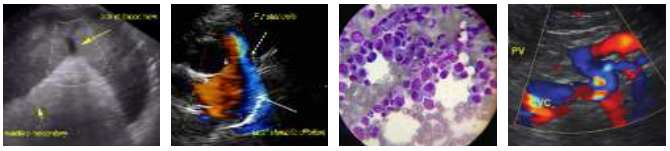
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Payton Randolph

SPECIES
Canine

BREED
Lab/Mix

SEX
FS

AGE
10 Years

WEIGHT
46.8

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

IMAGING PERFORMED BY
Kim Liedberg

HOSPITAL NAME
SVS Imaging

REFERRING VET
Dr Gimenez, Gurnee Animal Hospital

INVOICE
47415

DATE
9-17-21

PRESENTING CLINICAL SIGNS

Weight loss, Coughing sudden decreased energy. Hind feet dragging while walking. Eating slower but same amount PE: no heart murmur or arrhythmia. X-rays show subjectively enlarged heat with possible heart base tumor. Multifocal to coalescing soft tissue opacities. (faint round splotches in lung parenchyma)Patient has been on proin for management of urinary incontinence. Also on prednisolone 10mg PO BID which has caused significant PU/PD. Decreased pred dose to 5mg in pm. improvement in energy level and perkiness since starting the prednisolone.
Abnormal PE/Chem/CBC/UA Results: BW: slight increased neutrophils. UA: free catch USG 1.014 3+occult blood.

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			1.0	1.0	20	46	0.5
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	94	1.0	0.8		3.3	3.1	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size and structure. Chamber volume and blood echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. The **left ventricle** presented normal free wall and septal thicknesses with linear contour. Mild papillary muscle hypertrophy in the left ventricle lumen was noted. The **myocardium** presented some echogenic remodeling consistent with expected age-related change. **Contractility** of the ventricular walls was subnormal as indicated by the fractional shortening measurement above. The **left ventricular outflow** tract demonstrated normal laminar flow with subjectively unremarkable structure. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated expected findings for this age patient. The **right ventricle** was of overall normal size (1/3 diameter of LV), with subjective decreased right ventricle lumen volume. The right ventricular free wall exhibited a subtly hypoechoic primarily ovoid nodular mass lesion measuring approximately 2.5 x 2.4 cm. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No dilation due to heartworm disease, cor pulmonale, stenosis, or overt pulmonary hypertension was noted. No obvious visible **pericardial** or free pleural fluid was present. The **mediastinum** was free of overt masses in the visible window.

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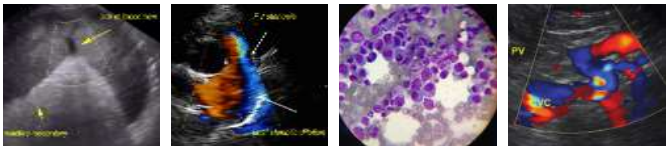

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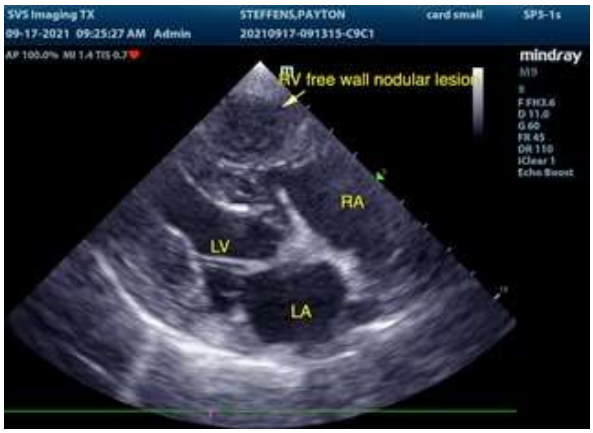
ULTRASONOGRAPHIC FINDINGS

- Myocardial remodeling with subjective right ventricle free wall nodular mass lesion.
- Subnormal myocardial contractility.
- Normal left atrium.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Infiltrative myocardial neoplasia affecting the right ventricle as a top differential diagnosis although generalized myocardial remodeling with potential for fibrosis also possible. At this time, no overt evidence of pericardial or overt pleural effusion. However, given the multifocal to coalescing soft tissue opacities noted on radiographs, potential for pericardial neoplasia versus other pulmonary pathology is possible. Sonographic assessment of the abdomen may be considered to assess for concurrent or primary pathology. Serial sonographic monitoring of the heart is recommended for further assessment; however, a very guarded prognosis is indicated. Given the subnormal myocardial functionality, Pimobendan trial at 0.3 mg/kg po bid may be considered with assessment of clinical response. However, no overt evidence of congestive failure was present.



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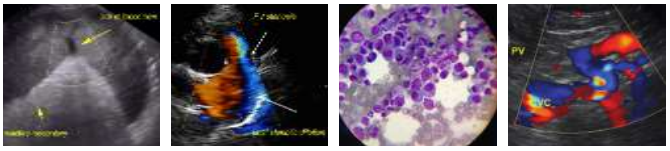

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. 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