



PATIENT

Tucker Lussow

SPECIES

Canine

BREED

Labrador Retriever

SEX

Male Neutered

AGE

9 years

WEIGHT

92lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

Dr. Dietschweiler

INVOICE

27317

DATE

11/7/22

PRESENTING CLINICAL SIGNS

History: Presented on 10/24/2022 for lethargy and occasional hacking. No heart murmur noted on exam. Right-side lungs sound more muffled. Thoracic radiographs reveal mild bronchial patterns. VHS 12.5 Has improved on furosemide.
-Abnormal PE/Chem/CBC/UA Results: Mild BUN elevation.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mass associated with the epicardial surface of the right atrium; 4.3 x 4.4cm in diameter in best-viewed cross section. The mass is heterogenous in appearance with hyper- and hypoechoic regions. Trivial mitral and no tricuspid regurgitation. LV function adequate. Left atrium is normal in diameter. LV is normal. The pulmonic and aortic valves are normal in appearance. Normal outflow velocities. The right heart appears normal. Small volume pericardial effusion. No obvious tamponade. No pleural effusion.

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	5.5	2.7	1.4	1.4	55	85	0.5
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	130	1.6	1.2	41.7	3.5	4.5	2.0
*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

Cardiac neoplasia associated with the external surface of the right atrium is identified. The mass likely experienced a small bleed leading to pericardial effusion, which is likely the cause of the reported cough. The most likely tumor type given this location is a hemangiosarcoma (HSA); however, other tumor types cannot be definitively ruled out including an ectopic parathyroid tumor. Pericardiocentesis can be considered, given that the patient is experiencing clinical signs and in search of a more definitive diagnosis through cytology. It should be noted however, that given the small volume of effusion this of course does carry risk and referral may be warranted. If elect to wait for fluid removal, tamponade may develop at any time and the patient may experience an acute decline in cardiac output. Close monitoring is advised. No additional structural issues are identified.

IMAGING PERFORMED BY

svsmobileimaging.com 309-737-3070

**PATIENT**

Tucker Lussow

SPECIES

Canine

BREED

Labrador Retriever

SEX

Male Neutered

AGE

9 years

WEIGHT

92lbs

INTERPRETED BYMaggie Machen Lamy,
DVM, DACVIM
(Cardiology)**IMAGING PERFORMED BY**

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

Dr. Dietschweiler

INVOICE

27317

DATE

11/7/22

The prognosis with cardiac hemangiosarcoma is poor, with an MST of <3 months. The emergent limiting factor is often recurrent hemorrhage, and a pericardial window or subtotal pericardiectomy may relieve recurrent clinical signs though is rarely recommended. Chemotherapy and/or RT can also be discussed with an Oncologist and may extend average survival time to 4-6 months. HSA also has a high metastatic rate, and chest radiographs/full systemic work up are recommended to assess for metastasis. Patients with cardiac neoplasia are at high risk for recurrent hemorrhage, development of tamponade and malignant arrhythmias/sudden death in the future.

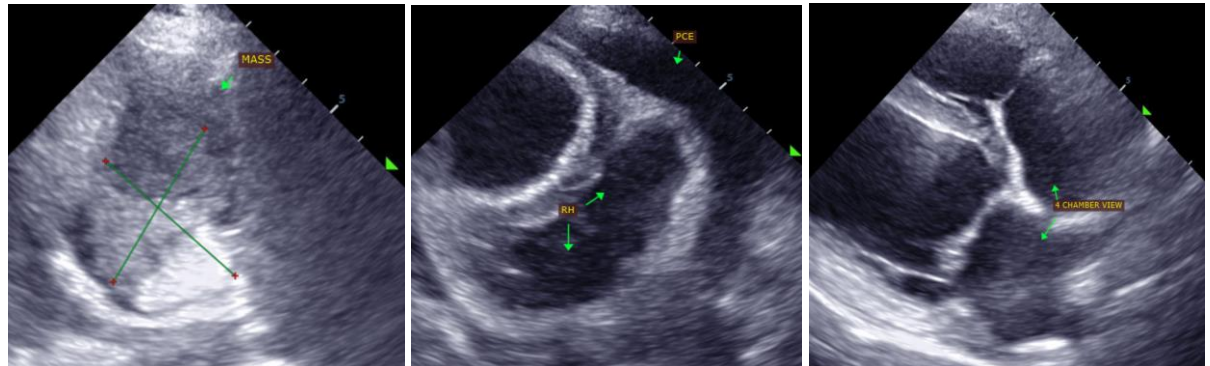
Should the patient experience any acute collapse or lethargy reassessment of the effusion is advised on emergent basis. Activity restriction is advised.

No cardiac medications are clearly indicated at this time and Lasix should be safely discontinued. Cough suppression with hydrocodone can be used if needed for QOL. Over the counter herbal supplement Yunnan Baiyao may help decrease risk of bleeding, however true benefit is speculative (1 capsule PO BID).

PLAN

Consider advanced imaging, metastatic screening, etc. Consider pericardiocentesis as discussed. Discontinue Lasix as discussed. Consider alternative cough suppressant if needed for quality of life.

A recheck of tumor dimension and fluid accumulation can be considered in 1-2 months if patient does well, sooner if recurrence of clinical signs.

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. 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
 Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
 info@sonopath.com