



PATIENT

Ricky Tuthill

SPECIES

Canine

BREED

Jack Russell Terr

SEX

NN

AGE

12 years

WEIGHT

17.8 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

Dr. Swanson,
Waukegan Pet

INVOICE

12611

DATE

11/15/21

PRESENTING CLINICAL SIGNS

Presented with dental disease and tumor on upper left thigh. Noted a 4/6 systolic heart murmur. Would like Echo first to know if there is any anesthesia risks prior to surgery.

Abnormal PE/Chem/CBC/UA Results: BW WNL

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	5.0	1.7	1.4	1.63	47.7	80.8	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	137	1.3	1.2		3.7	3.3	

Cardiac Presentation

The echocardiogram in this patient demonstrated mildly enlarged **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable 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. 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. No other clinical issues such as systolic dysfunction or overt clinical pulmonary hypertension were noted.



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ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Chronic mitral valve disease (ACVIM B2)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The mitral valve Insufficiency measurement may potentially be underestimated in this patient, given its eccentric direction. The mild left atrium enlargement indicates that the risk of future complication is mildly elevated yet the prognosis at this stage is highly variable. In a nonclinical patient without evidence of significant left atrial enlargement or left heart changes, medications are not clearly indicated. Conservative monitoring at this time would be appropriate with an initial recheck echocardiogram suggested in 6 months, sooner if clinical signs consistent with heart disease develop. No overt anesthetic contraindications. However, this patient may be at increased risk for fluid overload. The following anesthetic protocol is recommended with judicious to appropriate IV fluid use under anesthesia.

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.

<https://www.antechdiagnostics.com/cadet-braf>



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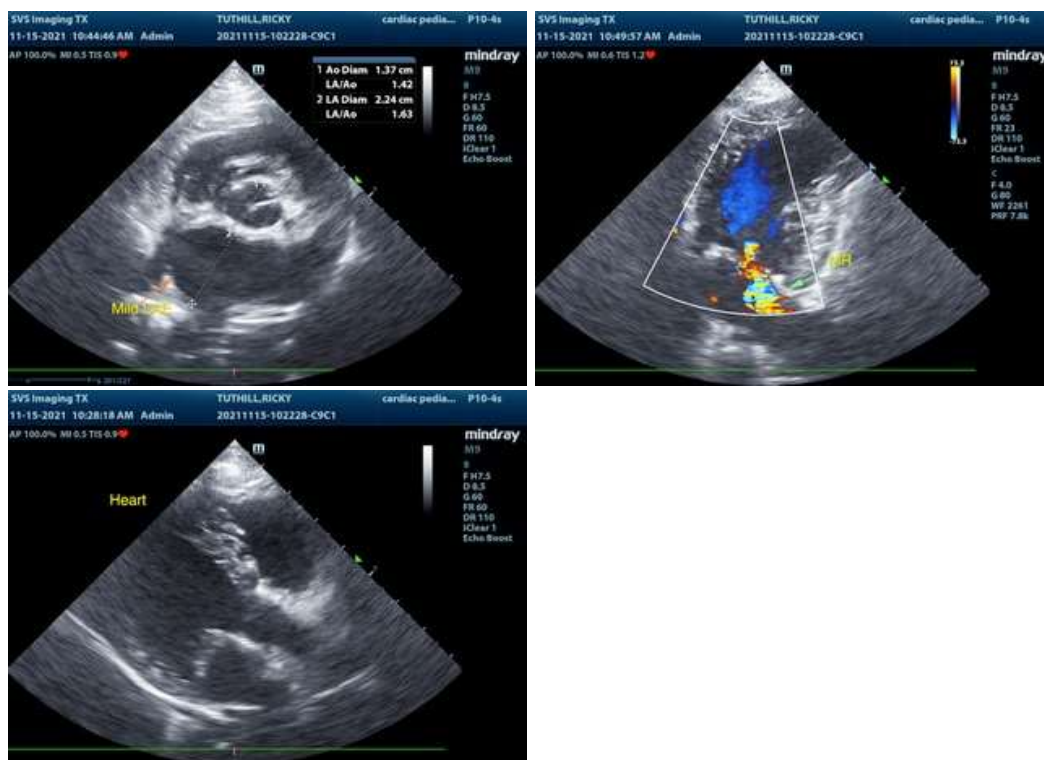
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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