


PATIENT

Zoe Becker

SPECIES

Canine

BREED

Dachshund

SEX

Spayed female

AGE

14 years 5 months

WEIGHT

5.71 kg

INTERPRETED BY

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

IMAGING PERFORMED BY
 Dr. Evoniuk

HOSPITAL NAME

 State Avenue
 Veterinary Clinic

REFERRING VET

Dr. Evoniuk

INVOICE

10171ag

DATE

03/16/2022

PRESENTING CLINICAL SIGNS

History: QAR. Eyes lenticular sclerosis. Ears clear. Teeth- mobile/root exposure of the R mandibular K9. Missing teeth, calculus of the remaining teeth. Heart G3 murmur. Lungs clear. Previous IVDD- no active concerns.

Abnormal PE/Chem/CBC/UA Results: ALP- 254*

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	NM	NM	NM	2.0	55.9	87.9	0.2
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	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	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	NM	1.0		4.1	3.4	NM

Cardiac Presentation

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. Mild subjective deviation of the intra atrial septum towards the right atrium consistent with increased left atrial pressure was observed. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis, more prominent in the anterior mitral valve leaflets with concurrent mild anterior leaflet prolapse. Doppler indicated moderate eccentric insufficiency. The left ventricle presented thicknesses with linear contour with increased left ventricle volume 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. The right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. Tricuspid valvular assessment demonstrated adequate linear morphology. 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 infiltrative disease was visible. The cranial mediastinum and pericardial regions were free of masses in the visible window.



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ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2) with mild anterior mitral valve leaflet prolapse.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is secondary to chronic degenerative valvular changes with mild anterior mitral valve leaflet prolapse and secondary eccentric mitral valve insufficiency. No other clinical issues such as systolic dysfunction or obvious evidence of clinical pulmonary hypertension were noted. The moderate LA enlargement indicates that the current and future risk for secondary complication is elevated. Given this presentation, Pimobendan 0.3 mg/kg PO BID is warranted at this stage as this medication may help prolong cardiac changes associated with mitral valve insufficiency even if the patient is not clinical.

Further sonographic monitoring is required for additional prognosis. Baseline monitoring of resting respiration rate at home is recommended. Baseline BP assessment is suggested.

Anesthetic risk in this patient is considered elevated. If anesthesia is required, the following protocol is suggested with judicious IVF use as this patient may be at risk for fluid overload.

Recheck echocardiogram is suggested 6 months, sooner if clinical signs consistent with left sided heart disease arise.

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.

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.

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