



## PATIENT

Hartwin Gubicza

## SPECIES

Canine

## BREED

Boxer

## SEX

Neutered Male

## AGE

2.5 Years

## WEIGHT

67.6 Pounds

## INTERPRETED BY

Sara Brethel DVM,  
DACVIM (Cardiology)

## IMAGING PERFORMED BY

Dr. Kristen Carpenter

## HOSPITAL NAME

Penridge AH

## REFERRING VET

Dr. Alexandra Peters

## INVOICE

36279

## DATE

3/17/26

## PRESENTING CLINICAL SIGNS

- Patient was sedated with Butorphanol
- Hx of high Grd II MCT removed via digit amputation with full course of chemotherapy (vinblastine) completed in 2025. No tumor recurrence noted. Monitored by oncology.
- Recent episode of forceful retching then vomiting that ended in a syncopal episode. Patient recovered quickly with no post ictal period or other abnormal signs. No other previous syncopal or abnormal episodes noted by owner.
- Abnormal PE/Chem/CBC/UA Results: Physical exam was WNL - no murmur or arrhythmias ausculted - Chest rads NSF except mildly elevated VHS of 13.2 on R Lateral and Normal VLAS at 1.9 - Current diet: Farmers Dog with grains - No current medications - 2/18/26: 4dx neg x4

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	--	--	1.23	1.69	29.27	--	--
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	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				
PATIENT	--	2.37	1.0	30.72	3.9	4.1	2.9

### Chest Radiographic Interpretation

The cardiac silhouette appears within normal limits. The pulmonary vasculature is normal. There is no evidence of cardiogenic pulmonary edema.

### Cardiac Presentation

The mitral valve leaflets are normal and there is no mitral regurgitation. There is no prolapse of the mitral valve leaflets. The left atrial size is normal; however, the La/Ao ratio is skewed due to the patient's small aortic root. Left ventricular systolic and diastolic function is within normal limits. There



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is normal right atrial size without evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on today's evaluation. The right ventricle subjectively appears normal in structure and function. Aortic and pulmonic valves have normal morphology. Aortic corresponding outflow velocities are the upper limits of normal, and pulmonic outflow velocities are normal. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

## ULTRASONOGRAPHIC FINDINGS

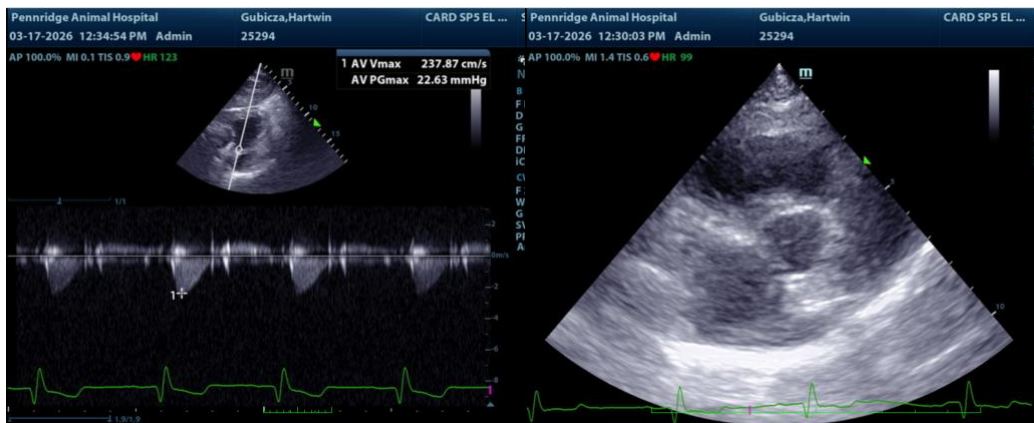
- Small aortic root
- High/normal aortic outflow velocities

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient's collapse episode was likely due to a vagal episode secondary to the retching and vomiting. Structural cause, from a cardiac standpoint, based upon the echo images provided, is not identified. The rhythm throughout the echo appears to be sinus, however, given the breed and the history of collapse, can consider a Holter monitor.

Regardless, due to the patient's breed, yearly echoes and yearly Holters are recommended starting when the patient is four years of age. If we are holding on a Holter at this time, as long as there are no additional collapse episodes, then a Holter would be recommended starting when the patient is four, however, if additional collapse episodes occur, then a Holter sooner would be indicated. Can consider having the patient genetically tested with blood submitted to NCSU in Raleigh.

If the patient requires anesthesia, they should be an adequate anesthetic candidate. Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.



The information and recommendations provided are based on the images presented by the



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referring veterinarian/sonographer. 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.

Sara Brethel DVM, DACVIM (Cardiology)

[info@SonoPath.com](mailto:info@SonoPath.com)