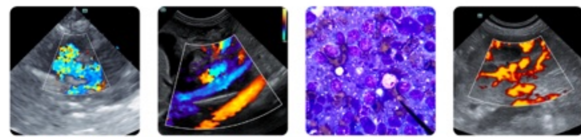
New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath www.SonoPath.com info@sonopath.com 800.838.4268

PATIENT
Millie Flanagan

SPECIES
Canine

BREED
Norfolk Terrier

SEX
Spayed female

AGE
14 years

WEIGHT

INTERPRETED BY
Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

IMAGING PERFORMED BY
Meghan Morse, LVT, CVT

HOSPITAL NAME
Midland Park VH

REFERRING VET
Dr. Shokoff

INVOICE
75046

DATE
4/30/26

PRESENTING CLINICAL SIGNS

History: Recheck echo- Mild B2 mitral dz and mild TR. Coughing x 1 month. Grade 4/6 systolic murmur
Rads revealed cardiomegaly w/ LA/LV enlargement
Current meds: Diphenoxylate
ALKP 241, Chol 507, Trig 397, PLT 501K U/A: squamous epith 4-10/ hpf

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient presented bigeminy type arrhythmogenic pattern. Arrhythmogenic activity is noted in this patient. Mild volume overload was noted in the left ventricle and left atrium. The E Wave velocity was elevated in light of volume overload of the left heart. This is suggests B2 + valvular disease. Mitral and tricuspid insufficiency was noted. There was no pericardial or pleural effusion.

E Wave Velocity 1.4 m/sec

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO	LA/AO (Heart Base)	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	2.2	1.6	1.97	61	90	0.1
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	90	1.3	0.9		3.2	3.5	

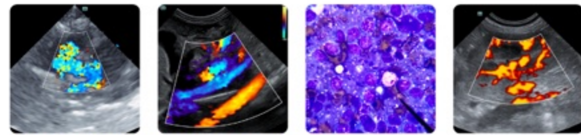
ULTRASONOGRAPHIC FINDINGS

Stage B2+ valvular disease with arrhythmogenic activity.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

An EKG or Holter monitor is indicated. I recommend adding to the concurrent Pimobendan protocol, ace inhibitor at 0.5 mg/kg s.i.d. progressing to b.i.d. and Spironolactone at 1-2 mg/kg s.i.d. Antiarrhythmic therapy may be necessary based on EKG results. Holter monitor can be obtained from our office with cardiologist review.

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.



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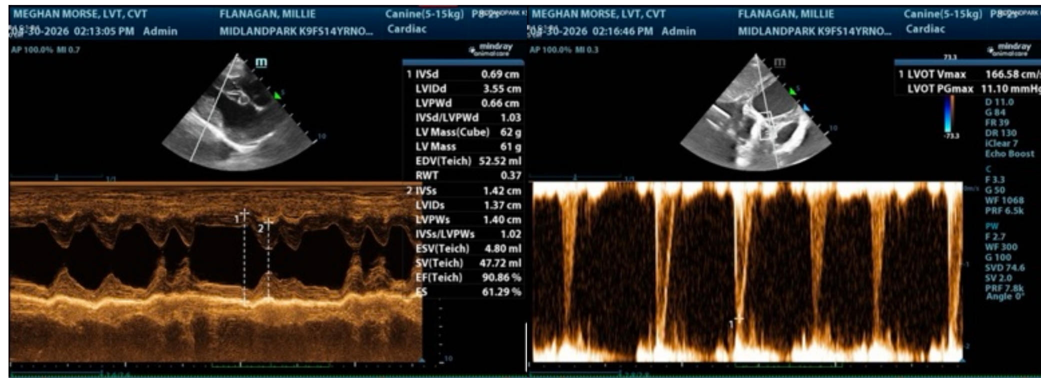
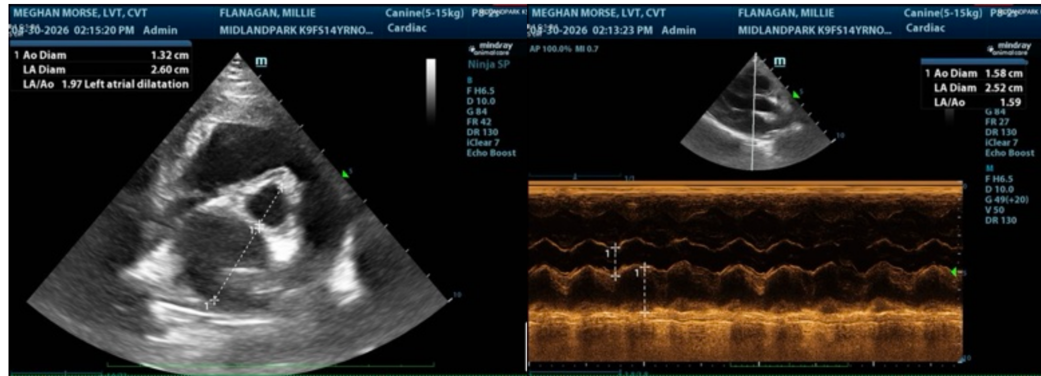
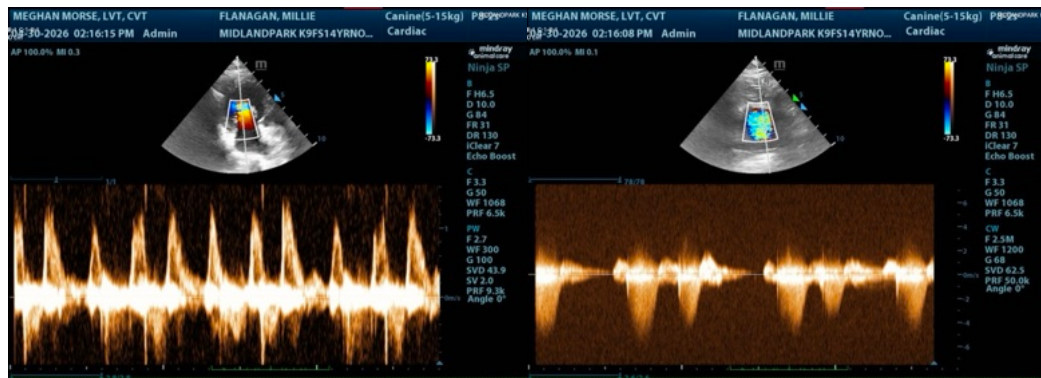
After initiating therapy, I recommend recheck on the clinical exam, BUN, Creatinine, USG, Chest radiographs & Blood pressure in 5-7 days. Recheck echo in 1 month. Earlier if clinical decompensation is occurring. I do not recommend anesthesia at this time until stabilization has occurred on the recommended medications. Repeat preanesthetic echo is ideal if anesthesia is eventually necessary.







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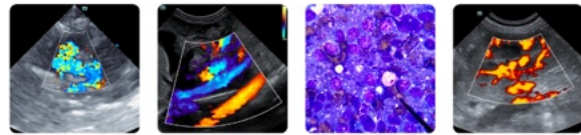

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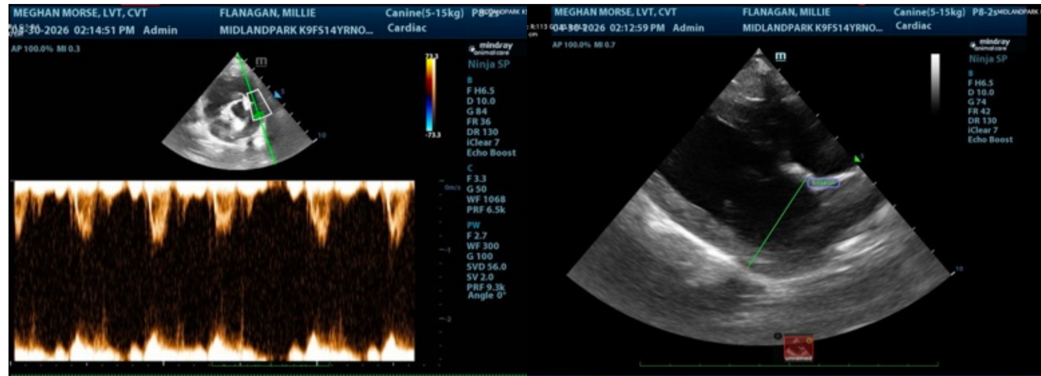

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, Cert. IVUSS, CEO of SonoPath.com

Info@SonoPath.com