



PATIENT PRESENTING CLINICAL SIGNS

Buster Russo

History: pre-anesthetic echo for enucleation due to glaucoma. Grad 2/6 systolic murmur. On apoquel and cytopoint

SPECIES

Canine

BREED

Shih Tzu

SEX

Intact male

AGE

14 years

WEIGHT

18 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden, RVT

HOSPITAL NAME

Blairstown AH

REFERRING VET

Dr. Clegg

INVOICE

40241

DATE

10/21/22

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated normal **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 normal 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** insufficiency was noted and measured 3.5 m/sec. 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.

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	5.6	3.5	1.29		46	79	NM
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	130	1.0			2.9	3.01	



PATIENT ULTRASONOGRAPHIC FINDINGS

Buster Russo Mitral and tricuspid insufficiency.

Stage B1 valvular disease with mild to moderate pulmonary hypertension given the TR velocities.

SPECIES

Canine

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

BREED

Shih Tzu

There is mild anesthetic risk in this patient mainly owing to pulmonary hypertension, yet no volume overload was present in the left heart. The hepatic veins were not dilated and there was no evidence of right sided failure. I recommend Torbutrol pre med, Propofol induction, Isoflurane maintenance or similar. I recommend to ensure adequate respiratory ventilation in this patient and optimized pulse oximetry values during the procedure. Minimal surgical time is recommended. There is no treatment for pulmonary hypertension is recommended at this time. A recheck is recommended in 6 months or earlier if murmur grade increases or clinical signs initiate. Clinical signs of pulmonary hypertension may be primarily exercise intolerance issue.

SEX

Intact male

AGE

14 years

The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflo maintenance or similar protocol if anesthesia is desired. Blood pressure recommended if not already performed and target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 6 months, earlier if murmur grade increases or clinical signs initiate.

WEIGHT

18 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden, RVT

HOSPITAL NAME

Blairstown AH

REFERRING VET

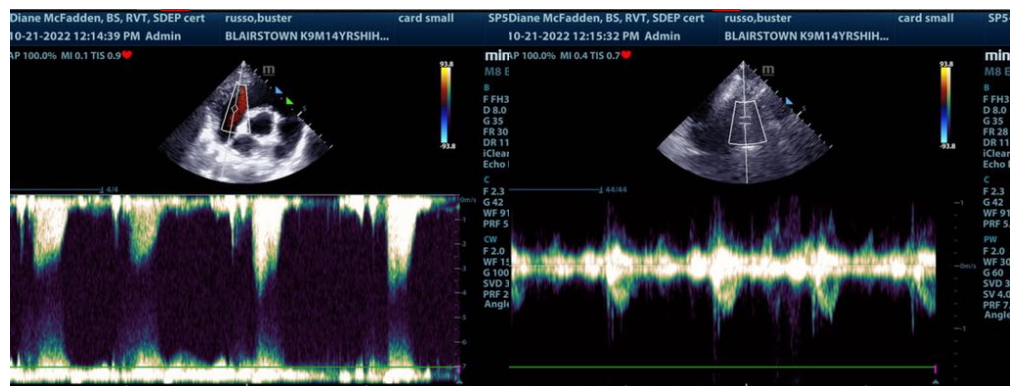
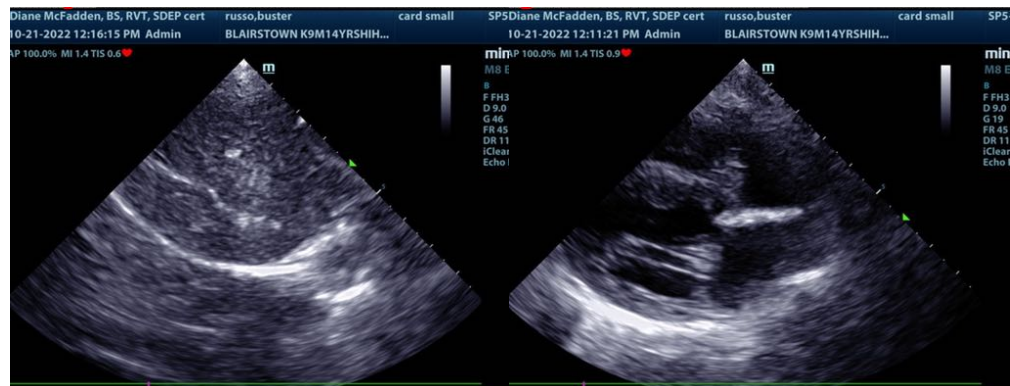
Dr. Clegg

INVOICE

40241

DATE

10/21/22





PATIENT

Buster Russo

SPECIES

Canine

BREED

Shih Tzu

SEX

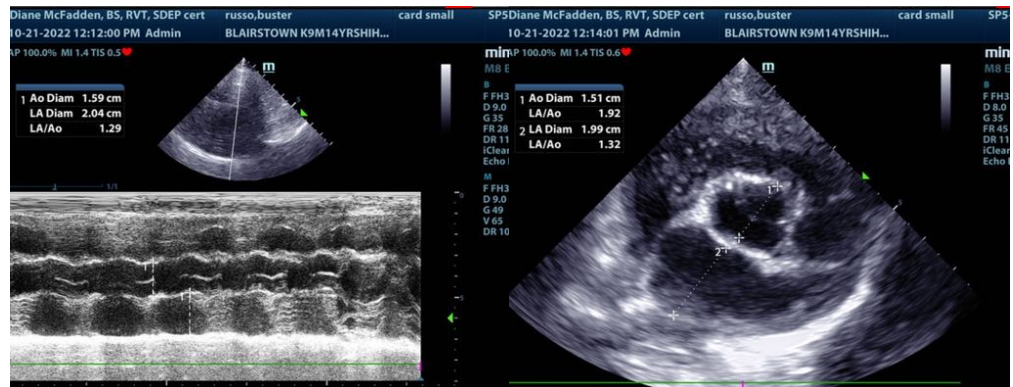
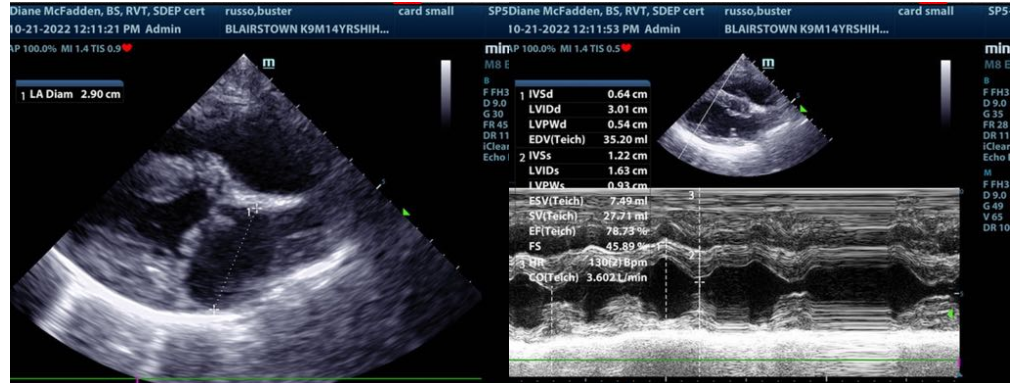
Intact male

AGE

14 years

WEIGHT

18 lbs



INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden, RVT

HOSPITAL NAME

Blairstown AH

REFERRING VET

Dr. Clegg

INVOICE

40241

DATE

10/21/22

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
Info@SonoPath.com