

PATIENT

Bonnie Rini

SPECIES

Canine

BREED

French Bulldog

SEX

Spayed Female

AGE

8 Years

WEIGHT

15.4 pounds

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

PRESENTING CLINICAL SIGNS

Irregular arrhythmia noted on routine physical exam. Gingival mass and periodontal disease present, Cardiac ECHO to determine anesthetic risk

Is there a Heart Murmur? If so, please grade: No murmur appreciated, irregular arrhythmia

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			1.39	1.4	31.11	--	0.16
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		1.98	1.75	7.0	1.7	2.7	1.86

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

VCA McKenzie Animal Hospital

REFERRING VET

Dr. Arpaia

INVOICE

14581

DATE

03/24/26

Cardiac Presentation

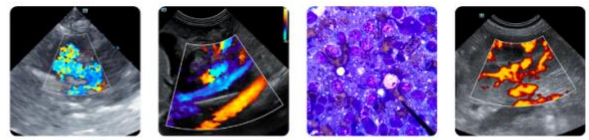
The mitral valve leaflets are normal and there is no mitral regurgitation. There is no prolapse of the mitral valve leaflets. The left atrial size is normal. Left ventricular systolic and diastolic function is within normal limits. There is normal right atrial size without evidence of tricuspid regurgitation. 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.

ECG

Sinus rhythm with occasional 2nd degree atrioventricular block and baseline artifact.

ULTRASONOGRAPHIC FINDINGS

- Structurally normal heart.
- 2nd degree AV block.



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The heart is structurally normal, and the cause of the AV block is not identified from a structural cardiac standpoint point of view. I would recommend ensuring full blood work is normal. Could be a primary conduction disorder. However, other differentials such as systemic diseases cannot be ruled out. Can also consider an abdominal ultrasound on the patient. Recommend ensuring the patient responds to atropine prior to anesthesia.

- 0.04mg/kg atropine SQ, IM, or IV
 - SQ: wait 20-30 minutes for a response
 - Im: wait 15-20 minutes for a response
 - IV: keep the patient attached to ECG and response is seen within 5 minutes. There will be a reflex bradycardia after given IV
- Positive response: HR > 160-180

Pending results of an atropine response test, 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.

If the patient responds to atropine, then the arrhythmia is primarily vagally mediated and less likely to be associated with a conduction disorder and further investigation into underlying diseases causing elevated vagal tone is recommended.

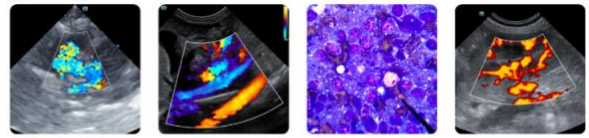


The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@SonoPath.com



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