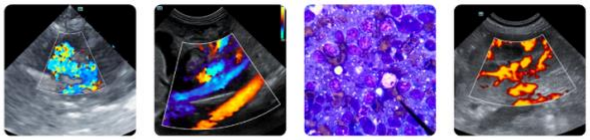


PATIENT

Ruger Wyke

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Neutered Male

AGE

11 Years 5 Months

WEIGHT

8.2 Pounds

INTERPRETED BY

Eric Lindquist, DMV, DABVP (CFM), Cert. IVUSS

IMAGING PERFORMED BY

Ashley Whitesell

HOSPITAL NAME

Dickson AC

REFERRING VET

Dr. Peyton Bramlett

INVOICE

36605

DATE

4/14/26

PRESENTING CLINICAL SIGNS

History: 03-30-2026, Vomiting/Diarrhea, runny stool 2/27/26 and one episode of vomiting 2/27/26, Started liquid Metro two weeks ago. Heart murmur 4/6, Collapsing trachea, Blood Pressure Measurement: Cuff Size 2, Location left forelimb, right lateral recumbency, Systolic 135 mmHg, Diastolic 68 mmHg, MAP 86 mmHg, HR 165 bpm

Abnormal PE/Chem/CBC/UA Results: 1/6/2026: TP 7.6, Alkp 186

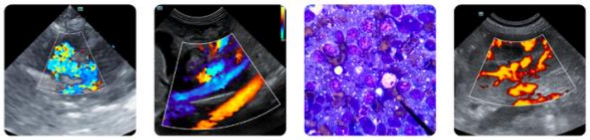
ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

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	--	--	1.1	1.1	50	--	NM
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (lbs)	**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	127	1.60	1.00	8.2 lbs	2.2	1.8	--

E-wave velocity: 0.9

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated mild centralized insufficiency. 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 adequate linear morphology. 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



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infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex, and no evidence of pelvic dilation was present. The left kidney measured 4.8 cm. The right kidney measured 4.95 cm. Occasional cortical cysts were noted in the kidneys. Blood flow to the kidneys appeared to be adequate on color flow assessment.

Adrenal Glands

The **left adrenal gland** revealed mild heterogenous parenchymal changes, normal size and contour. The left adrenal gland measured 0.62 cm at the caudal pole and 0.6 cm at the cranial pole.

A hyperechoic nodule (0.8 cm) was noted in the **right adrenal gland**. The right adrenal gland measured 0.7 cm at the caudal pole and 0.8 cm at the cranial pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The **liver** was uniformly swollen. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. Occasional hyperechoic nodules were noted. The **gallbladder** was overdistended with some striating bile, consistent with immature mucocele formation.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

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Diffuse hyperechoic changes were present in the area of the **pancreas**. The pancreatic remodeling was evident with multifocal to diffuse hyperechoic changes. These changes are consistent with fibrosis, amyloid, saponification of fat and may contain areas of low-grade chronic active inflammation especially if pain on imaging (+ Murphy sign) was present +/- focal subxiphoid palpation reveals pain response. No overt masses were noted. This is a moderate change. Variable hypoechoic areas were also noted in the midst of the hyperechoic changes with potential low grade inflammation.

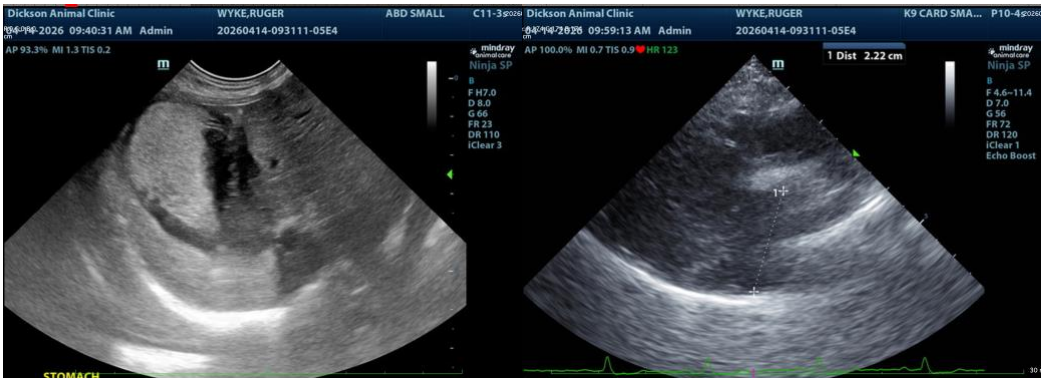
ULTRASONOGRAPHIC FINDINGS

- Stage B-1 valvular disease
- Emerging gallbladder mucocele
- Benign hepatopathy
- Right adrenal nodule- appears subjectively benign
- Heterogenous left adrenal gland
- Suspect low-grade focal chronic active pancreatitis with pancreatic remodeling
- Age-related renal changes with occasional cortical cysts
- Geriatric abdomen otherwise

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflo maintenance or similar protocol if anesthesia is desired. Blood pressure recommended if not already performed and target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 6 months, earlier if murmur grade increases or clinical signs initiate.

Broad spectrum antibiotics, diet change to hydrolyzed diet, 24-hour NPO, and GI protectants are all indicated.



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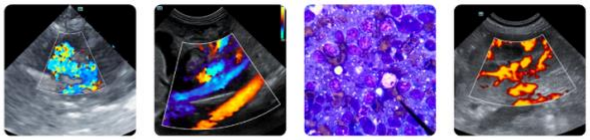

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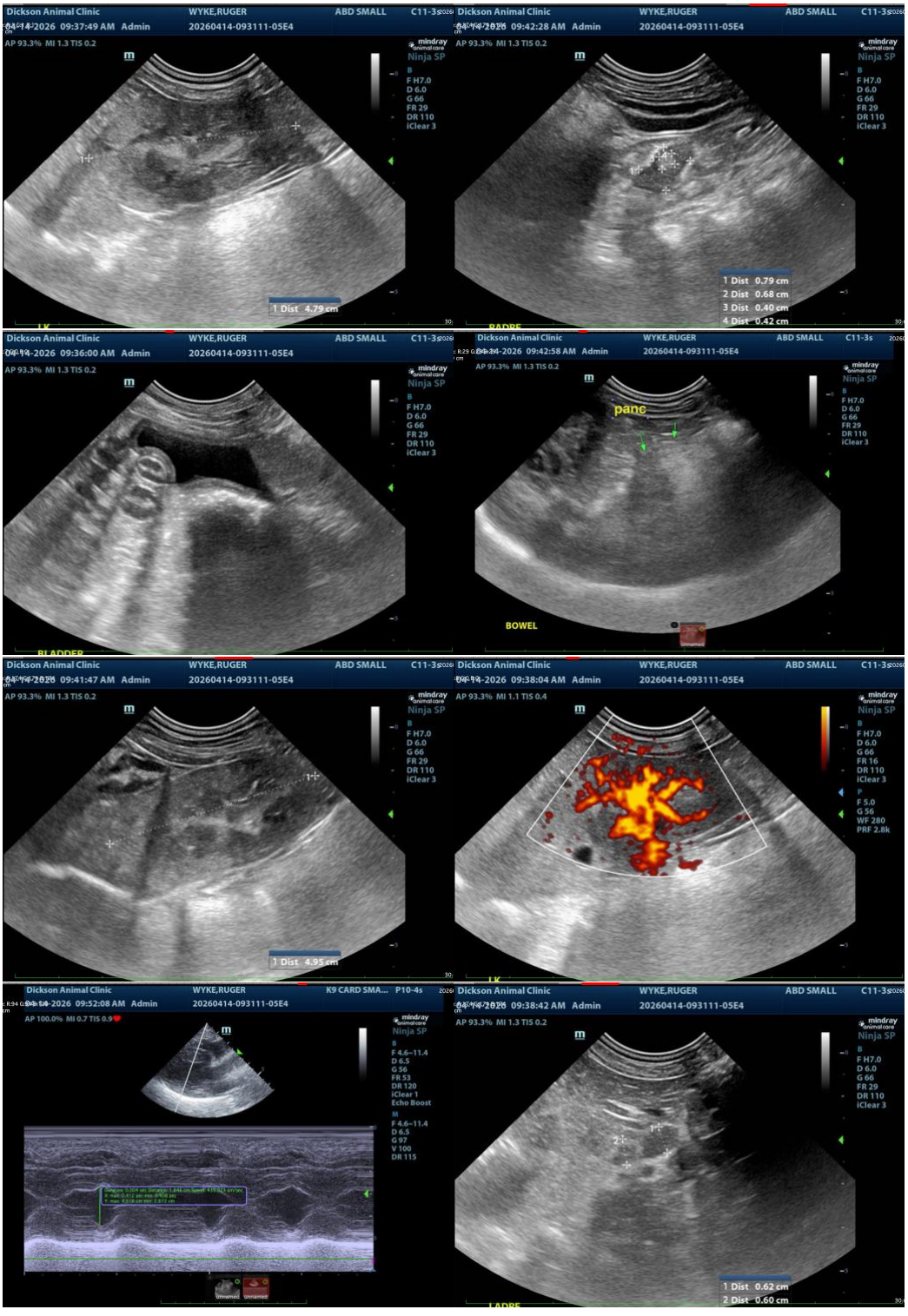

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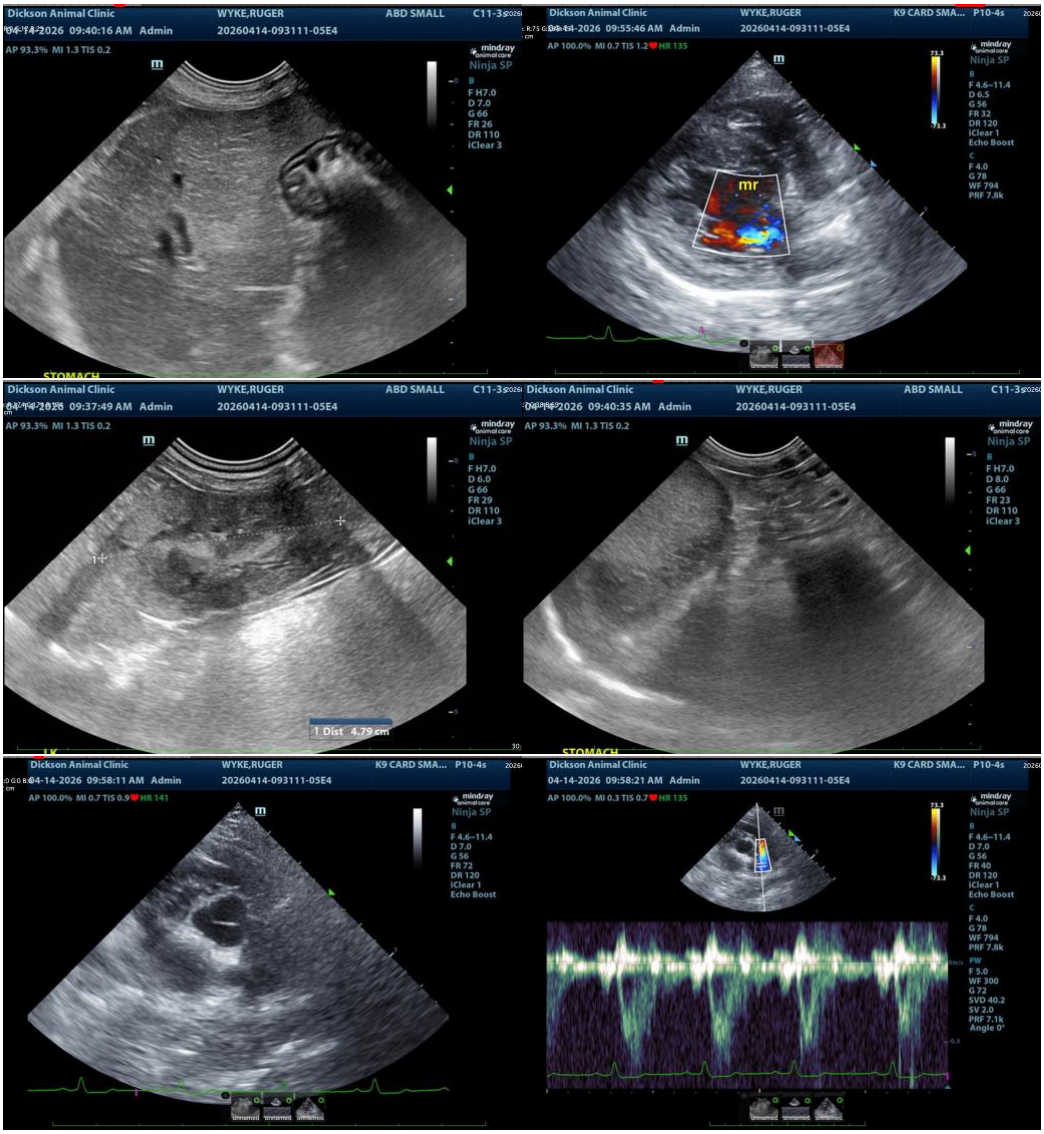

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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(CFM), Cert. IVUSS,
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