



PATIENT PRESENTING CLINICAL SIGNS

Byul Choi HR 75 Sinus Bradycardia: Sinus Arrhythmia On X-Ray: VHS 12. LA Enlargement Need second opinion.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Cocker Spaniel

SEX

Spayed Female

AGE

11 Years

WEIGHT

20.7 Pounds

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			NM	1.33	56.4	88	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	EST 60	1.67	1.6		2.76	2.96	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** 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. The cranial **mediastinum and pericardial and extra-cardiac** regions were free of masses in the visible window. Bradycardia was present.

ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function, no evidence of systolic dysfunction or left or right heart chamber enlargement
- Bradycardia – likely sinus bradycardia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of significant cardiomyopathy, including normal left and right heart chamber sizes, normal overall systolic function, and without evidence of clinical pulmonary hypertension. No evidence of pericardial disease such as effusion or overt pericardial masses. The bradycardia is non-specific with potential etiologies including increased vagal tone (idiopathic systemic disease such as GI disease,

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Kim

HOSPITAL NAME

Ridgefield Park AH

REFERRING VET

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PATIENT

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respiratory disease, or other), endocrine disease (hypothyroidism or other), or potential nodal disease. No indication for medications used to treat structural cardiomyopathy. If not done, full ECG assessment +/- holter monitor and cardiology consult suggested. Potentially an atropine response test could be considered.

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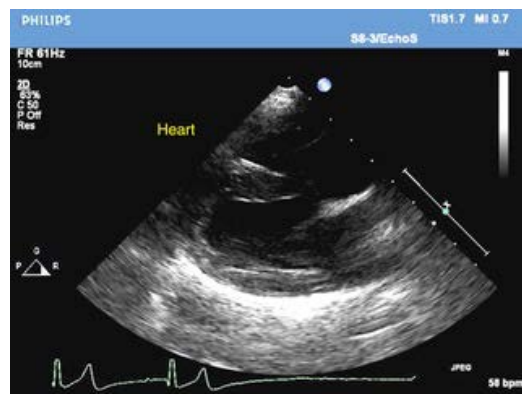
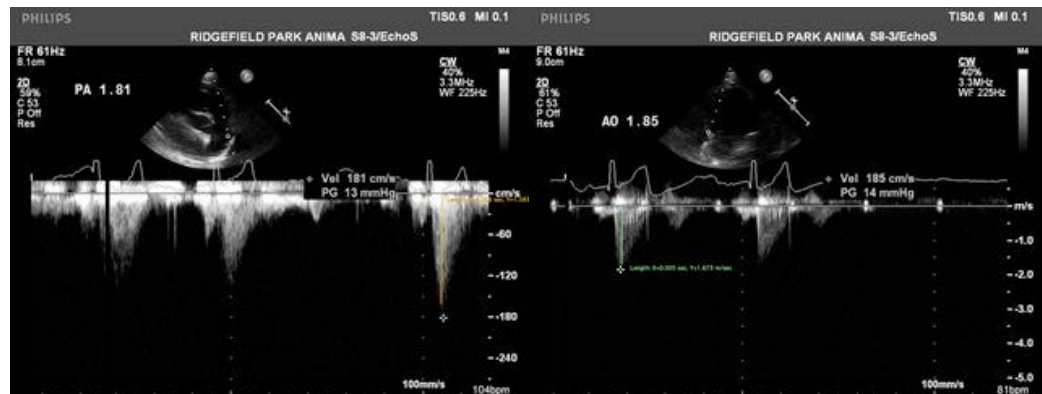
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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