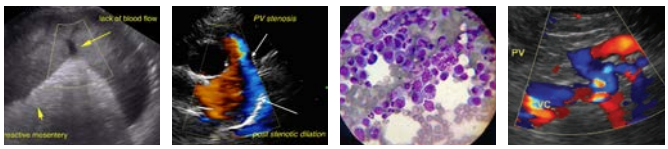
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Rudy O'Kelley

SPECIES
Canine

BREED
Standard Poodle

SEX
Neutered Male

AGE
8

WEIGHT
30 kg

INTERPRETED BY
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Megan Spatz

HOSPITAL NAME
Boren Vet Medical Teaching Hospital

REFERRING VET
Dr. Danielle Dugat

INVOICE
46345

DATE
3/31/23

PRESENTING CLINICAL SIGNS

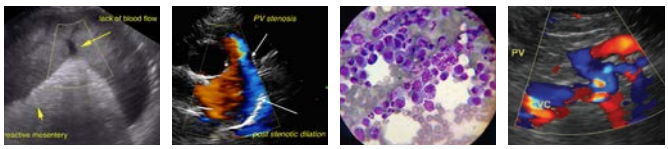
BP 142/88 MAP 100 Rudy was presented to the OSU-VTH Emergency service on 3/30/23 after being referred by his primary veterinarian for additional diagnostic tests for lethargy and gastrointestinal signs. On presentation, Rudy was quiet by alert and responsive. He showed signs of dehydration, abnormal pulse quality and muffled heart sound. He also appeared icteric (jaundice). Stabilization protocol was initiated immediately. Point of care emergency ultrasonography revealed effusion around his heart and large mass in his abdomen. Pericardiocentesis (aspiration of fluid from pericardial sac) was performed and yielded ~130 mL of hemorrhagic (bloody) fluid. Urinary catheterization was also performed to evacuate the bladder as it appeared to be very full on point of care ultrasonography. Once Rudy was stable, we discussed further diagnostic plan. Our initial recommendations included full bloodwork, including coagulation panel, cytology (study of cells) of the pericardial effusion, radiography of his chest and ultrasonography of his abdomen, with hospitalization. You approved. His bloodwork revealed elevated white blood cells, which indicated inflammation, infections or physiological stress. Low platelet, this could be secondary to bleeding. He also had elevated kidneys and gallbladder/liver values. His coagulation test was within normal limit. The preliminary ultrasonographic result reveal large splenic mass. The effusion from the pericardial sac was confirmed to be hemorrhagic with no evidence of inflammation, infection or neoplasia identified. In the evening, Rudy developed abnormal breathing pattern and his oxygenation appeared to be poor based on pulse oximeter. An updated plan was discussed. The updated plan included performing echocardiography to rule out possible tumor of the heart. Once the echocardiography report become available, surgical consult for possible pericardiectomy (making window into the pericardial sac to prevent future fluid accumulation) and splenectomy (removal of spleen) will be the next step. If Rudy's conditions are not completely manageable with surgical intervention, referral for oncology consult is the next step. Also, due to poor oxygenation, oxygen therapy by mean of nasal prong was indicated.

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	5.0		1.0	--	45	--	0.6
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	--	--	1.0		3.7	3.86	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. Mitral insufficiency noted in this patient at 5.0 m/sec. 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



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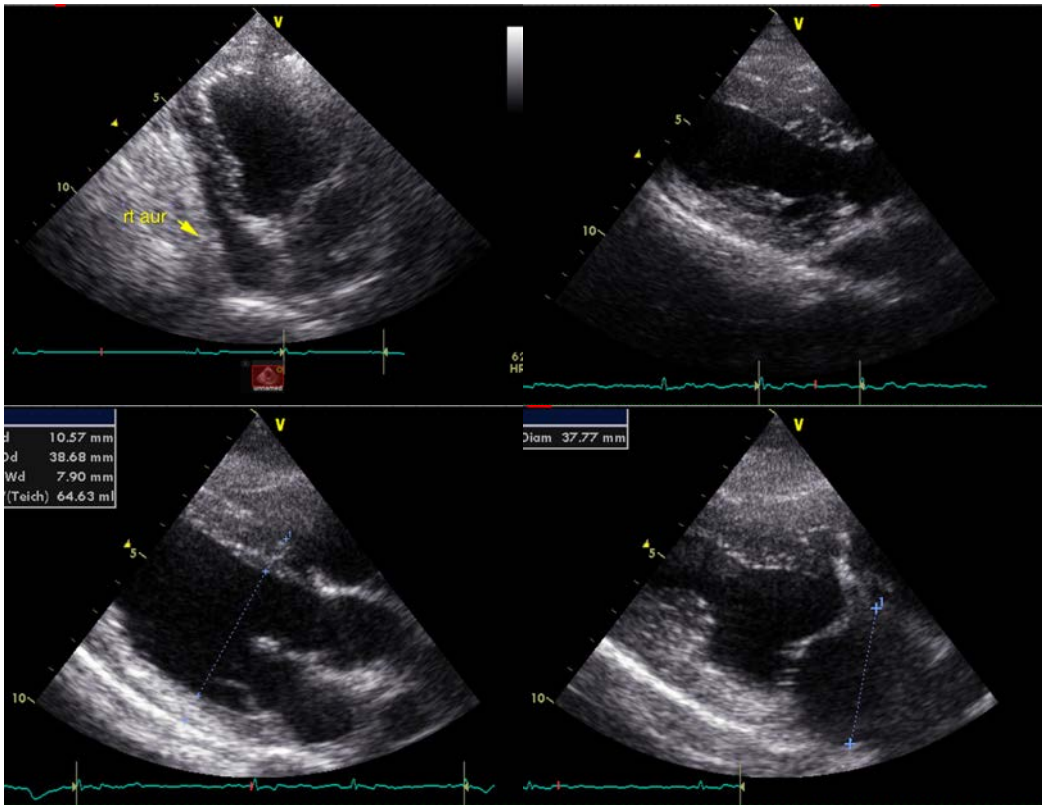
ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **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). At the time of the sonogram there was no evidence of pericardial effusion or masses. Bradyarrhythmia appeared to be present.

ULTRASONOGRAPHIC FINDINGS

- Minor mitral insufficiency, stage B1 valvular disease

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of significant disease. No evidence of masses. No evidence of clinical cardiac disease at this time. The clinical signs are not cardiogenic.



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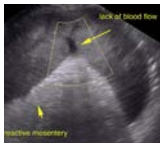
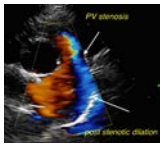
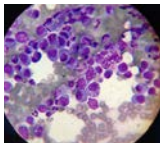
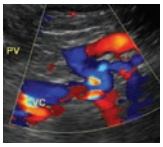

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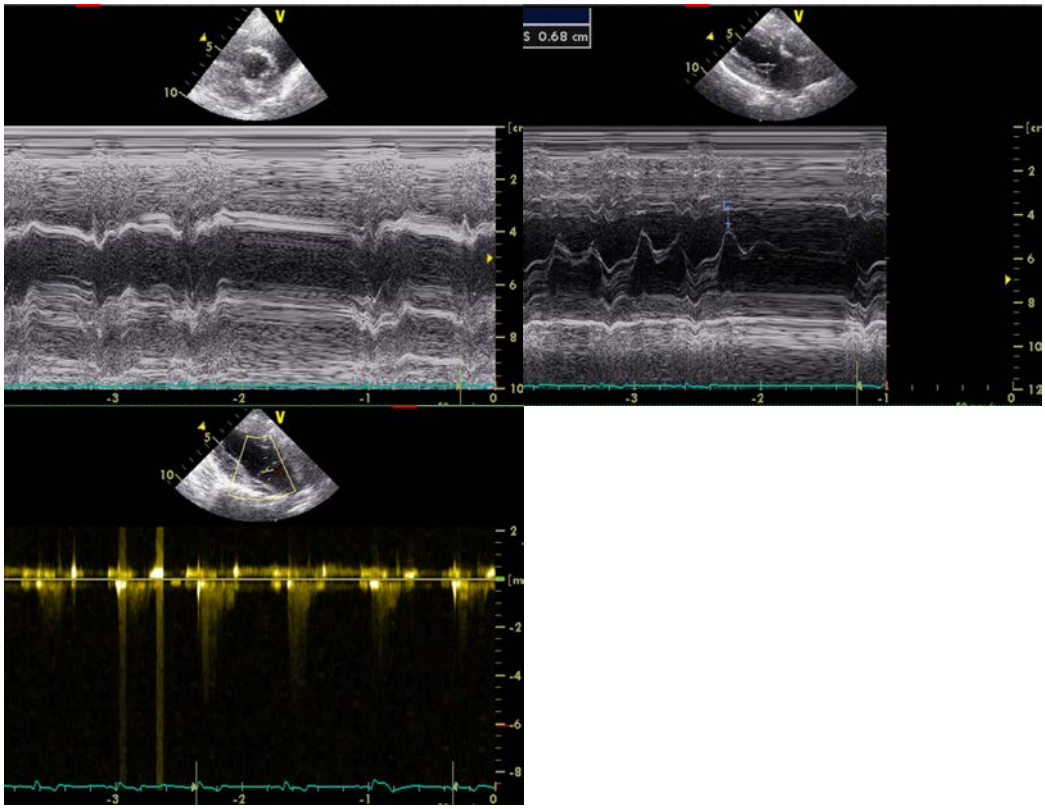

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com