



PATIENT PRESENTING CLINICAL SIGNS

Archie Brancato Respiratory distress.
 Abnormal PE/Chem/CBC/UA Results: Congestive heart failure. Has been on enalapril and lasix for 2 weeks.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Shih Tzu

SEX

Neutered Male

AGE

13 Years

WEIGHT

Neutered Male

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	<2.0	NM	1.75	54.9	86.4	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				
PATIENT	164	1.0	0.9		4.3	3.52	

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Runnells, RVT

HOSPITAL NAME

SVS Imaging Kansas City

REFERRING VET

Dr. Jonathon Renfro

INVOICE

33421

DATE

12/14/21

Cardiac Presentation

The echocardiogram for this patient demonstrated moderate **left atrial** enlargement with subjective horizontal component based on two different LA measurements. Deviation of the intraatrial septum towards the right atrium noted, suggestive of increased left atrial pressure. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with maintained linear contour with increased left ventricular volume. 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. Minor insufficiency noted on color doppler assessment. 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.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2/C)
- Moderate left atrial enlargement with subjective horizontal component
- Normal RA/RV



PATIENT

Archie Brancato

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

13 Years

WEIGHT

Neutered Male

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Runnells, RVT

HOSPITAL NAME

SVS Imaging Kansas
City

REFERRING VET

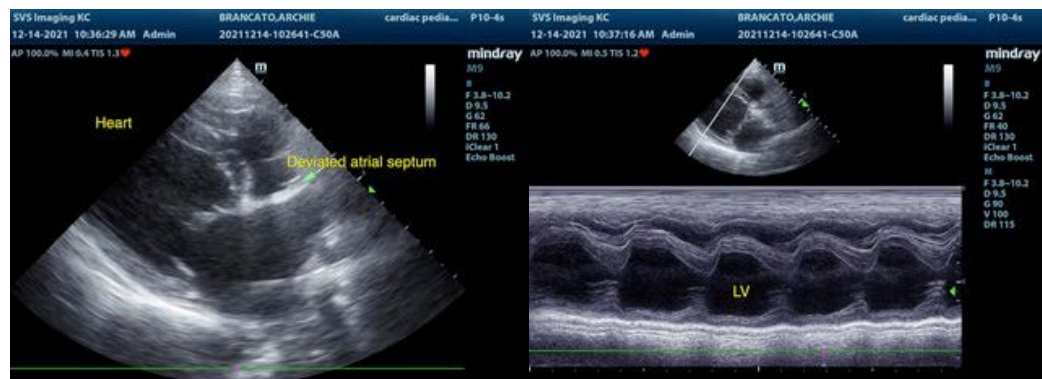
Dr. Jonathon Renfro

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is consistent with chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The moderate left atrial enlargement with subjective horizontal component as well as overall increased left heart volume indicate that the risk of current and future complication going forward is elevated. No other clinical issues such as systolic dysfunction or overt evidence of clinical pulmonary hypertension were noted.

Given the degree of left atrial enlargement, the respiratory issues in this patient could certainly be secondary to congestive left heart failure. However, respiratory signs in this patient may be multifactorial in origin with potential contribution to lower airway disease or mainstem bronchi compression owing to left atrial enlargement.

Pimobendan 0.3 mg/kg PO BID, continued diuretic 1-2 mg/kg PO BID, and hydrocodone with as needed respiratory therapy is warranted. Assessment of systemic blood pressure as well as monitoring of renal parameters is suggested. Recheck echocardiogram suggested in 4-6 months, sooner if persistent/progressive cardiorespiratory signs are noted.



INVOICE

33421

DATE

12/14/21



PATIENT

Archie Brancato

SPECIES

Canine

BREED

Shih Tzu



SEX

Neutered Male

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.

AGE

13 Years

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.

WEIGHT

Neutered Male

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Runnells, RVT

HOSPITAL NAME

SVS Imaging Kansas
City

REFERRING VET

Dr. Jonathon Renfro

INVOICE

33421

DATE

12/14/21