



PATIENT

Can Kornie Unidad
Canina Policia de PR

SPECIES

Canine

BREED

Belgium Malinois

SEX

Male Intact

AGE

9 years

WEIGHT

64lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

G. Ferrer, DVM

HOSPITAL NAME

Paseos Veterinary
Center

REFERRING VET

Dr. Carrasquillo

INVOICE

22487

DATE

2/10/22

PRESENTING CLINICAL SIGNS

History: Recheck echo.

-Pertinent previous echo findings (1/2022 KB): Residual PCE following the tap. No obvious masses visualized. Mild MR and TR, borderline mild LV dysfunction. LV: 4.5/3.49, FS: 23%.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with mild prolapse into the left atrial lumen. No mitral regurgitation with no left atrial dilatation. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with no tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses. Hyperechoic right AV groove.

CARDIAC CHART

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	NA	NA	NM	1.2	29	56	1.2
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	BELOW	BELOW	BELOW	BELOW
PATIENT	62	1.3	0.93	29.0	3.1	4.5	3.2
*Normal chamber parameters expressed as a mean value (SD)							
BODY WEIGHT DEPENDENT PARAMETERS							
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>							
Adapted from June Boon, Veterinary Echocardiography, 1998							
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435							
Hansson et al, Vet Rad and Ultrasound 2002							
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995							
	5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)			
	10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)			
	15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)			
	20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)			
	25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)			
	30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)			
	35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)			
	40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)			
	50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)			

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac dimensions and function are seen on this exam. Compared to the prior study, the cardiac function is mildly improved and now falls within the normal limits for this signalment. This may reflect a volume change, as the previous echo was done following pericardiocentesis. Regardless, what is seen here is unremarkable and is not consistent with a true cardiomyopathy.

No obvious cardiac tumors are seen on the prior or current exam. It is important to note that small masses are easily missed in the absence of effusion and the previous exam is considered



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more sensitive. That being said, this is certainly encouraging. In a senior dog, the 2 most common causes of pericardial effusion include idiopathic and neoplastic, and neoplasia remains a concern despite no obvious tumors. Consider referral for advanced imaging such as a thoracic CT.

Regardless of underlying cause, it is impossible to predict if and when pericardial effusion will recur. Some patients with idiopathic effusion need to be tapped between 1 and 3 times then never again. Other patients may experience frequent recurrence with either HSA or idiopathic disease. If the effusion reoccurs frequently, a surgical procedure called a pericardiectomy can be discussed. Ideally mild activity restriction is advised, which in a working dog may be difficult.

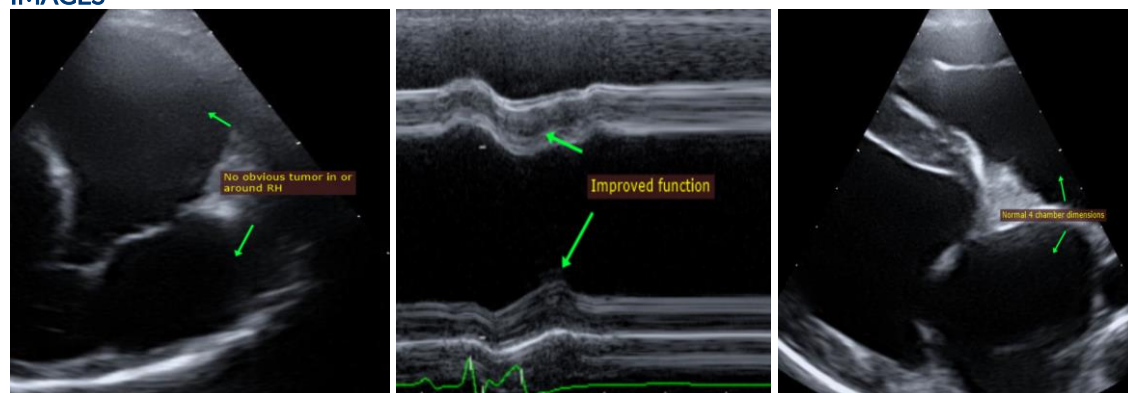
This patient will always be at risk for signs of recurrent pericardial effusion including pale gums, difficulty breathing, lethargy/collapse, cough, exercise intolerance, abdominal distention, vomiting, inappetence and/or sudden death. If you notice any of these symptoms, urgent evaluation should be sought.

PLAN

No medications are indicated. Over the counter herbal supplement Yunnan Baiyao may help decrease risk of bleeding, however true benefit is speculative (1 capsule PO BID).

A recheck of the right heart is recommended in 1-2 months to screen for small masses that are not apparent on this exam. Alternatively, advanced imaging can be considered, such as a thoracic CT scan.

IMAGES



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. This report was generated using transcription software, and minor dictation errors may be present. 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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