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Clinical Sonography & Telecytology
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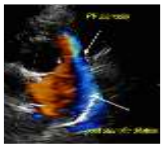
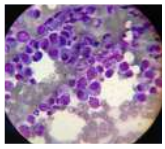
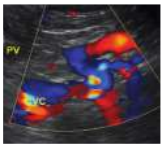

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1-800-838-4268 info@sonopath.com

PATIENT

Rudy Surmach

SPECIES

Canine

BREED

Schnauzer / Poodle

SEX

FS

AGE

11 years

WEIGHT

9.5 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging

REFERRING VET

Dr. Shapiro, Animal Health Center of Wheeling

INVOICE

12293

DATE

9/23/21

PRESENTING CLINICAL SIGNS

-Noted 4-5/6 heart murmur. She is on Enalapril. This echo is for pre-dental anesthesia.

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	5.5	<1	NM	1.7	50	85	0.16
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	108	1.0	<1		2.7	2.4	

Cardiac Presentation

The echocardiogram in this patient demonstrated mildly enlarged **left atrial** size based on 3 different LA measurement methods. Doppler Indicated measurable eccentric inefficiency. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. Mild prolapse of the septal mitral valve leaflet was present. No evidence of chordae tendineae rupture. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. Color doppler assessment revealed aortic valve insufficiency. 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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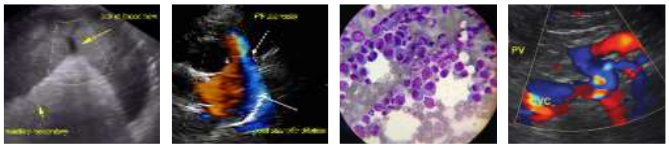

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ULTRASONOGRAPHIC FINDINGS

Primary Findings

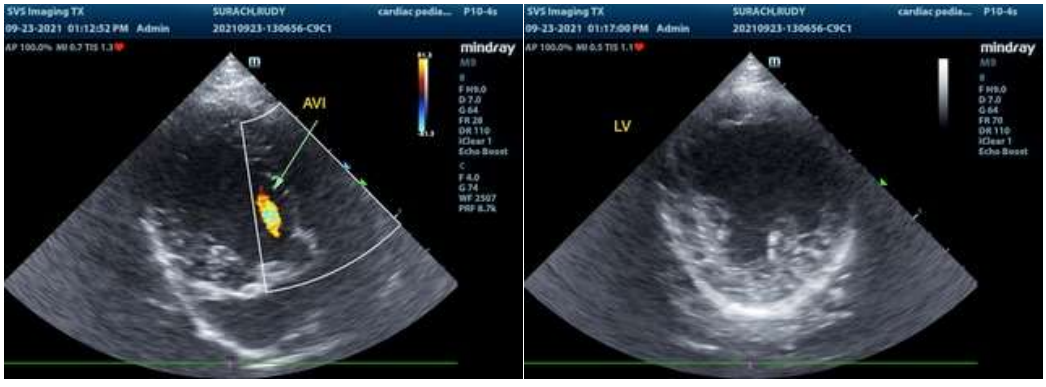
- Chronic mitral valve disease (ACVIM B2)
- Mild septal mitral valve leaflet prolapse
- Aortic valve insufficiency

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes and mild septal leaflet prolapse resulting in secondary eccentric mitral valve insufficiency. The lack of significant left atrium enlargement indicates that the risk of future complication at this stage is relatively low, although the prognosis is highly variably. This patient is considered borderline for Pimobendan therapy based on Epic Study Criteria. However, Pimobendan may be considered as this medication may help prolong cardiac changes associated with mitral valve insufficiency. Screening blood pressure is recommended, given the presence of aortic valve insufficiency. Periodic baseline monitoring of resting respiration rate would be appropriate. Anesthetic risk Is considered relatively mild, yet this patient may be prone to fluid overload. If anesthesia is needed, the following protocol Is suggested with judicious IV fluid use under anesthesia. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs consistent with heart disease develop.

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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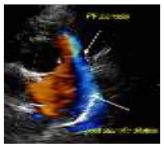
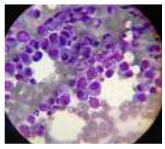
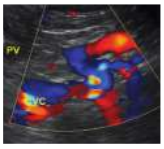

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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