

**PATIENT**

Stella Macurak

**SPECIES**

Canine

**BREED**

Lab Mix

**SEX**

Spayed Female

**AGE**

2013

**WEIGHT**

73.4

**INTERPRETED BY**

Sara Brethel DVM,  
 DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT,  
 ARDMS/RVT

**HOSPITAL NAME**

Banfield Pet Hospital  
 Westminster

**REFERRING VET**

Dr. Jantz

**INVOICE**

35415

**DATE**

11/6/25

**PRESENTING CLINICAL SIGNS**

History: Aggressive bone lesion 3rd digit of front paw, elevated proBNP, pre surgical Medication: Rimadyl, Simplicef, gabapentin.

**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	--	--	NM	1.0	29.72	--	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	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	--	1.54	0.98	33.36	3.8	3.7	2.6

**Cardiac Presentation**

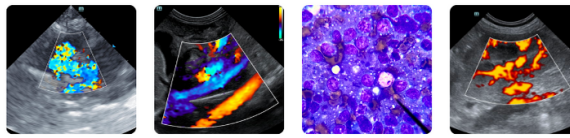
There is an arrhythmia present. The mitral valve leaflets are normal and there is no mitral regurgitation. There is no prolapse of the mitral valve leaflets. The left atrial size is normal. Left ventricular systolic and diastolic function is within normal limits. The right atrium is normal. It is unclear if there is evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on today's evaluation. The right ventricle subjectively appears normal in structure and function. The aortic and pulmonic valves have normal morphology and the corresponding outflow velocities are within normal limits. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

**ULTRASONOGRAPHIC FINDINGS**

- Irregular rhythm
- Possible tricuspid regurgitation

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The patient has an irregular heart rhythm and an electrocardiogram 6 lead is strongly recommended. It is suspected the patient is having ventricular premature complexes or VPCs. Sometimes these can be seen with primary heart disease in dogs and cats. Other diseases that can cause these abnormal



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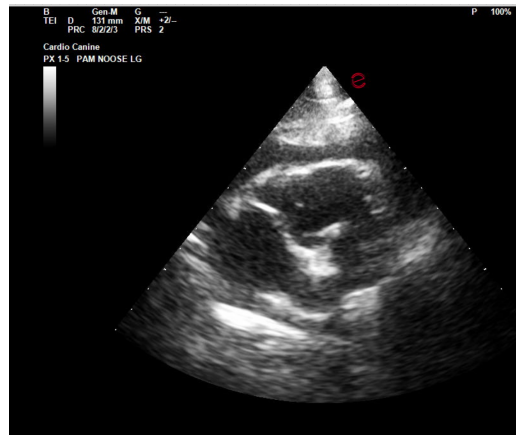
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heart beats include diseases of the liver or spleen, pain, infectious diseases, endocrine disorders, or sometimes they can be brought about by anxiety. A Holter monitor may be needed for this patient in the future. The elevated proBNP may be secondary to the patient's arrhythmias, but also with the aggressive bone lesion, neoplastic causes can cause an increasing proBNP.

If the rhythm is stable, then there are no cardiac contraindications to moving forward with anesthesia. Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.

Can consider obtaining additional images of the tricuspid valve, focusing color doppler with a little bit finer detail to see if there is true tricuspid regurgitation present.



**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.

Sara Brethel DVM, DACVIM (Cardiology)

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