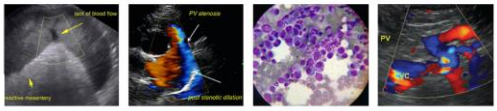
Mass Veterinary Specialty Services
1-413-734-1292



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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PATIENT
Princess Gillen

SPECIES
Canine

BREED
Dalmatian

SEX
Female Spayed

AGE
9 years

WEIGHT
63.5lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Specialty Services

REFERRING VET
Dr. Masloski

INVOICE
21005

DATE
9/14/21

PRESENTING CLINICAL SIGNS

History: Princess is referred for evaluation of a heart murmur noted last month. She needs surgery to address chest masses and an ear mass. She is presently doing well with no dyspnea. She has a good appetite and activity level. CV/RESP: NSR, grade III/VI murmur with PMI left apical area, PSS, lung fields clear. BP: 180mmHg x 3. No medications. *No sedation.

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 25mm/s, 10mm/mV. The underlying rhythm is sinus in origin with an average heart rate of 140bpm (range 132-150bpm). P for every QRS complex and vice versa. P and QRS morphologies are positive. A single premature beat is identified. No supraventricular premature beats, pauses or other dysrhythmias observed. ECG diagnosis: Normal sinus rhythm with a single VPC.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.
Left atrium: The left atrium is normal.
Mitral valve: The mitral valve is normal with no mitral regurgitation.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mildly elevated aortic outflow velocity; laminar flow. No aortic insufficiency.
Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.
Right atrium: Normal RA dimension.
Tricuspid valve: The tricuspid valve appears normal with no tricuspid regurgitation.
Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

2-Dimensional Measurements

Ao diam (cm)	2.3
LA diam (cm)	2.6
LA:Ao (Swe)	1.1
IVS thickness (cm)	1.1
LVID diastole (cm)	3.8
PW thickness (cm)	1.1
LVID systole (cm)	2.4
FS (%)	37

Doppler Measurements

PV Vmax (m/s)	1.2
AoV Vmax (m/s)	2.2
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

The only cause of a murmur identified is mildly increased flow velocity through the LVOT/aortic root. No obvious subaortic ridge or valvular abnormalities are visualized, and with the absence of structural abnormalities this is considered a benign flow murmur. As this is a new heart murmur, it is reasonable to monitor periodically via recheck echocardiography in the future. Additionally screening lab work is recommended to rule out systemic contributions such as anemia or dehydration. No valvular insufficiencies were noted, and no structural issues identified.

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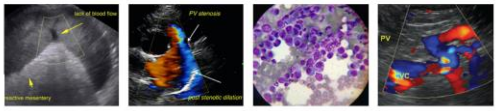

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A single ventricular premature contraction was identified on the ECG. VPCs are generated from abnormal conductive or fibrotic tissue in the ventricles of the heart muscle, and even frequent single VPCs will often cause no clinical signs in dogs. When sustained however, ventricular tachycardia can lead to symptoms such as lethargy and collapse.

VPCs are a very non-specific finding. They can be primary in origin (such as ARVC), be secondary to significant cardiac disease (not present in this study) or be extra-cardiac in origin, i.e., due to pain, stress, inflammation, cancer, GI disease, DIC/sepsis, etc. In an asymptomatic dog with only a single VPC identified this is likely due to stress (particularly in light of elevated BP as well) and no follow up is advised at this time. Monitor for signs of sustained arrythmias (such as acute lethargy or collapse).

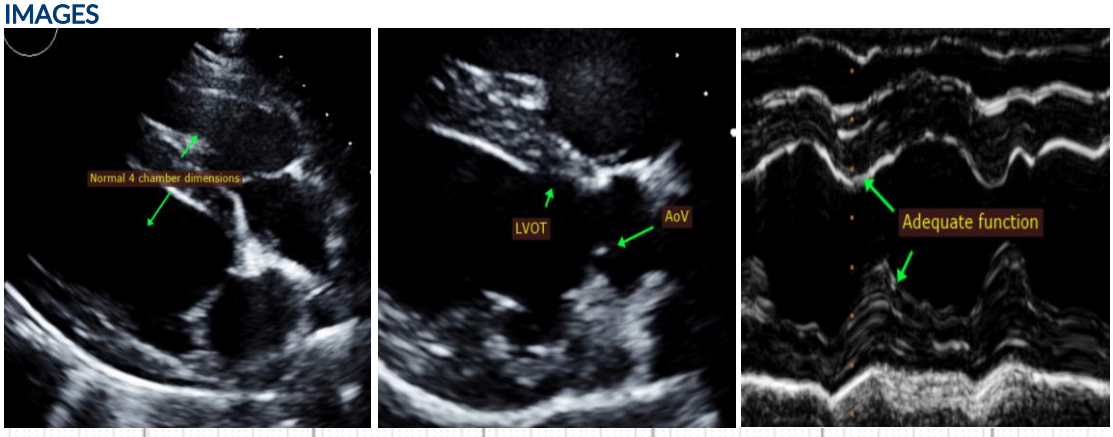
RECOMMENDATIONS

- In an asymptomatic dog without significant left atrial enlargement, no cardiac medications are clearly indicated.
- Anesthetic risk is considered mildly elevated. Avoid ketamine, telazol, dexdomitor (or other alpha-2 agonists) and acepromazine. Recommend having lidocaine CRI available for use in the event of worsening ventricular arrhythmias under anesthesia (CRI 50—75mcg/kg/min)

PLAN

- Recommend conservative monitoring with a recheck echocardiogram in 12-18 months, to screen for development of disease the preexisting murmur may mask

IMAGES



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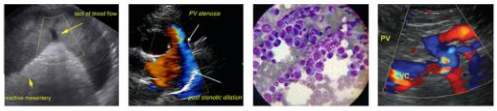

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

Echocardiogram performed by: Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)