



**PATIENT**

Badger Limehouse

**SPECIES**

Canine

**BREED**

French Bulldog

**SEX**

Male Neutered

**AGE**

12 years

**WEIGHT**

NP

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

A. Nicastro, DVM

**HOSPITAL NAME**

Pet Vet Animal  
Hospital

**REFERRING VET**

Dr. Allison

**INVOICE**

32337

**DATE**

8/14/23

**PRESENTING CLINICAL SIGNS**

History: Acute onset abdominal distension. Ascites and pleural effusion on rads. RDVM tapped chest prior to study.

\*patient was decompensating throughout the study and was later euthanized.

**ECHOCARDIOGRAM FINDINGS** \*Significant mass/anatomic distortion limits image quality.

2D, m-mode, color flow and doppler imaging is available. No pericardial effusion without obvious tamponade. Large hypoechoic mass is seen distorting normal views. The mass appears to be most likely associated with the external surface of the right heart, although this is speculative. The right heart is massively enlarged with evidence of pressure overall, likely congesting a peripheral compressive issue. The left heart is volume depleted. Moderate TR is noted. Velocity is consistent with at least moderately elevated pulmonary pressures. No pericardial 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	NA	3.9	NM	1.1	47	90	NM
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		0.6	NM	NP	1.9	1.5	0.8
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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)
Adapted from June Boon, Veterinary Echocardiography, 1998				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
Hansson et al, Vet Rad and Ultrasound 2002				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995							

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Unfortunately, due to anatomic distortion detailed evaluation is limited in this study. What can be said is there is a massive, likely compressive tumor, associated with the external surface of the heart. An exact origin cannot be identified although the majority of the abnormal tissue is adjacent to the right heart. A chemodectoma or hemangiosarcoma would be the most likely tumor types, with the former more commonly seen in this breed. The right heart is massively enlarged with evidence of elevated pulmonary pressures, which likely reflects peripheral congestion not appreciated here. This is resulting in right-sided congestion with bicavitary effusions reported. The left heart is small/volume depleted. No additional issues are identified.



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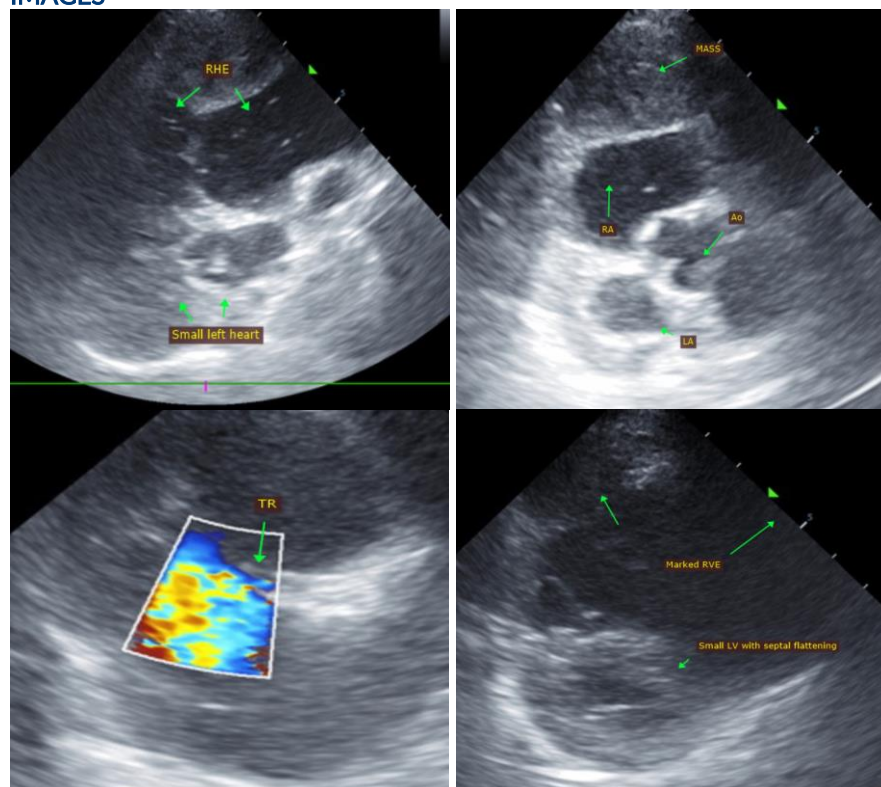
32337

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Regardless of exact mass origin/identification, the prognosis in this case was poor/grave and euthanasia was a reasonable option. Even if we were able to stabilize the situation, the outcome was limited by the size of the tumor.

## 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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