5	1.09	1.56	2.42	2.98	1.67
CARDIAC PARAMETERS	**Body Weight (kg)**	**AV VMAX (m/s)**	**PV MAX (m/s)**	**MR VMAX (m/s)**	**TR VMAX (m/s)**	**FS (%)**	**LVIDsN**
NORMAL PARAMETER		0.7-1.7	0.7-1.6			22 - 49%	<0.9
PATIENT	6.3	1.24	0.66	--	--	42.6	0.83
CARDIAC PARAMETERS	**HR (bpm)**	**MV E (m/s)**	**MV A (m/s)**	**MV E/A (m/s)**	**EF (%)**	**IVSdN**	**LVFWdN**
NORMAL PARAMETER						<0.6	<0.6
PATIENT	.94	0.6	1.21	0.46	--	0.44	0.52

Cardiac Presentation

The anterior mitral valve leaflet is moderately thickened with mild eccentric and posteriorly directed mitral valve insufficiency. Leaflet prolapse is not identified. The left atrial size is high/normal. Left ventricular dimension is also high/normal to equivocally dilated. The global left ventricular systolic function is normal. There is delayed relaxation pattern of LV filling. There is normal right atrial size. The tricuspid valve appears normal with no tricuspid valve insufficiency. The right ventricle subjectively



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appears normal in structure and function. The aortic and pulmonary valves have normal appearance and motion, and the corresponding outflow velocities are within normal limits. There is no evidence of clinically relevant pulmonary hypertension based on the lack of changes to the right heart and proximal pulmonary arteries. There is no evidence of pulmonary or aortic valve insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- Myxomatous mitral valve disease, stage B1

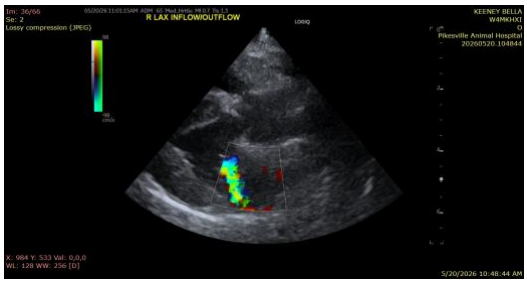
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram showed evidence of myxomatous mitral valve disease. Based on this echocardiogram, the left atrial and left ventricular chamber sizes do not meet the criteria for the initiation of pimobendan- but the left atrial and left ventricular sizes are both high/normal to equivocally dilated. No medications are recommended at this time. The overall risk of adverse cardiovascular outcomes is considered very low in the near future. This is, however, a progressive disease, and as such repeat echocardiogram in 6 months is recommended to screen for progression. Recheck sooner if there is a new cough, increase in the resting RR, or other concern for progressive cardiac disease. Recheck for an echocardiogram in 6 months or sooner if concerns arise.

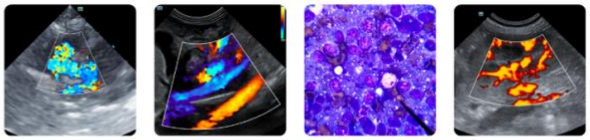
Monitoring

It is very important to catch any clinical signs concerning for emerging CHF as early as possible. The client should be closely monitoring and ideally tracking the sleeping respiratory rate. The sleeping RR should be between 10-30 breaths per minute or less (ideally in the teens or low 20s). **If the resting RR is trending upward**, consistently>35/min while resting/sleeping AND/OR there is a new or progressive cough, the patient should be seen urgent for evaluation to determine if CHF is developing. *RECHECK ASAP for thoracic radiographs if there is a new cough or increase in RR to detect early CHF and avoid ER presentation**

Based on these echocardiographic findings and thoracic radiograph findings, congestive heart failure is not the suspected cause for the underlying cough and underlying airway disease should be prioritized for treatment. Similarly, clinically relevant pulmonary hypertension was not evident on this echo and as such, sildenafil therapy is not recommended at this time.



The information and recommendations provided are based on the images presented by the



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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.

James Wood, DVM, DACVIM (Cardiology)

info@SonoPath.com