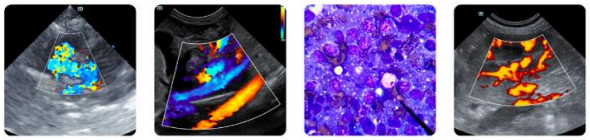


PATIENT

Doc Fravel

SPECIES

Canine

BREED

Pit Bull

SEX

MN

AGE

11.7 yrs

WEIGHT

68 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Rodriguez

HOSPITAL NAME

Foxfield VS

REFERRING VET

Rodriguez

INVOICE

10808

DATE

4/15/26

PRESENTING CLINICAL SIGNS

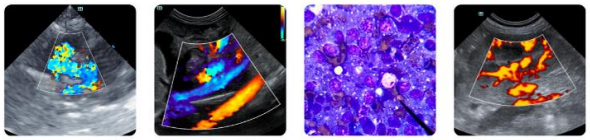
Bradycardia and murmur. BP: systolic 155.
Abnormal PE/Chem/CBC/UA Results: Alb: 2.5, ALK: 1606, SDMA: 14.9, T4: 0.8, USG: 1.013, UCCR: 12

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	**MR VMAX** (m/s)	**TR VMAX** (m/s)	**LA/AO** (M-Mode)	**LA/AO** (Heart Base; Swe)	**FS** (%)	**EF** (%)	**EPSS** (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	-	-	-	1.25	39	70	0.45
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT**	**LAD** LA MAX 4 Chamber	**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	NM	2.0	1.2	68 lbs.	4.1	4.3	-

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented mild thickening consistent with mild degenerative change / endocardiosis. Doppler indicated mild centrialzied to eccentric MR. 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 or chamber overload. **Tricuspid** valvular assessment demonstrated mild thickening with mild TR on Doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** 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. No echographically detectable evidence of cardiac / pericardial tumors was visible. Pronounced bradycardia to unspecified arrhythmia was noted.



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Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no evidence of urine or lumen sediment, mineral, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture.

No evidence of pathology in the area of the aortic trifurcation.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.0 cm in length. The right kidney measured 6.8 cm in length.

Adrenal Glands

The left adrenal gland was enlarged, exhibiting nonhomogeneous, nonmineralized parenchyma. The left adrenal gland measured 3.5 cm x 2.0 cm.

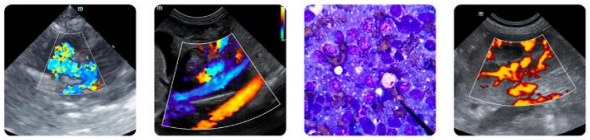
The right adrenal gland was normal to borderline subnormal in size, given patient's body weight, exhibiting symmetrical contour and mild heterogeneous, nonmineralized parenchyma. The right adrenal gland measured 0.57 cm width at the caudal pole.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of masses or nodules. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/ Gallbladder

The liver presented subjective mild to possible moderate enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size containing primarily anechoic content with mild, nonorganized gallbladder debris. The cystic and common bile ducts were normal.



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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty without evidence of retained ingesta or foreign material. Mild retained gastric fluid was noted.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The area of the pancreas was sonographically normal.

Free Abdomen

Area of indistinctly marginated, nonuniform, mild hyperechoic omentum was noted cranial abdomen and subjectively medial to the spleen. No evidence of effusion, masses, or lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

- Mitral valve insufficiency (B1)
- Tricuspid valve insufficiency – no overt clinical pulmonary hypertension
- Pronounced bradycardia / unspecified arrhythmia
- Age-related renal changes
- Left adrenal mass
- Hepatopathy – subjective benign
- Mild gallbladder debris (non mucocele)
- Nonspecific cranial abdomen nonuniform hyperechoic omentum – suspect nonspecific staetitis or possible atypical lipoma

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

ECG or Holter monitor is recommended for further classification of the bradycardia and unspecified arrhythmia. There is no obvious indication for cardiac medication for structural / functional cardiomyopathy. DCM criteria were not met.

The left adrenal mass is highly suggestive of neoplastic criteria, i.e., carcinoma, pheochromocytoma, or other with benign etiologies such as hyperplasia or adenoma not definitively excluded. Serial monitoring of systemic BP for evidence of hypertension and urine metanephrine level, if hypertension is present, is recommended. LDDST indicated if clinical signs consistent with Cushing's Syndrome are noted. Elective anesthesia is not advised pending further monitoring of blood pressure and classification of arrhythmia.

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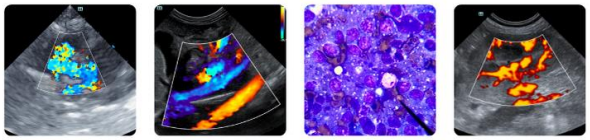

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

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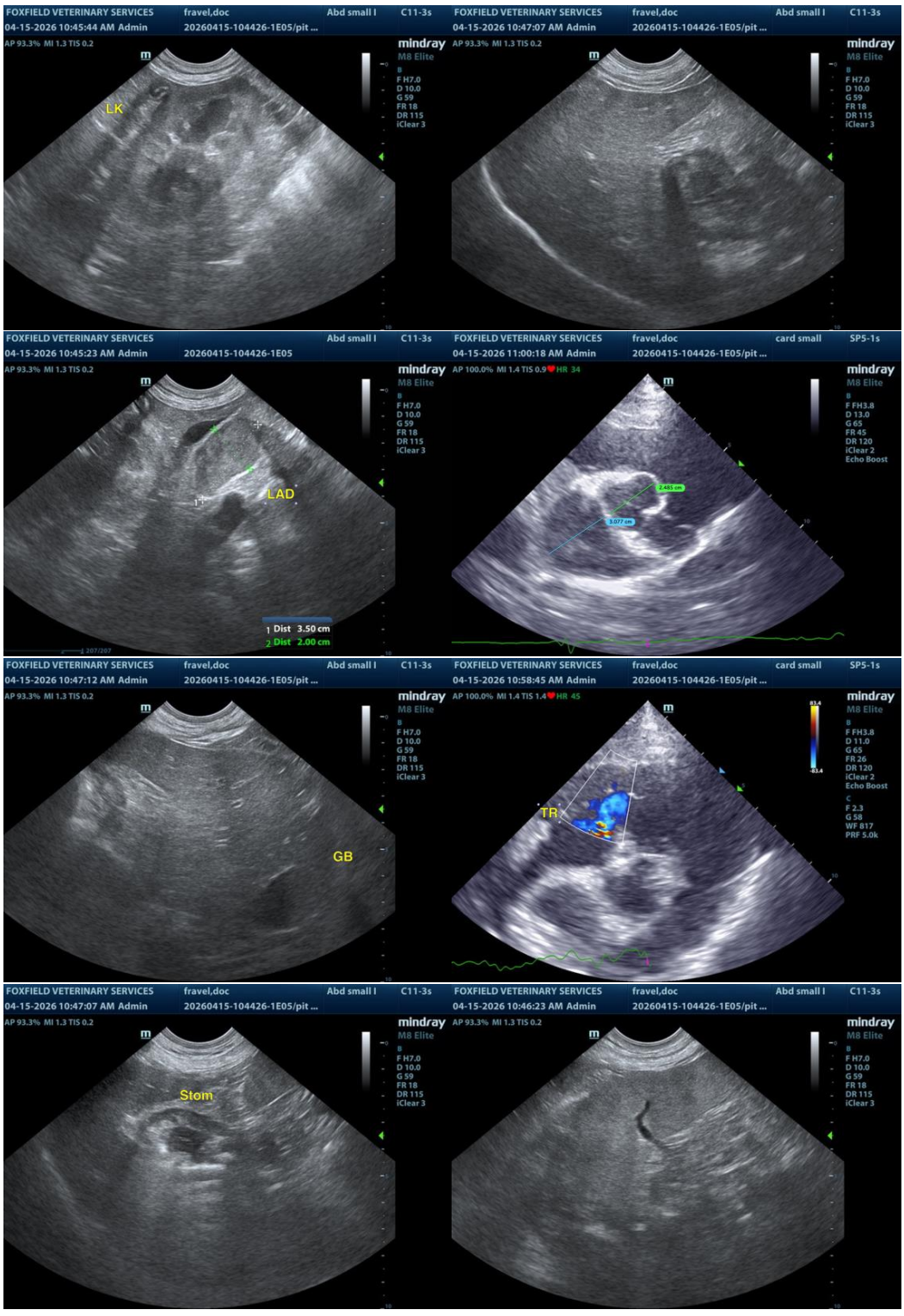

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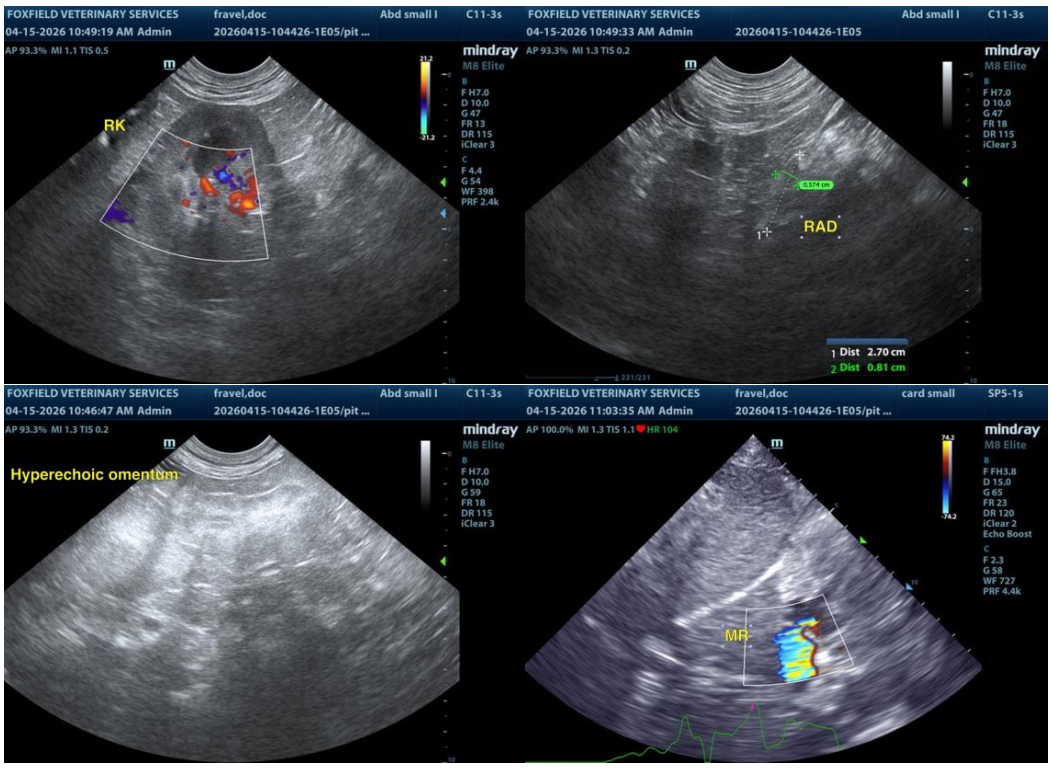

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com