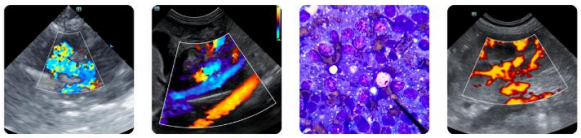


DATE

12.11.25

PATIENT

Hemi Tomaszewski

SPECIES

Canine

BREED

Bulldog Mix

SEX

MI

AGE

3.7.15

WEIGHT

30.9lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME

Eastern AH

REFERRING VET

Dr. Hawbecker

INVOICE

46142

PRESENTING CLINICAL SIGNS

History: Presented 12/4/25 for ascites. Moderate fluid accumulation noted. Fluid came back as a modified transudate. Drained ~1L of fluid off. CXR and AXR did not show an overt cause. BW largely unremarkable.
-Pertinent abnormal PE/Chem/CBC/UA Results: largely NSF.
-Current medications: Prednisone 7.5mg PO q 12hr
-Sedation used: Torbugesic.
-Pertinent previous ultrasound results: No previous.
-STAT: Not requested.
-Imaging performed by: Stephanie Warga RDCS, RVT.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at both 25 and 50mm/s; 2mm/mV. The average heart rate is 150bpm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is positive with normal dimension. MEA is normal. No ectopic beats, pauses or dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. A massive soft tissue lesion is visualized (4.2 x 4.8cm in best viewed cross-section). The mass is associated with the heart base, near the level of the pulmonary artery bifurcation. Compression of the distal MPA/branches is suspected on 2D and color flow imaging. Moderate mitral regurgitation, mild thickening of the mitral valve. LV function is adequate. Left atrium is enlarged, albeit difficult to visualize due to the mass. LV is normal in diameter. RA/RV are mild to moderately enlarged. Moderate TR. Velocity consistent with severely elevated pulmonary pressures. The pulmonic and aortic valves are normal in appearance. Normal LVOT and RVOT velocity. No AI or PI identified. 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	5.5	>5.0	NM	1.9	33	63	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	150	1.4	0.9	14.0	3.1	3.8	2.5
*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)
				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)

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Primary cardiac neoplasia is identified, leading to compression of at least the distal pulmonary artery. The size of the mass is distorting normal views; however, compression of the distal vasculature is visualized. There is some concern for infiltration of the right atrium as well, although this is inconclusive. Regardless, once a mass is compressing the vasculature, the patient is at extremely high risk for congestive signs as is seen here with accumulation of ascites. There is also moderate mitral regurgitation with LA enlargement, which may suggest risk for left-sided complication as well. The TR is likely secondary to compression with elevated pulmonary pressures secondary to the mass. No obvious additional issues are identified. The ECG is unremarkable with a normal sinus rhythm.

Given the location of the mass and the signalment, the likely diagnosis is a chemodectoma; however, a less common extra-cardiac tumor such as ectopic parathyroid, HSA, etc. cannot be entirely ruled out without a biopsy. The issue is more of a mechanical obstruction than true pulmonary hypertension, and Sildenafil will be of little benefit. The best we can do is remove effusions should they occur and use medications for congestive heart failure to help slow development of fluid accumulation. The compressive nature and/or possible early infiltration of the mass should be relayed as a grave prognosis, as the patient is already experiencing clinical signs that are certainly related (arrythmias, labored breathing, etc.). Referral would be the gold standard in this case, given the severity of the findings and concurrent malignant arrythmias. Advanced imaging including advanced echocardiography +/- thoracic CT scan would be helpful to fully understand the extent of disease. If declined, supportive care can be attempted for the short term; however, diuretics and cough suppressants are a band aid over a much bigger issue as the tumor continues to grow. Euthanasia should be considered in this case if quality of life is suffering.

Going forward there are some options for obtaining more information and palliating this type of cancer. Should the client elect to proceed, radiation and/or chemotherapy can be discussed with an Oncologist.

High risk will always remain for recurrent effusions (pericardial, pleural or abdominal) and development of arrhythmias/sudden death at home. Monitor at home for progressive abdominal distention, labored breathing and/or lethargy and collapse.

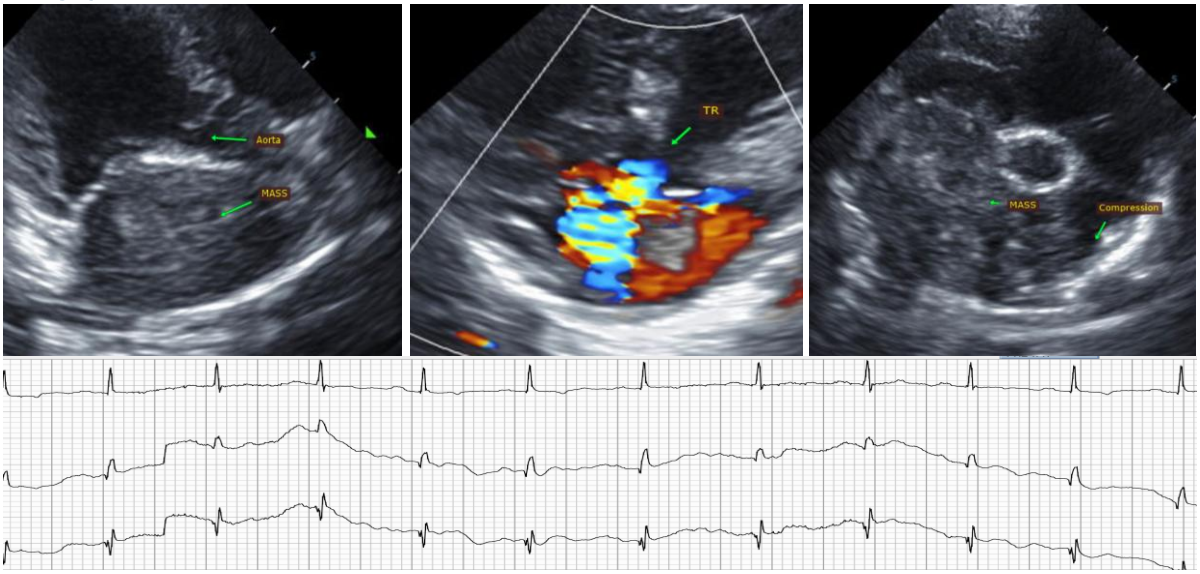
PLAN

Consider referral to a multi-specialty center for advanced evaluation. If declined, the following medications can be attempted: Administer Furosemide 1-2mg/kg PO q12h. Administer spironolactone 1-2mg/kg PO q12h. Administer Pimobendan 0.3mg/kg PO q12h. Administer further supportive care including Hydrocodone. Abdominocentesis as needed for comfort in the future.

A renal panel and BP are recommended in 5-7 days, then every 2-3 months going forward. If quality of life suffers, euthanasia should be considered.

A recheck echocardiogram to reassess mass dimension and heart size is recommended in 2-3 months.

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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