



PATIENT

Winston Alicea

SPECIES

Canine

BREED

Dachshund

SEX

Neutered Male

AGE

10 Years

WEIGHT

13 kg

INTERPRETED BY

Tam Mengine, DVM,
DABVP (canine/feline
practice)

IMAGING PERFORMED BY

Dr. Kuzimski

HOSPITAL NAME

Animal Emergency
Hospital Deland

REFERRING VET

Dr. Kuzimski

INVOICE

75188

DATE

5/16/26

PRESENTING CLINICAL SIGNS

Patient presented for respiratory issues. Patient was diagnosed with heart disease about 1 month ago and prescribed Vetmedin and Furosemide. Today has been breathing heavy, not able to get comfortable and restless. Pt also has history of heartworm disease but was treated. HW test performed 1 month ago and per owner came back negative, now on prevention.

Abnormal PE/Chem/CBC/UA Results: Heart: 6/6 systolic heart murmur Lungs: Crackles bilaterally, increased RR and RE, abdominal effort CBC - NSF Chemistry - BUN 45.1, IP 7.0, GLU 188, ALT 127, 425, GGT 30, TBIL 0.6 EPOC - BUN 40, Glu 167 Butorphanol 10mg/ml administered at 0.1mg/kg IV (0.1mL) Blood pressure. 127/65 MAP 81mmHg (sternal, LR, cuff size 3) ECG with consultation

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (m-mode long axis)	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	aliasing	NM	NM	1.9	51	NM	NM
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	154	NM	aliasing	13	3.9	3.8	1.9

Cardiac Presentation

The **left atrium** is significantly enlarged, with no evidence of smoke or thrombus formation. The **left ventricle** is increased in diameter with normal wall thickness and demonstrates good systolic function. The **right atrium** is subjectively of normal size and **right ventricle** dimensions and systolic function are subjectively normal. There is severe **mitral valve** regurgitation and mild **tricuspid valve** regurgitation noted, with irregular thickening of the valve leaflets. There is prolapse of the anterior leaflet of the mitral valve, but no evidence of chordae tendineae rupture in either valve, and no vegetative lesions were seen. Estimates of left ventricular filling pressure appear elevated (Mitral E-vel > 1.0 m/s - aliasing). The **aortic valve** appears normal, and the **pulmonic valve** exhibits normal appearance and function. The **main pulmonary artery** appears mildly dilated (PV:Ao = 1.2) and there is flattening of the interventricular septum in systole – both of which may indicate the presence of pulmonary hypertension. No pericardial/pleural effusion or cardiac masses are seen.

Several seconds of Lead II ECG are also provided for review, and demonstrate a regular sinus rhythm at 160 beats per minute, consistent with a sinus tachycardia. QRS morphology is unremarkable. No ectopic beats are seen.



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PRIMARY FINDINGS

- Myxomatous mitral valve disease – Stage C suspected

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given that the patient is already on furosemide, it is likely that the moderately elevated left atrial size and mildly elevated left ventricular diastolic diameter would be further increased without diuretic therapy. Thus, it is likely that the patient has gone into congestive heart failure. Long-term prognosis in dogs with CHF is variable, but most patients will stabilize for 6 -12 months with therapy, until eventually their disease progresses – most canine patients in CHF succumb to their disease within 12 months.

Current drug doses are not provided, but it is recommended to increase the current furosemide dose by 25 – 30%, and continue dose escalation if needed to control dyspnea (a daily dose of 12 mg/kg/day is generally considered a maximum dose). Pimobendan should be dosed at 0.25 – 0.3 mg/kg PO BID.

If renal values are normal or nearly normal after one week of the new furosemide dose, then the addition of an ACE inhibitor (enalapril at 0.5mg/kg q24h or benazepril at 0.25mg/kg q24h) and spironolactone (1mg/kg BID) would also be recommended.

The dilated pulmonary artery and systolic septal flattening may indicate pulmonary hypertension, though additional echocardiographic assessment would be needed to confirm this. If present, pulmonary hypertension is most likely secondary to congestive heart failure, and does not warrant treatment unless syncopal episodes occur – it is preferable to control pulmonary pressures by treating the underlying cause whenever possible.

Daily monitoring of the sleeping respiratory rate at home is recommended, and if the sleeping respiratory exceeds 35 breaths per minute, then a prompt recheck physical examination and chest radiographs to assess for pulmonary edema would be warranted.

The patient may benefit from a cardiac diet such as Purina’s “CardioCare” veterinary diet. Salty treats should be avoided.

If the patient is doing clinically well, then recheck echocardiogram is recommended in 6-8 months. MMVD is a progressive disease, and it can be expected that the patient’s disease will progress over time.

Anesthesia should be avoided if at all possible. If an anesthetic procedure must be performed, then referral to a facility with a board-certified anesthesiologist or cardiologist on staff is recommended.





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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.

Tam Mengine, DVM, DABVP (canine/feline practice)

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