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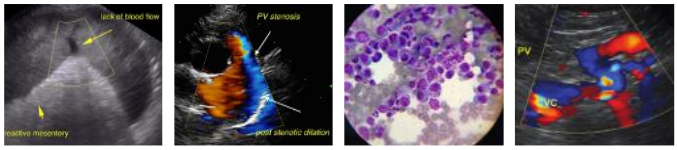
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Dempsey Mazin

SPECIES
Canine

BREED
Boxer

SEX
Male Neutered

AGE
9 years

WEIGHT
62lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Kelly Vazquez, CVT

HOSPITAL NAME
Ho Ho Kus Veterinary Hospital

REFERRING VET
Dr. Eisenberg

INVOICE
22474

DATE
2/9/22

PRESENTING CLINICAL SIGNS

History: Recheck echo. Liver mass on AUS.
-Pertinent previous echo findings (12/2020 MML): Normal/NSF, unknown murmur.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Uniform echogenicity mass associated with the aortic root, 2.6 x 2.6cm in largest cross section. The mass is well encapsulated and near the base of the aortic root (see below) overlying the LA. No obstruction to blood flow or imposition on cardiac chambers at this time. No mitral regurgitation, normal mitral valve. No TR with a normal tricuspid valve. Normal right heart chamber dimensions. LV function is adequate. Left atrium is borderline in diameter. LV is normal in diameter. The pulmonic and aortic valves are normal in appearance. Normal LVOT and RVOT velocity. No AI or PI identified. No pericardial or pleural effusion.

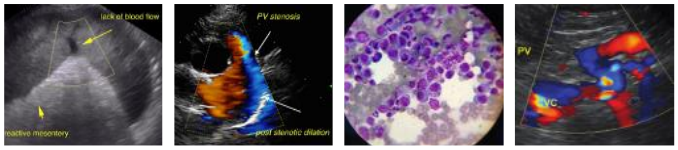
CARDIAC CHART

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	NA	NA	1.5	1.2	31	59	0.36
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	100	1.0	1.6	28.1	2.2	3.4	2.4
*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)
**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)
Adapted from June Boon, Veterinary Echocardiography, 1998				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
Hansson et al, Vet Rad and Ultrasound 2002				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995				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

Persistently normal cardiac structure and function, as was documented on the prior study. One significant change is unfortunately there is confirmed cardiac neoplasia associated with the aortic root. The most likely tumor type given this location and signalment is a chemodectoma, however other differentials cannot be entirely ruled out.

Chemodectomas are often incidental findings, only causing clinical signs if blood flow is obstructed, pericardial effusion occurs, or a metastatic lesion causing systemic issues. Given the breed and lack of pericardial effusion, it is difficult to definitively evaluation the remainder of the aortic body and a thoracic CT may be helpful to fully understand tumor extent (suspicion is low).



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In light of abdominal pathology, this may or may not be related. Further abdominal work-up is advised. No additional issues are identified.

The prognosis with cardiac chemodectomas is fair, with an MST of 1-2 years. The limiting factor is often hemorrhage into the pericardium. Other sequelae include impingement of cardiac blood flow secondary to tumor growth, or metastasis to the thorax or abdomen. Chemotherapy and/or radiation therapy can also be discussed with an Oncologist.

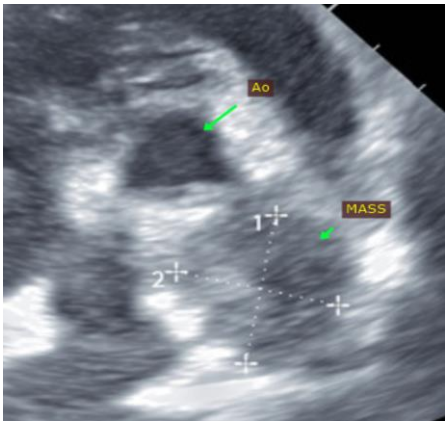
Mild activity restriction and omega fatty acid supplementation are recommended.

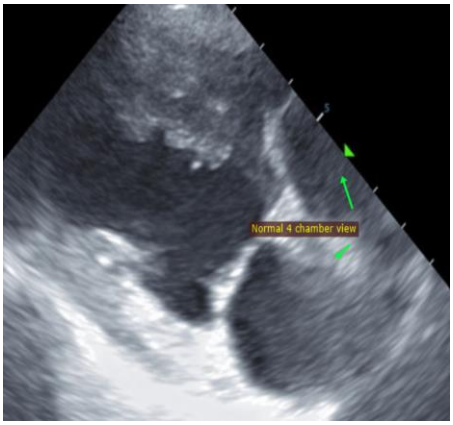
No cardiac medications are indicated at this time. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

PLAN

Further evaluation of tumor extent may be useful through thoracic CT. Continued abdominal work-up is recommended as dictated by the AUS report. Consultation with an Oncologist may be useful. Reassess tumor size in 6 months, sooner if clinical signs arise.

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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