Imaging performed by

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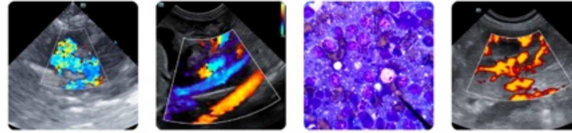

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DATE
4/28/26

PATIENT
Lena Yokemick

SPECIES
Canine

BREED
Bulldog Mix

SEX
Spayed female

AGE
7/4/15

WEIGHT
65 lbs

INTERPRETED BY
Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

HOSPITAL NAME
Bel Air VH

REFERRING VET
Dr. Schmidt

INVOICE
74921

PRESENTING CLINICAL SIGNS

History: Heart murmur detected: 5/2024 - grade 2/6, 5/2025 - grade 2/6, 4/2025 - grade 3/6 with arrythmia pauses
Pertinent abnormal PE/Chem/CBC/UA Results: Labwork not attached, reported as N/A.
Current medications: Apoquel 16mg BID x 10 days then 1 SID x 10 days
Blood Pressure: N/A.
Sedation used: Not required to complete full diagnostic ultrasound.
Pertinent previous ultrasound results: No previous.
STAT: Not requested.
Imaging performed by: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

These findings identify degenerative mitral valve disease with minimal to no hemodynamic effects in the presence of mild pulmonary hypertension (PH). In the absence of more convincing left sided enlargement, the PH is more likely related to primary respiratory disease or other etiology (non-type 2 PH). Pulmonary hypertension in dogs is most commonly secondary to primary respiratory disease (chronic bronchitis, pulmonary fibrosis, or other forms of pulmonary interstitial disease). Pulmonary hypertension can also develop in dogs with severe heartworm disease or secondary to pulmonary thromboembolism (PTE). Less commonly, pulmonary hypertension is identified in dogs as an idiopathic condition. Ventricular arrhythmias occur in many clinical settings, generally divided into cardiac and non-cardiac causes. Cardiac conditions include structural heart disease, pericardial effusion/cardiac neoplasia, and rarely myocarditis. Non-cardiac causes are common and include splenic disease, metabolic disease, electrolyte disturbances, tick-borne disease, fever, anemia, trauma, GDV, hepatic disease, GI disease, pancreatitis, DIC, and sepsis.

CANINE CARDIAC PARAMETERS	Body Weight kg	HR BPM	LAD 4 ch Long	RAD 4 ch Long	La/Ao Heart Base	LVIDd	LVIDs
NORMAL PARAMETER		50-100			<1.6		
PATIENT	29.55 kg	150	3.72	2.91	1.4	4.2	1.99
CANINE CARDIAC PARAMETERS	**FS**	**EPSS**	**PV V MAX (m/s)**	**AV V Max (m/sec)**	**MR Vmax**	**TR Vmax**	**RPA distensibility (normal >30%)**
NORMAL PARAMETER	28-40	<0.6	0.7-1.6	0.7-1.7	4.5-5.5	< 2.7	
PATIENT	53	0.4	1.5	1.8	6.4	3.3	30

ECG:
There is a six-lead ECG available for review. The underlying rhythm is regular at an average rate of 150bpm. The majority of the QRS complexes are supraventricular in origin with consistent P-Q intervals. There are rare premature QRS complexes that are prolonged in duration (>70ms), suggesting a ventricular origin. There is no evidence of atrioventricular block or atrial ectopy identified. This is most consistent with a respiratory sinus arrhythmia with rare ventricular ectopy.

ULTRASONOGRAPHIC FINDINGS

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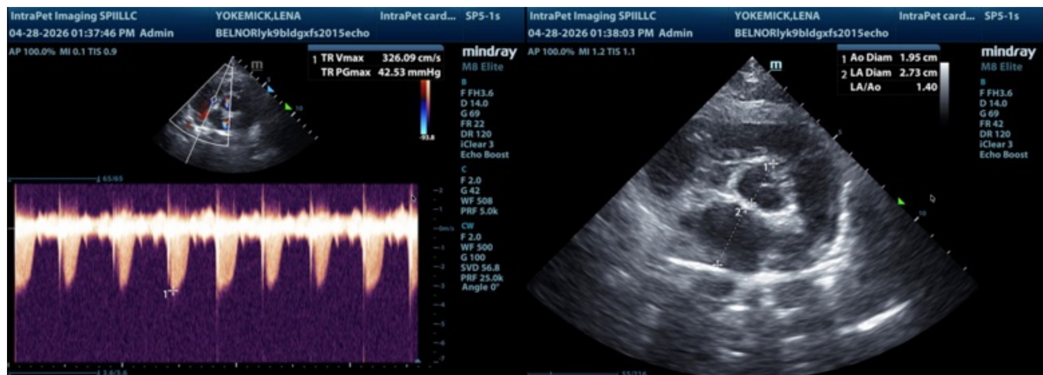
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

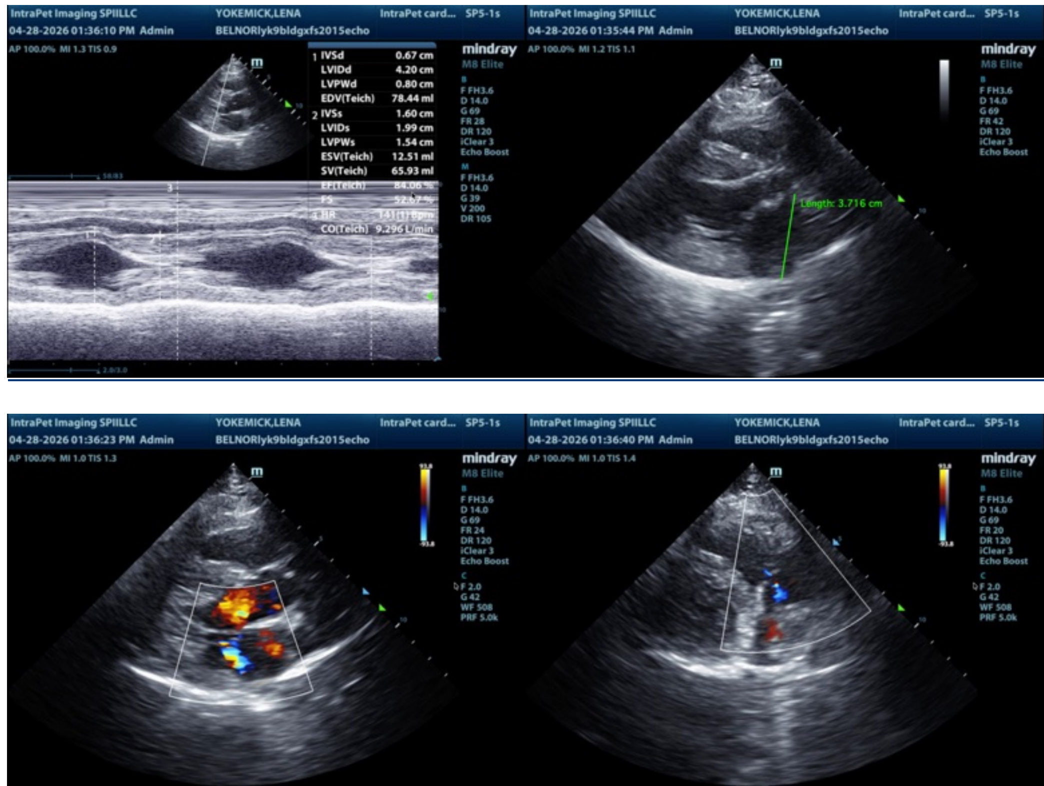
Given these findings, no cardiac therapy is recommended. There are no cardiac contraindications to anesthesia, fluid therapy, vasopressor therapy, or corticosteroids as indicated for further assessment and treatment. If not already performed, baseline thoracic radiographs and blood pressure are recommended. A recheck echocardiogram is recommended in 6 months. While therapy is not specifically indicated for the ventricular complexes, based on these findings, further diagnostics might help tailor therapeutic recommendations. Consider the following:
- Abdominal ultrasound to look for abdominal causes of VPCs (e.g., splenic/adrenal changes)
- Consider 24-48 hour ambulatory ECG (Holter) monitor to assess significance of arrhythmia

Anesthesia considerations:
While there is no CHF present, there is likely an increased anesthetic risk which must be considered prior to any anesthetic procedure. If anesthesia is necessary, then alpha-2 agonists, ketamine, and Telazol should be avoided. Fluid therapy during anesthesia does not necessarily need to be adjusted. A shorter anesthetic duration will reduce the risk of complications. Pre-oxygenation is mandatory. Premedication with an opioid (e.g., butorphanol, hydromorphone, oxymorphone) with or without a benzodiazepine is generally the safest protocol. An induction agent such as Propofol, alfaxalone, or diazepam/etomidate can be used to effect. Maintenance of anesthesia with isoflurane or sevoflurane is reasonable.

Diet:
A high-quality food from Hills, Royal Canin, Science Diet, Eukanuba, Iams, or Purina that is highly palatable with adequate protein and calories for maintaining optimal body condition is reasonable.

Activity:
No special considerations are necessary





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.

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)
info@SonoPath.com