



PATIENT PRESENTING CLINICAL SIGNS

Bam Bam Evelyn Grade 4/6 murmur, coughing, heavy breathing
 Abnormal PE/Chem/CBC/UA Results: BP 134/101(119), 158/118(143), 114/92(100), 131/95(113)

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Pomeranian

SEX

Intact Male

AGE

15 Years

WEIGHT

10

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

JK

HOSPITAL NAME

Hamburg Vet Clinic

REFERRING VET

Dr. Shaw

INVOICE

23419

DATE

7/17/23

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	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.0	2.5	1.3	1.5	65	93	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	92	--	1.00	--	2.7	2.53	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. Prolapse of the anterior mitral valve leaflet was noted. 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** insufficiency was noted. 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. The hepatic veins were slightly dilated in this patient. The tricuspid insufficiency velocity may be underestimated.

ULTRASONOGRAPHIC FINDINGS



PATIENT

- Stage B-1 valvular disease
- Potential early pulmonary hypertension yet this is not responsible for the cough.

Bam Bam Evelyn

SPECIES

Canine

BREED

Pomeranian

SEX

Intact Male

AGE

15 Years

WEIGHT

10

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

JK

HOSPITAL NAME

Hamburg Vet Clinic

REFERRING VET

Dr. Shaw

INVOICE

23419

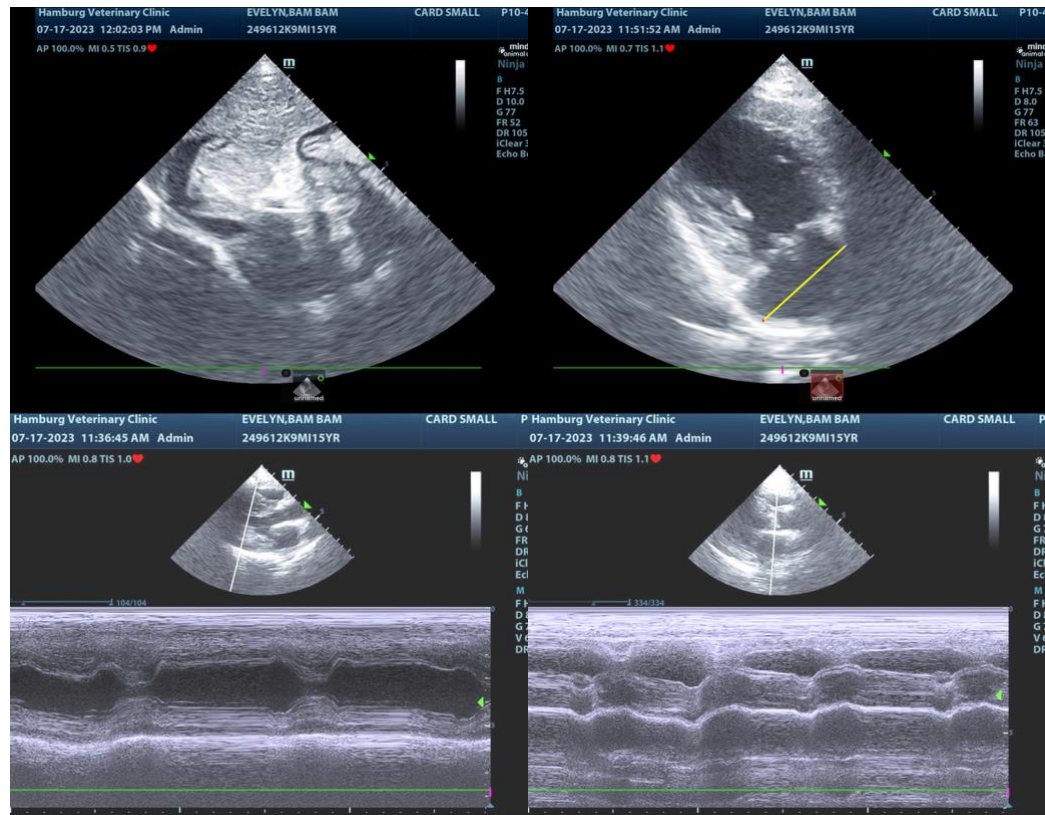
DATE

7/17/23

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cough is currently not cardiogenic at this time. Clinical signs of pulmonary hypertension are cyanosis upon exercise and lethargy. If either of those signs are present, then sildenafil could be considered (1 mg/kg BID), however, there is no consensus on its use at this time. Primary respiratory protocol is recommended.

The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflor 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.





PATIENT

Bam Bam Evelyn

SPECIES

Canine

BREED

Pomeranian

SEX

Intact Male

AGE

15 Years

WEIGHT

10

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

JK

HOSPITAL NAME

Hamburg Vet Clinic

REFERRING VET

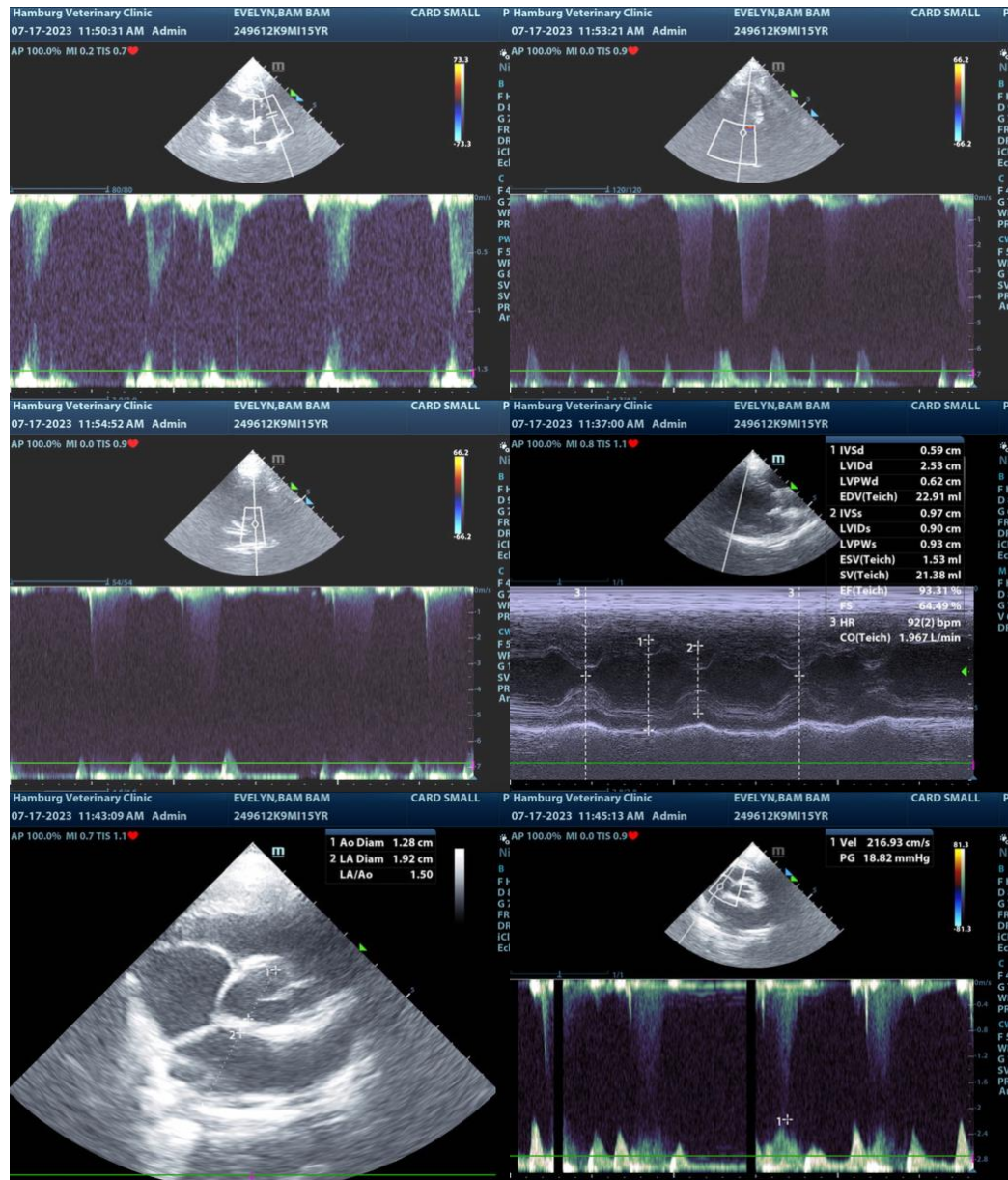
Dr. Shaw

INVOICE

23419

DATE

7/17/23



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



PATIENT

Bam Bam Evelyn

SPECIES

Canine

BREED

Pomeranian

SEX

Intact Male

AGE

15 Years

WEIGHT

10

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

JK

HOSPITAL NAME

Hamburg Vet Clinic

REFERRING VET

Dr. Shaw

INVOICE

23419

DATE

7/17/23