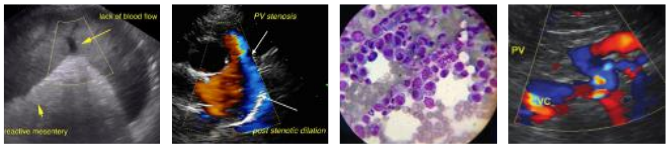
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Oliver Kolm

SPECIES

Canine

BREED

Labradoodle

SEX

Neutered Male

AGE

7 Years

WEIGHT

85.1 Pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Westwood Regional VH

REFERRING VET

Dr. Hartwick

INVOICE

16066

DATE

6/14/22

PRESENTING CLINICAL SIGNS

History: Patient had abdominal ultrasound yesterday for pancreatitis, now increased RR, lethargy, open-mouth to blowing cheeks out breathing, muddy gums, in O2 therapy chamber, echo done with O2 flowby. Getting nebulizations (pneumonia), splenic lesion seen on abdominal scan yesterday (interpretation pending Dr. Nicastro). Meds: Baytril, famotadine, cerenia, buprenorphine.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

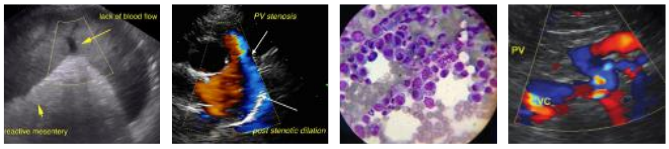
CANINE CARDIAC PARAMETERS	**MR VMAX** (m/s)	**TR VMAX** (m/s)	**LA/AO** (Boon method)	**LA/AO** (Heart Base; Swe)	**FS** (%)	**EF** (%)	**EPSS** (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	--	<2.0	1.2	1.35	37.5	70.9	0.15
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**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				
PATIENT	108	1.5	1.2	--	3.3	2.4	--

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 with mild decreased LV luminal volume and without evidence of dilation or restriction. 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 pleural fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of overt masses in the visible window.

A rapid view of the liver revealed no evidence of hepatic vascular congestion or cranial abdominal ascites.

Transdiaphragmatic and pericardial views revealed comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be



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visualized by sonogram unless pathology is present. This finding may indicate primary alveolar/lung disease such as neoplasia, thromboembolic disease, acute inflammatory disease, (i.e., pneumonitis, SARS, etc.) with potential for microconsolidation. Thoracic radiographs recommended, if not done.

ULTRASONOGRAPHIC FINDINGS

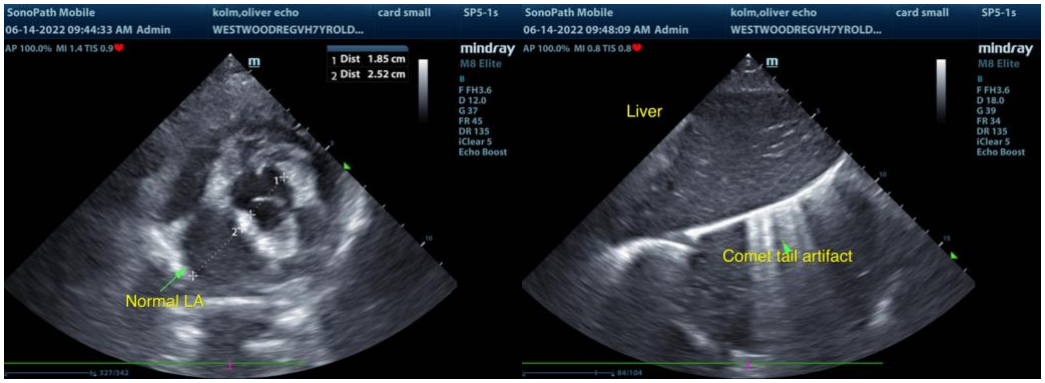
- Overtly normal cardiac structure and function with mild subjective LV hypertrophy
- Transdiaphragmatic and pericardial comet tail lung pattern

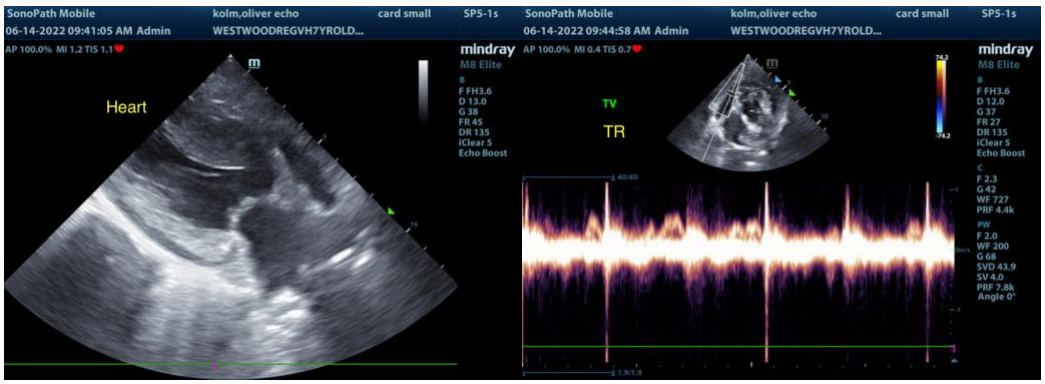
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, no evidence of significant structural or functional cardiomyopathy (i.e., no evidence of left or right heart chamber enlargement or obvious clinical pulmonary hypertension). Potential causes of subjective LV hypertrophy may include dehydration (pseudohypertrophy), which is suspected in this case with additional considerations, including systemic hypertension, while the possibility of infiltrative disease, such as lymphosarcoma or less likely, primary HCM, similar to a cat, cannot be definitively excluded. Assessment of systemic BP, for evidence of hypertension is recommended.

The cardiac presentation is not consistent with cardiogenic respiratory abnormalities.

Considerations for a primary lower airway disease is indicated. No indication for cardiac medications.





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. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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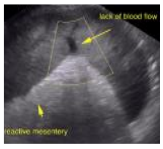
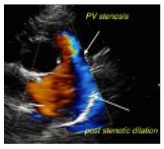
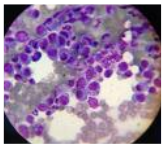
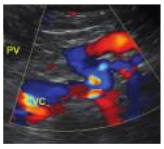

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