



**PATIENT**

Bear Martinez

**SPECIES**

Canine

**BREED**

Keeshond

**SEX**

Male

**AGE**

14 Years

**WEIGHT**

37.4 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP (CFM), Cert.  
IVUSS

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

William Penn  
Veterinary Hospital

**REFERRING VET**

Dr. Bouzaout

**INVOICE**

72379

**DATE**

12/5/25

**PRESENTING CLINICAL SIGNS**

Possible heart failure. Pulmonary fluid w/cardiac dz, distended abdomen, hepatomegaly, grade V/VI murmur.

Abnormal PE/Chem/CBC/UA Results: Mild anemia

**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	5.73	3.28	1.86	2.46	35	60	0.55
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (lbs)	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	~50-60	2.0	90	37.4	5.6	4.6	--

**Cardiac Presentation**

The cardiac presentation revealed significant volume overload of the left ventricle and left atrium with bradyarrhythmia. Flail mitral valve leaflet noted. Mitral and tricuspid insufficiency noted. Aortic insufficiency noted at 5.0 m/sec. No pericardial or pleural effusion noted. Pulmonary hypertension is evident. Vena cava dilation noted on screening of the liver, measuring 1.44 cm at the level of the diaphragm.

**ULTRASONOGRAPHIC FINDINGS**

- Bradyarrhythmia with left- and right-sided hear failure, Stage C1 valvular disease.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

This patient is at risk for sudden death. STAT EKG, blood pressures, and quadrotherapy indicated in this patient. Pimobendan 0.3 mg/kg BID, Lasix 2-3 mg/kg BID, Spironolactone 1-2 mg/kg SID, ACE inhibitor 0.5 mg/kg SID progressing to BID.

The heart is in a somewhat precarious state with volume overload and a heart that is working to compensate for the valvular insufficiency. Target respiratory rate is < 20 resp/minute after therapy. After initiating therapy, I recommend recheck on the clinical exam, BUN, Creatinine, USG, Chest radiographs & Blood pressure in 5-7 days. Recheck echo in 1 month. Earlier if clinical decompensation is occurring. I do not recommend anesthesia at this time until stabilization has occurred on the recommended medications. Repeat preanesthetic echo is ideal if anesthesia is eventually necessary.



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There is severe anesthetic risk for this patient. Light dose opioids may be used to calm but I do not recommend anesthesia.

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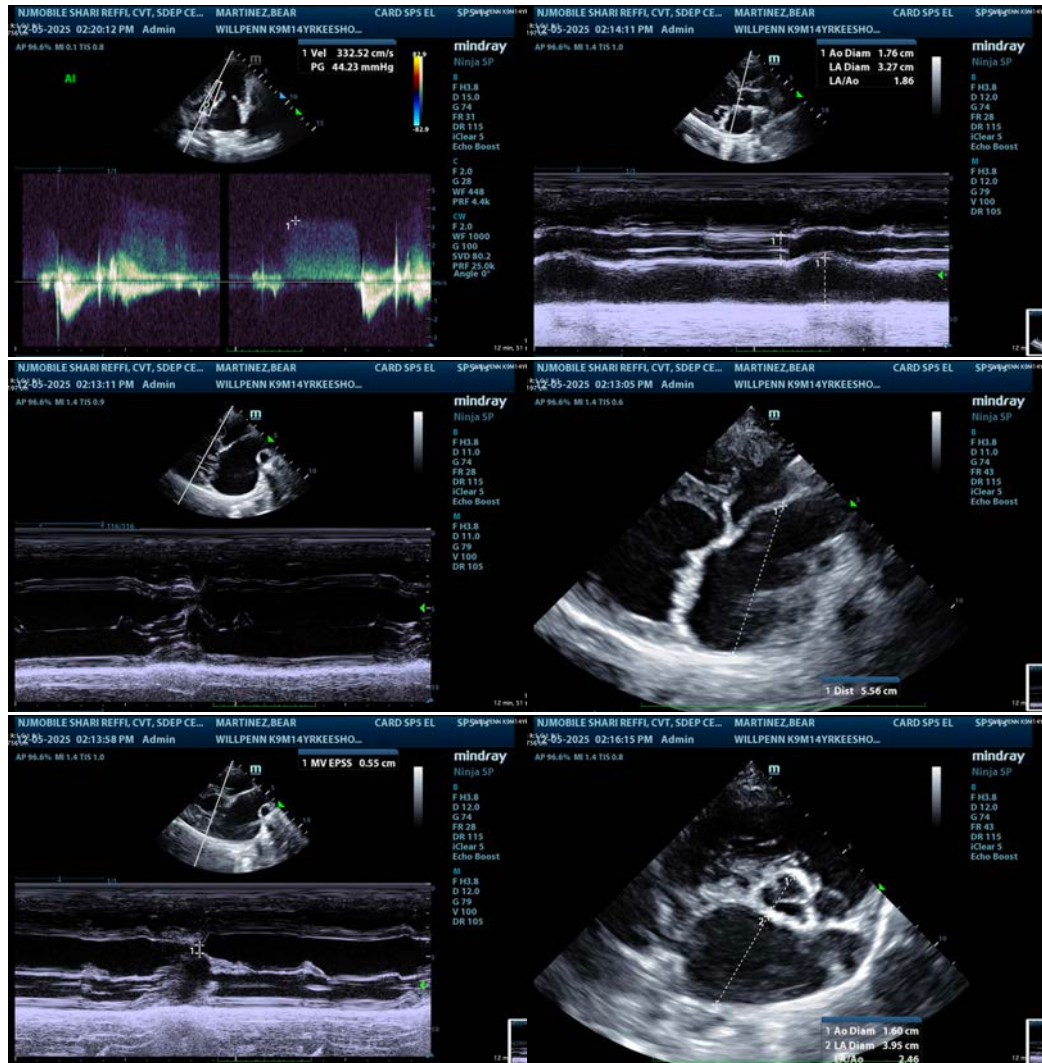
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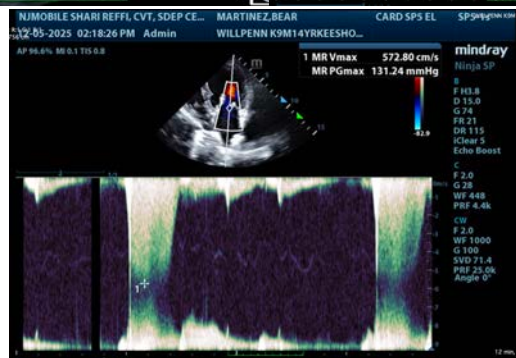
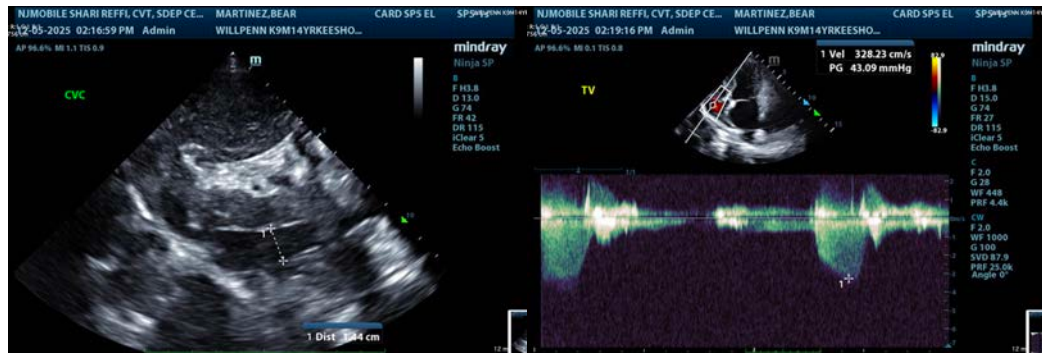
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Eric Lindquist**, DMV, DABVP(CFM), Cert. IVUSS,  
CEO, Owner, Founder -- SonoPath.com  
[info@SonoPath.com](mailto:info@SonoPath.com)