



**PATIENT**

Sadie Starrett

**SPECIES**

Canine

**BREED**

Cocker Spaniel

**SEX**

Female Spayed

**AGE**

9 years

**WEIGHT**

38lbs

**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**

20712

**DATE**

8/24/21

**PRESENTING CLINICAL SIGNS**

History: Sadie had a collapse episode recently. On exam a distended abdomen was noted with ascites confirmed radiographically. She initially had a heart murmur detected in June. She has been having some dyspnea and intermittent coughing. Her appetite may be a bit less at times but is otherwise fairly normal. She does not wish to go on walks anymore. Her abdomen has been distended for the past month. CV/RESP: NSR, grade IV/VI murmur with PMI left apical area radiating to right with grade II/VI murmur noted on right, PSS, lung fields clear. BP: >300mmHg. Medications: Apoquel 1/2 tab daily.

**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 mildly dilated. Hypoechoic mass obscuring the left atrium in multiple views; 3.2 x 3.9cm. An exact origin is difficult to determine; however, an extra-cardiac location is suspected. Some degree of compression of the LA is suspected based upon color flow, although difficult to confirm.

**Mitral valve:** The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Moderate mitral regurgitation. Normal velocity.

**Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

**Right ventricle:** The RV is prominent.

**Right atrium:** The RA is prominent. The mass obscures the right atrium in some views.

**Tricuspid valve:** The tricuspid valve appears mildly thickened with mild tricuspid regurgitation.

**Pulmonic valve/Pulmonary artery:** The pulmonary artery is normal with normal outflow velocities. No obvious PA or branch infiltration.

**Pericardium/other:** No pericardial effusion. Scant pleural effusion in subcostal views. Ascites noted. The mass appears intra-pericardial.

**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 180bpm.

**2-Dimensional Measurements**

Ao diam (cm)	1.7
LA diam (cm)	2.5
LA:Ao (Swe)	1.5
IVS thickness (cm)	0.66
LVID diastole (cm)	4.16
PW thickness (cm)	0.71
LVID systole (cm)	2.7
FS (%)	35

**Doppler Measurements**

PV Vmax (m/s)	0.96
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	5.0
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**INTERPRETATION OF THE FINDINGS**

A large soft tissue lesion is identified near the heart base obscuring both atria depending on the view. The mass is most likely extra-cardiac yet intrapericardial, with potential



<b>PATIENT</b>	compression of the atria. The finding of ascites likely reflects peripheral compression as well, with fluid accumulating in the abdomen secondary to increased filling pressures. There is also moderate mitral and mild tricuspid regurgitation, which are insignificant relative to the mass. Mild left atrial enlargement indicates low risk for associated complication at this time; however, follow up is advised. No additional issues are identified.
<b>Sadie Starrett</b>	
<b>SPECIES</b>	
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<b>BREED</b>	Unfortunately, the exact origin of the mass is difficult to pinpoint in 2D imaging. Possibilities include chemodectoma, hemangiosarcoma, or other soft tissue lesion. Highly recommend further diagnostic imaging in this case to identify a definitive origin and extent of thoracic involvement of the mass (CXR, CT, etc.).
Cocker Spaniel	
<b>SEX</b>	
Female Spayed	Going forward, regardless of tumor type the clinical issues are due to a mechanical obstruction of blood flow, which confers a grave prognosis. The mass will likely continue to increase in size, further worsening the obstruction and ultimately leading to decompensation. The best we can do is remove effusions through tapping when needed and use medications for congestive heart failure to help slow fluid accumulation. Euthanasia should be considered should the effusions become difficult to manage or ancillary issues arise such as syncope or malaise. Diuretics are a band aid and will likely only be effective for the short-term. Please note medications below.
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<b>INTERPRETED BY</b>	
Maggie Machen Lamy, DVM DACVIM (Cardiology)	High risk will always remain for recurrent effusions (pericardial, pleural or abdominal) and development of arrhythmias/sudden death at home. Monitor at home for progressive abdominal distention, labored breathing and/or lethargy and collapse.
<b>IMAGING PERFORMED BY</b>	
Pamela Harrigan, RDCS	The reported blood pressure is markedly elevated and should be reassessed for accuracy particularly given no reported clinical signs of severe hypertension (retinal changes, etc.) or evidence of LVH on echo. Ideally obtain serial measurements in a controlled, low stress environment and continue until 3 consecutive readings plateau within 5mmHg of variability. If persistently >180mmHg despite a relatively calm demeanor, recommend institution of amlodipine to effect. Additionally, if deemed accurate, screening for predisposing underlying causes of SHT is recommended (Cushings, PLN, adrenal tumor, etc.), as primary disease is relatively uncommon and a rule out diagnosis.
<b>HOSPITAL NAME</b>	
Mass Veterinary Specialty Services	
<b>REFERRING VET</b>	
Dr. Masloski	
<b>INVOICE</b>	<b>RECOMMENDATIONS</b>
20712	- Institute Lasix 0.5mg/kg PO q12h.
	- Institute Pimobendan 0.3mg/kg PO q12h.
	- Institute Spironolactone 1-2mg/kg PO q12h.
	- Reassess BP as discussed and treat as indicated.
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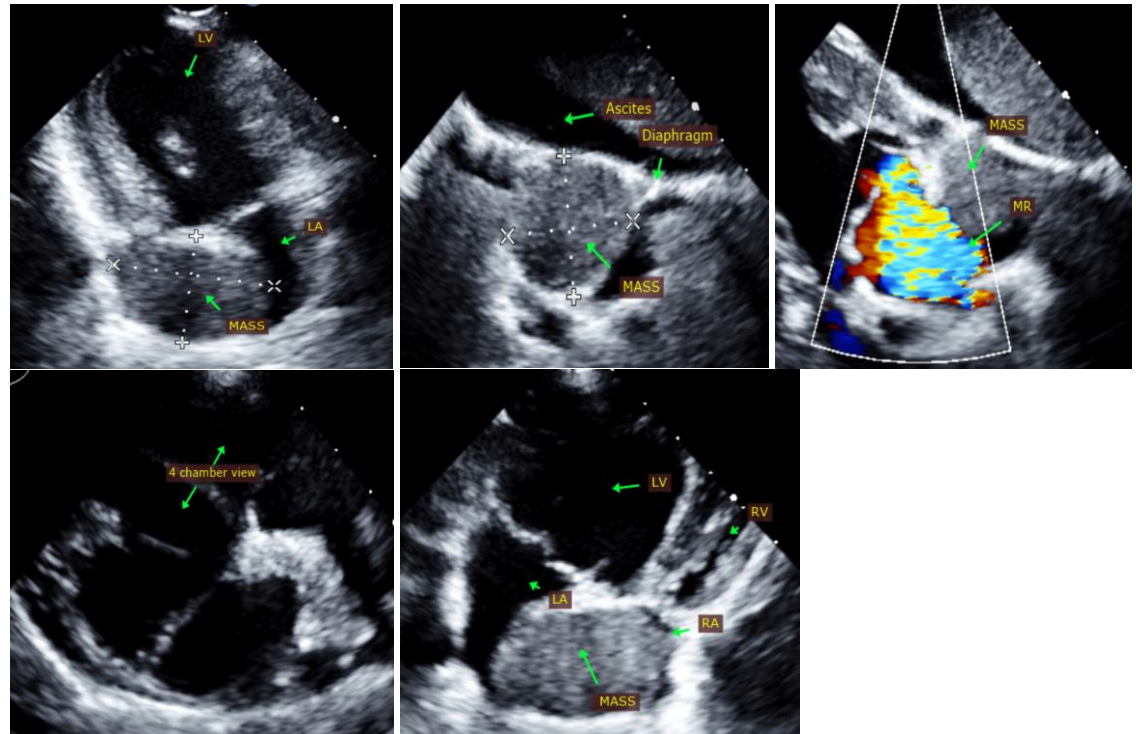
8/24/21

- Consider advanced imaging this case such as chest radiographs, thoracic CT scan, etc. Chemotherapeutic options can be considered in this case pending further tumor identification/suspicion.
- Full systemic evaluation is advised to screen for metastatic lesions including abdominal ultrasound.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

**PLAN**

- Monitor renal panel/BP every 3-4 months lifelong.
- Recheck tumor size in 3-4 months pending clinical signs.

**IMAGES**

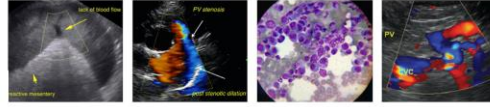


The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.



Mass Veterinary  
Specialty Services  
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Sadie Starrett

Maggie Machen Lamy, DVM

Diplomate of the American College of Veterinary Internal Medicine (Cardiology)

info@sonopath.com

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**Echocardiogram performed by:** Pamela Harrigan, RDCS

Pet Animal Ultrasound Service (4paus.com)

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