



PATIENT

Jaeger Werner

SPECIES

Canine

BREED

German Shepherd

SEX

Male Neutered

AGE

7 years

WEIGHT

80lbs

PRESENTING CLINICAL SIGN

History: Presented to the ER 11/17/21 for being painful, acting lethargic, and not acting like himself. Jaeger was found to have a swelling on his left lumbar area. Bloodwork was performed and showed a mild anemia, mild increase in white blood cells, elevated liver values, and a slightly low protein value. Further diagnostics declined; Rx Clavamox, Denamarin and Gabapentin.
 Abnormal PE/Chem/CBC/UA Results: CBC- Leukocytosis, neutrophilia, anemia Hct 26.2% Blood smear- polychromasia noted Chemistry- TP 4.6, alb 1.9, Cl 77, ALT 153, AST 86, ALP 236, GGT, 43, Tbili 7.5, K+ 3.6 (no hx of vomiting per O) T4- 1.06, 4dx- negative; O noted dark urine.
 *Sonographer noted bruising in the inguinal area, painful abdomen. Butorphanol administered.
 Preliminary AUS results: possible neoplastic process in spleen/liver.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
 Normal/small cardiac silhouette. No obvious evidence of CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. No mitral regurgitation with no left atrial dilation. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with trace tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The AV groove appears hyperechoic. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

CARDIAC CHART

INTERPRETED BY

Maggie Machen Lamy,
 DVM, DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging Michigan

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12/6/21

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	NM	1.2	55	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	NM	1.3	1.2	36.4	2.3	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)
*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



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

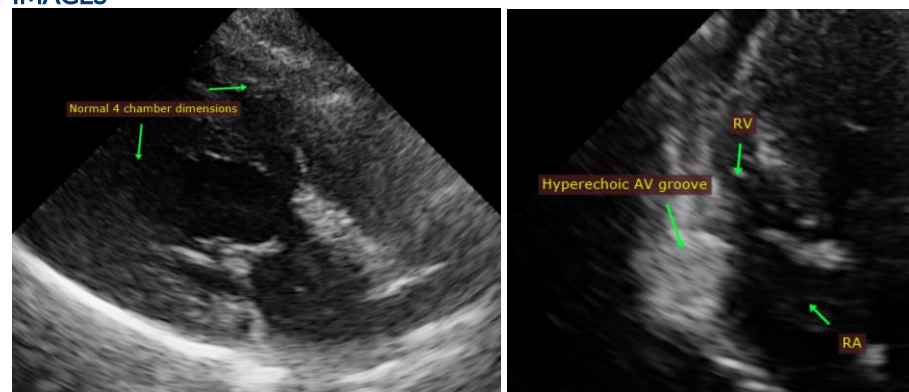
Overtly normal cardiac dimensions and function, with no obvious dysfunction or dilation of the left heart. No significant valvular leaks are visualized, and no evidence of pulmonary hypertension. The AV groove is hyperechoic which may simply reflect fat deposition (suspected); however, a small mass cannot be ruled out in light of AUS findings. If suspicion persists or PCE develops, advanced echocardiography with an attending Cardiologist or potentially a thoracic CT scan may be indicated.

Based on these findings there is no obvious cardiac contribution to the current clinical issues. Follow-up as dictated by the picture.

Monitor for development of a heart murmur, cough, labored breathing, exercise intolerance or collapse episodes.

Plan: If suspicion arises for a secondary cardiac neoplastic process (ie pericardial effusion develops, etc), advanced echocardiography or potentially a thoracic CT scan may be indicated. If patient does well, a recheck echocardiogram is recommended in 6 months to reassess the regions, sooner if signs of cardiac compromise be noted in the future.

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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