

PATIENT

Scarlett Kerkhoff

SPECIES

Canine

BREED

Retriever Mix

SEX

Female Spayed

AGE

12 years

WEIGHT

52.4lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

A. Nicastro, DVM

HOSPITAL NAME

VCA Westbury Animal
Hospital

REFERRING VET

Dr. Cantrell

INVOICE

46868

DATE

2/17/26

PRESENTING CLINICAL SIGNS

History: Presented 1/12/26 for lethargy and anorexia; was diagnosed with hemopericardium and had pericardiocentesis performed. Patient has returned to normal. Occasional cough but eating again and normal energy.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild thickening of the anterior leaflet of the mitral valve with no obvious prolapse into the left atrial lumen. No mitral regurgitation with normal left atrial dimension. Normal LV diameter with adequate myocardial function. Normal LV wall thickness. Tricuspid valve appears mildly thickened with no TR. No obvious tumor in the RA or right auricle. The right AV groove is concerning on the long axis view with a round lesion suspected. This is difficult to confirm on ancillary views. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic outflow velocities; laminar flow. No pericardial or pleural effusion seen.

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	1.4	1.0	30	56	0.3
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	NM	1.8	1.0	23.8	2.7	3.3	2.1
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				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

The 2 most common causes of hemorrhagic pericardial effusion in a large breed dog without structural disease are idiopathic and neoplastic. Less commonly, pericarditis (an inflammatory condition) or a bleeding disorder should also be considered. Idiopathic by definition means that a cause cannot be found. If diagnosed (a rule out diagnosis), the long-term prognosis with idiopathic effusion has the potential to be good.



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Regarding neoplasia, the most common types of cardiac cancer-causing pericardial effusion include hemangiosarcoma (HSA), chemodectoma, or mesothelioma. The prognosis varies a great deal depending on the underlying type of cancer. In a 7-year-old dog, HSA should be considered above all other differentials, as this is the most common cause. Cardiac HSA carries a poor to grave prognosis, with a mean survival time of 3-6 months.

Based on the findings of today's echocardiogram, there is concern for a tumor in the right AV groove. This is common place for HSA to be found. Ultrasound is quite insensitive and it is important to note the finding is somewhat inconclusive. A reevaluation is recommended in the next 1-2 months, as often small masses will become apparent in that period of time, or a thoracic CT scan could be considered. Even without definitive identification, I am highly suspicious for neoplasia in this case given the signalment. Prognosis is guarded, and any dog with effusion carries risk for development of malignant arrhythmias and sudden death at home.

Further evaluation may also help shed light on a definitive diagnosis. An abdominal ultrasound should be considered to screen for ancillary lesions, in addition to screening CXR to look for metastasis. Advanced imaging with an attending Cardiologist can be considered, as well as discussion of a thoracic CT/MR to screen the external surface of the heart.

Regardless of underlying cause, it is impossible to predict if and when pericardial effusion will recur/increase and potentially cause clinical signs. 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 and no malignancy remains identified, a surgical procedure called a pericardectomy can be discussed. Finally, dogs with effusion are at risk for malignant ventricular arrhythmias, and a baseline ECG is recommended. Sudden death is always a possibility in these cases unfortunately.

No cardiac medications are clearly indicated at this time. Over the counter herbal supplement Yunnan Baiyao (aka Yunnan Paiyao) may help decrease risk of bleeding, however true benefit is speculative (1 capsule PO BID). Please monitor at home for signs of worsening pericardial effusion including pale gums, difficulty breathing, lethargy/collapse, exercise intolerance, abdominal distention, vomiting, and/or inappetence. If you notice any of these symptoms, patient should be evaluated immediately by a veterinarian.

PLAN

Full systemic screening as discussed. Consider referral for advanced thoracic imaging.

If referral is declined, recommend a recheck echocardiogram in 1 month to reassess the surface of the heart and screen for recurrent effusion, sooner if any recurrence of clinical signs.



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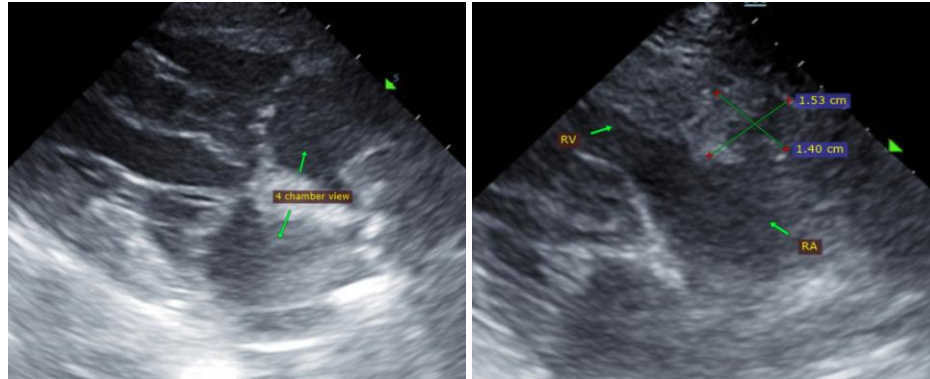
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IMAGES



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.

Maggie Machen Lamy, DVM
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