SonoPath
Clinical Sonography & Telecytology
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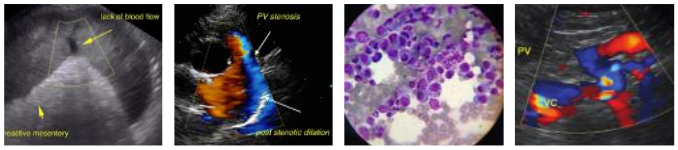

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Sterling Banks

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
4 years

WEIGHT
14.8lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Emily Kalenius, DVM

HOSPITAL NAME
Willamette Veterinary Hospital

REFERRING VET
Dr. Kalenius

INVOICE
20428

DATE
8/9/21

PRESENTING CLINICAL SIGNS

History: 8/6 presented for collapse and tachypnea. Treated with Injectable furosemide and PO prednisolone. Presented to Wilvet 8/7 for respiratory distress. Quickly responded to sedation, furosemide and oxygen.
-Abnormal PE/Chem/CBC/UA Results: No murmur. ProBNP 340 pmol/L. Labs WNL.
-Thoracic radiographs: FINDINGS: There is ill-defined increased interstitial opacity throughout the pulmonary parenchyma. The heart has rounded margins but is not significantly enlarged. Pulmonary vessels are not overtly abnormal on the available study. There are some very thin pleural fissure lines visible on the available images. On the orthogonal view there is ill-defined rounded opacity superimposed the medial aspect of the left caudal lung lobe however this is likely a relative area of rounded opacity. Abnormal pulmonary opacity creating this area of rounding is not definitively appreciable on the lateral views. Visible osseous structures are unremarkable. The spleen is enlarged and is visible within the ventral aspect of the middle abdomen. There is gas/fluid and soft tissue opaque material within the stomach. Not enough of the entire abdomen is visible for complete adequate assessment. CONCLUSIONS: The mild increased interstitial opacity in the available study is nonspecific. Possible pulmonary edema however may be considered. While the heart is not appreciably enlarged cardiac disease cannot be entirely ruled out with radiographs. Cardiogenic pulmonary edema versus nonspecific noncardiogenic pulmonary edema may be considered. Increased interstitial opacity related to possible embolic pneumonia, pneumonitis, or less likely neoplasia such as with lymphosarcoma for example cannot be ruled out as well. There is no appreciable evidence of definitive nodular pulmonary metastatic disease. The very thin pleural fissure lines are likely related to a very minimal amount of nonspecific pleural effusion.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is a mildly hyperechoic endocardium consistent with mild fibrosis. The endocardium also appears mildly remodeled. The papillary muscles are normal in size and hyperechoic. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. No obvious valve regurgitation. Blood flow through both the LVOT and RVOT is normal in velocity. No pleural or pericardial effusion seen. No obvious cardiac tumors.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	6.7	204	0.47	1.34	0.47	52	87
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE (Swe)** (Abbott)	**LA** 2D short axis Base view (cm) (Abbott)		**LVOT VEL** (m/s)	**RVOT VEL** (m/s)	**E max** (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	1.3	1.3	1.2		0.8	0.7	NM

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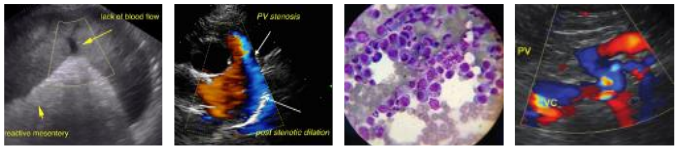

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Note: All measurements based upon multi-modal images and methods. An average value is reported.
Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac structure and function. The LV wall thickness is normal, and there is no evidence of elevated left atrial pressure or underlying pathology at this time. There is mild remodeling and fibrosis of the left ventricular wall, which is considered likely a normal finding. Given these findings, no medications are indicated.

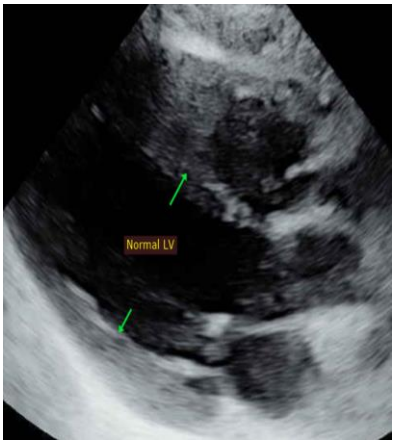
These findings would suggest a non-cardiac origin of the clinical signs. Follow up should be dictated by the radiograph report and/or clinical progression/presentation.

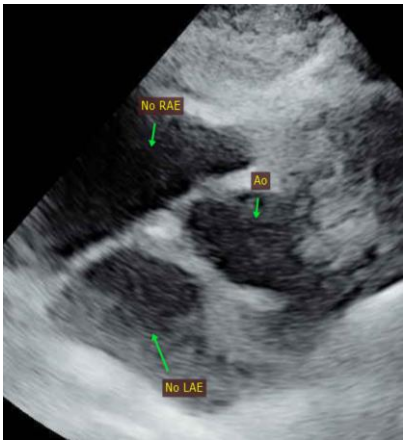
No obvious structural cause for BNP elevation is seen here. A flaw of the BNP test is false positives, which may be the case; however, alternative causes for elevation should be considered, including decreased renal clearance, hypertension, etc. If no obvious cause is identified, reassessing this patient in 6-12 months is recommended to ensure early disease was not missed.

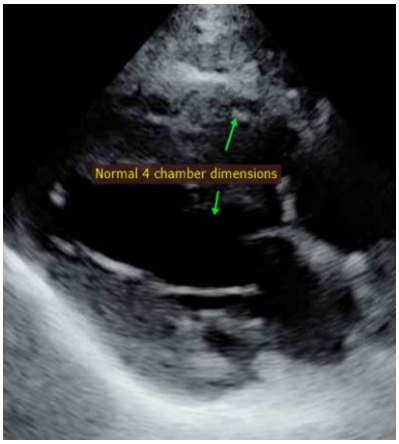
No cardiac contraindication for general anesthesia. Risk for complication with steroid use typically follows LA dilation, which in this case is low. That being said, any cat can experience unexpected signs of intolerance and monitoring of RR/RE is advised particularly in the initiation phase.

Recommend recheck echocardiogram in 1 year to screen for any progressive issues.

IMAGES







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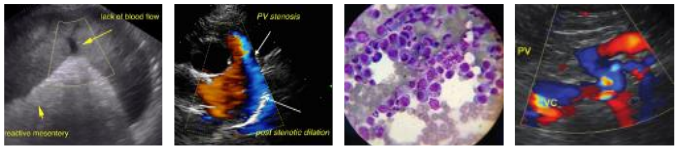

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com