



PATIENT PRESENTING CLINICAL SIGNS

Mia Hahn Patient presents to the hospital to follow up after previous appointment due to breathing heavily and coughing. Patient was previously hospitalized with oxygen therapy and sent home when she improved. She was doing better, but started coughing and would have coughing episodes where she would pee on herself. At the moment, she is doing a lot better while taking a course of antibiotics and theophylline. Patient is currently taking Pimobendan and Furosemide for cardiac condition.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Pomeranian

****15 still images and 3 videos submitted.**

SEX

Spayed Female

AGE

9 Years

WEIGHT

6.4 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

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		NM	2.9	58	88	0.1
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	--	--	0.5		3.6	3.19	

IMAGING PERFORMED BY

Dr. Kim

HOSPITAL NAME

Ridgefield Park AH

REFERRING VET

Dr. Kim

INVOICE

24905

DATE

8/24/21

Cardiac Presentation

The echocardiogram for this patient presented excessive **left atrial size** expressed both in the LA/AO and LA max measurements Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. **Left ventricular** dilation noted. 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 noted at 3.5 m/sec, consistent with moderate pulmonary hypertension. 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. Slight hepatic vein dilation noted.

ULTRASONOGRAPHIC FINDINGS

- Advanced Stage B2 to early C1 valvular disease with concurrent pulmonary hypertension



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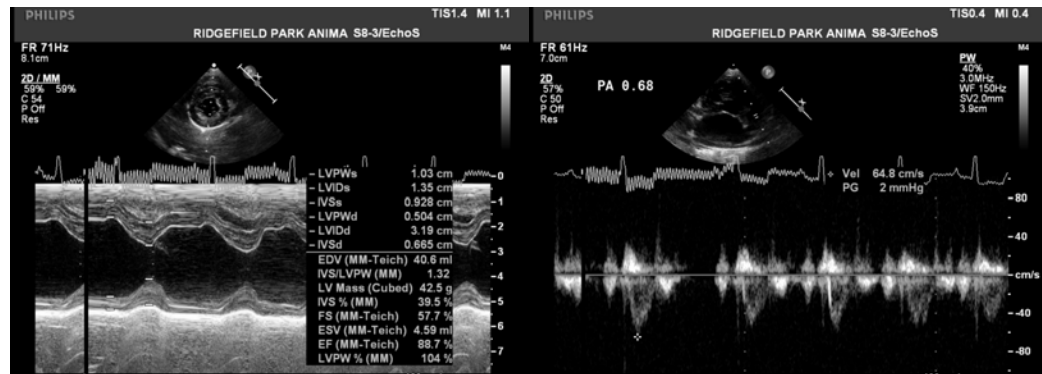
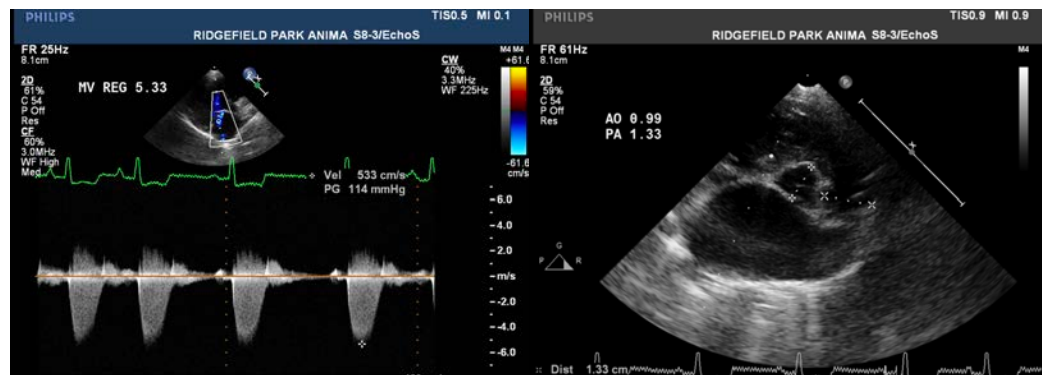
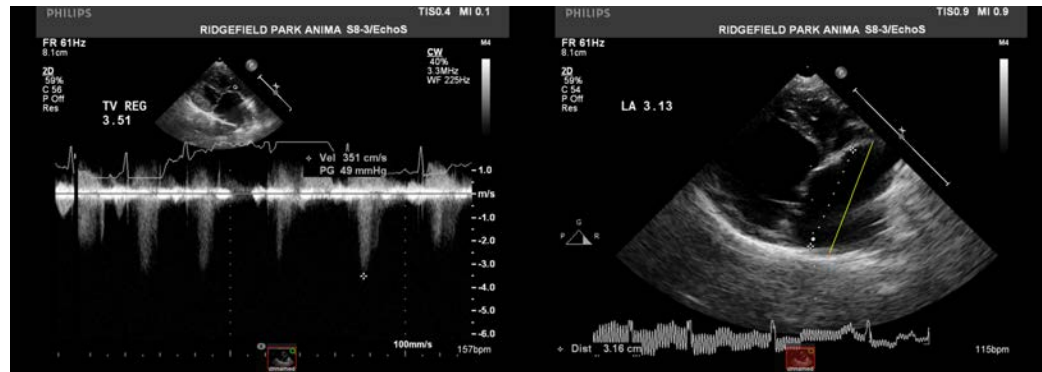
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The coughing is likely owing to mainstem bronchus impingement by volume overload of the left atrium. I recommend adding Spironolactone to the current protocol at 1-2 mg/kg BID and ACE inhibitor 0.5 mg/kg SID progressing to BID. Blood pressure measurements recommended. If coughing continued and/or basal respiratory rate is >20/min, then increasing Lasix dose could also be considered. Recheck echo in 2-3 weeks. Assessment of BUN, creatinine, USG, chest radiographs and blood pressure as well as clinical exam ideal in 7-10 days. Basal respiratory rate should be <20/min. The patient may necessitate Sildenafil in the future.





PATIENT

Mia Hahn

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.

SPECIES

Canine

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.

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Pomeranian

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