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Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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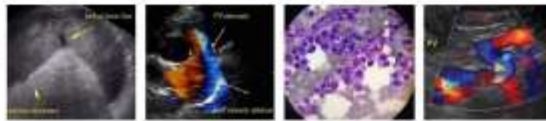


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Rome Oszvald

SPECIES

Canine

BREED

Min Pin

SEX

MN

AGE

15 Years

WEIGHT

5.8kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Downtown AH

REFERRING VET

Ahn

INVOICE

50073

DATE

2-4-22

PRESENTING CLINICAL SIGNS

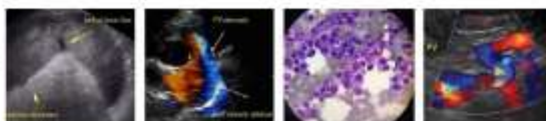
Feb 2021 diagnosed with DM, caninsulin 4 unit BID well managed When he was 9 years old, he started to cough maybe once a day. End of November last year, he would have "coughing fits" which will last over an hour. hydrocodone was given after the coughing fits. then hydrocodone and tracheal elixir stopped working. currently on furosemide 20mg BID which helped the coughing significanlty Grade 1/6 murmur. history of pancreatitis. gabapentin 100mg BID, melatonin 5mg SID, caninsulin 4 IU BID, furosemide 20mg BID Any cause of cough? Risk for anesthetic for dental cleaning.
Abnormal PE/Chem/CBC/UA Results: ALP 400 ALT 250 lipase was quite high in January of 2021

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT			1.2	1.26	37	70.4	0.2
CANINE CARDIAC PARAMETERS	**HR (BPM)**	**AV VMAX (m/s)**	**PV MAX (m/s)**	**BODY WEIGHT (kg)**	**LA 2D short axis Base view (cm)**	**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	BELOW	BELOW	BELOW	BELOW
PATIENT	80	1.45	0.91		2.7	2.7	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.



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ULTRASONOGRAPHIC FINDINGS

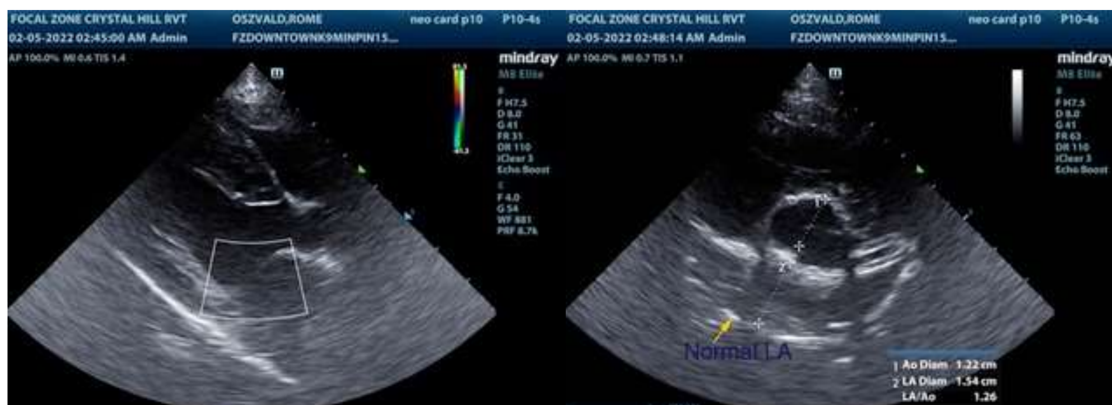
- Normal echocardiogram.

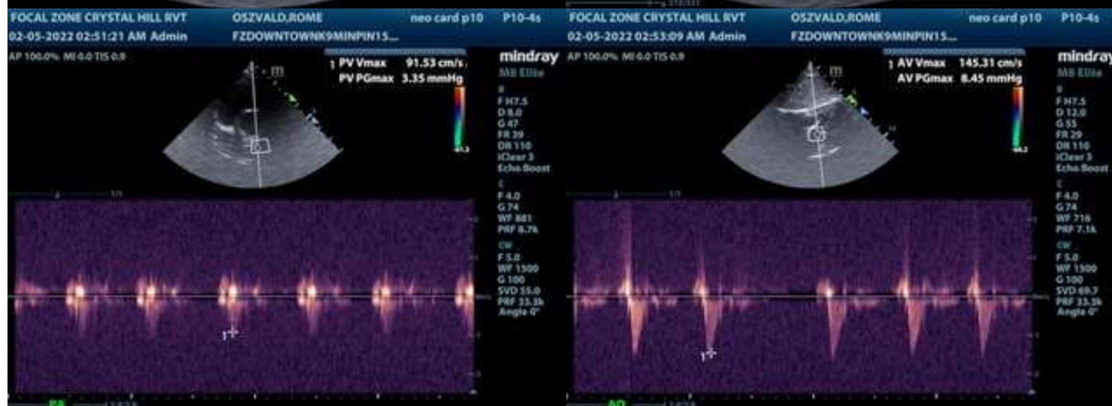
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

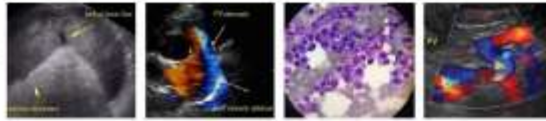
Overtly normal cardiac structure and function. Definitive source of the murmur was not overtly evident in this study. No clinical issues such as systolic dysfunction, significant valvular insufficiency, stenotic disease, or evidence of clinical pulmonary hypertension were present. If no evidence of volume changes i.e., dehydration or anemia, a physiologic flow murmur is suspected while nonobvious small flow abnormality not visualized in this study cannot be definitively excluded. Regardless, the overall normal cardiac structure and function indicate that any risk associated with a low grade murmur is low. No indication for cardiac medications. The overall cardiac presentation indicates that the coughing in this patient is noncardiogenic in origin. Consider for potential for primary lower airway disease or possible noncardiogenic edema, both of which may at times respond positively to diuretic therapy. Assuming normal blood pressure, no anesthetic contraindications.

The following anesthetic protocol may be considered.

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.







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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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com