



PATIENT PRESENTING CLINICAL SIGNS

Moses Hantak History: Persistent cough w/ collapsed trachea- want to be sure of cardiac function + R/O choleliths.
 Current meds: cough tabs and famotidine
 Abnormal PE/Chem/CBC/UA Results: 10/14/21 WNL

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Yorkie

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. 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. **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). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

SEX

Neutered male

AGE

15 years

WEIGHT

6.5 lbs

INTERPRETED BY

Eric Lindquist, DMV
 DABVP, Cert. IVUSS

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	1.02	30	61	0.3
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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				
PATIENT		1.1	0.6	6.5 lbs	2.06 max	1.74	

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

Chester AH

REFERRING VET

Dr. Migliaccio

INVOICE

92440

DATE

10/18/21



PATIENT **ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Moses Hantak

Urinary System

SPECIES

The **urinary bladder** revealed minor, apical polypoid change with slight mucosal remodeling and anechoic urine. There was no evidence of calculi or masses. The pelvic urethra was imaged 1.0 cm beyond the cystourethral junction.

Canine

BREED

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. Slight pyelectasia was noted along with corticomedullary calculi. The left kidney measured 3.6 cm. The right kidney measured 3.73 cm.

Yorkie

SEX

Neutered male

Adrenal Glands

AGE

Both **adrenal glands** were visualized and recognized as having largely normal shape, size, position and acceptable echogenicity for this age group and breed. Some heterogeneity was noted within the adrenal parenchyma without concerning capsular distortion. These changes are likely age related but should be monitored by sonogram should the patient be suspected of having adrenal disease. The left adrenal gland measured 2.07 x 0.68 cm at the caudal pole and 0.65 cm at the cranial pole. The right adrenal gland measured 1.64 x 1.12 cm at the cranial pole and 0.63 cm at the caudal pole.

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Spleen

INTERPRETED BY

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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 was noted.

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Liver

HOSPITAL NAME

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The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. 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. There was no overt suspicion of neoplasia.

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Gastrointestinal

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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.

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PATIENT *Pancreas*

Moses Hantak

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.

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ULTRASONOGRAPHIC FINDINGS

Normal echocardiogram.

Moderate degenerative renal changes with mineralization.

Minor bladder thickening with apical polyp.

Stable geriatric abdomen.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no evidence of cardiac pathology. The cough is not deriving from cardiac disease in this patient. There is no significant secondary changes noted in the heart owing to respiratory disease.

Urinalysis is warranted if not already performed to assess for any evidence of urinary tract infection or inflammatory sediment.

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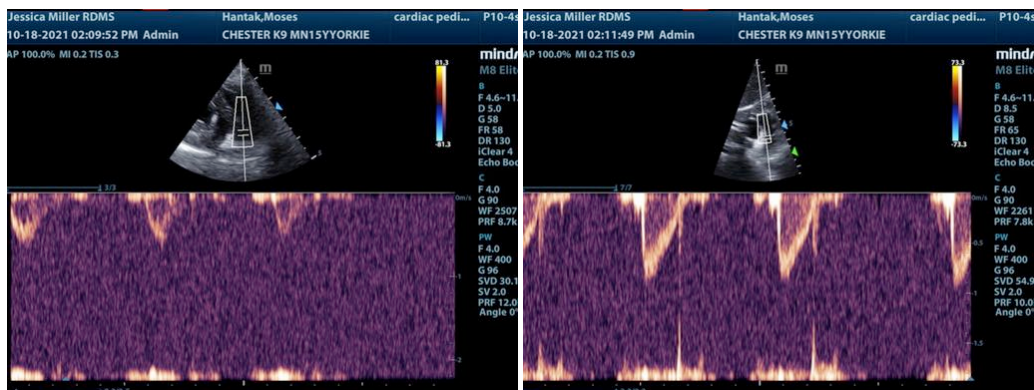
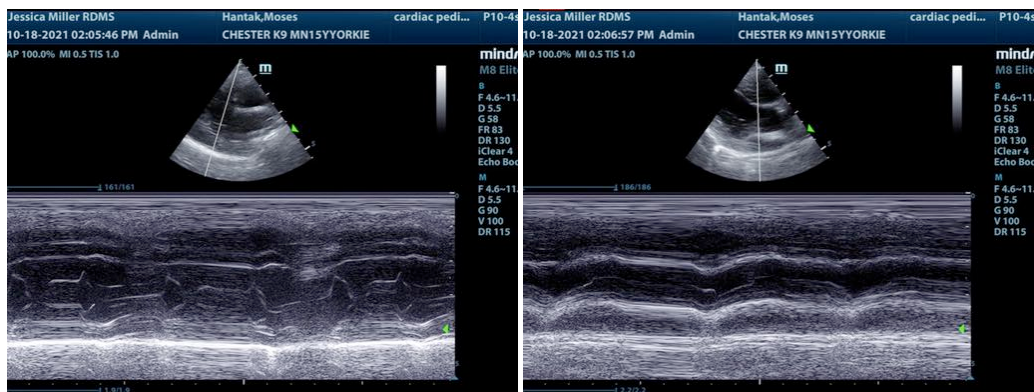
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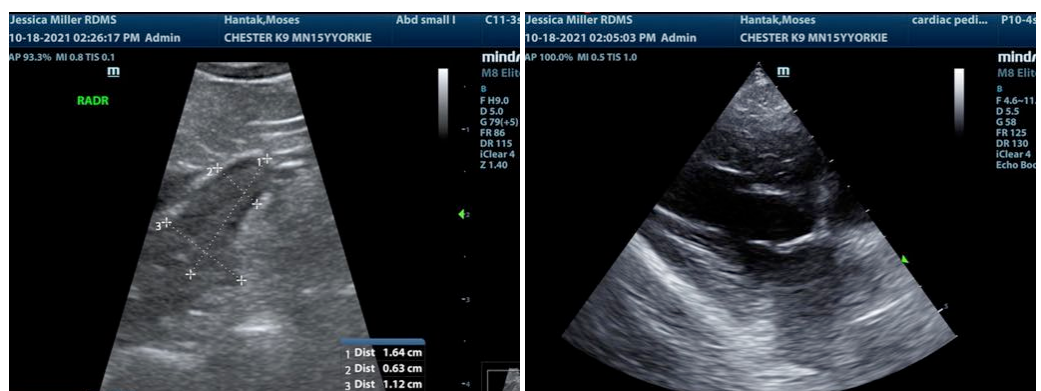
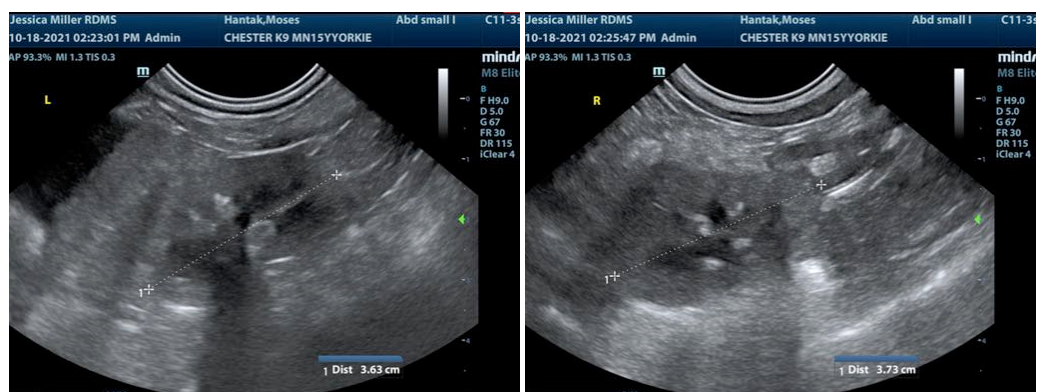
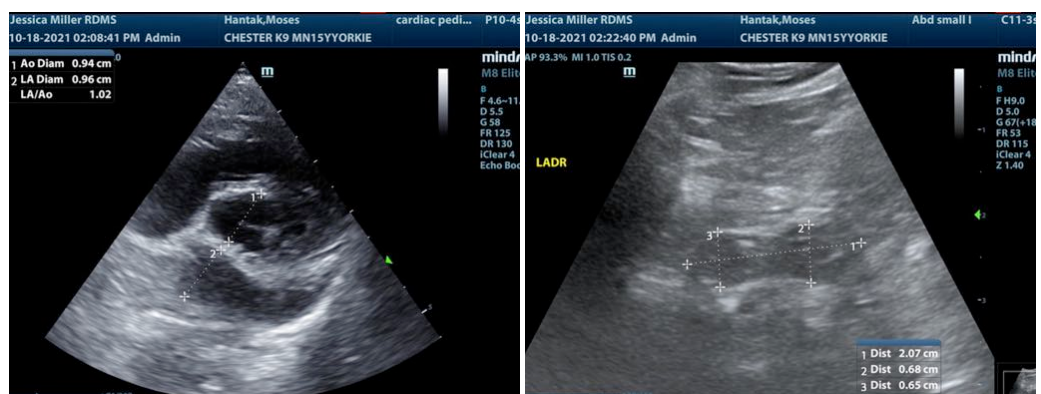
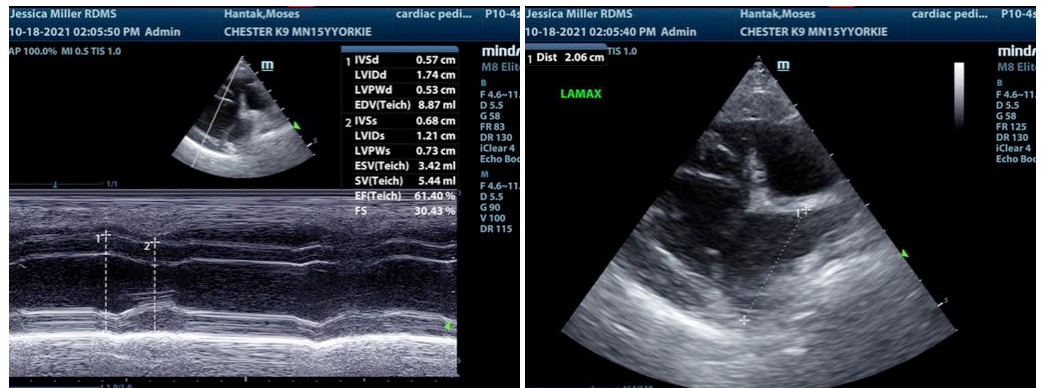
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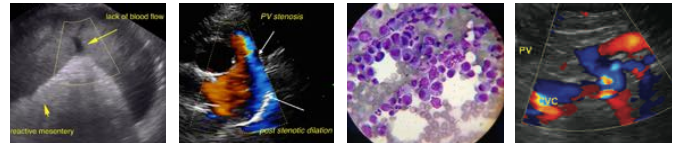
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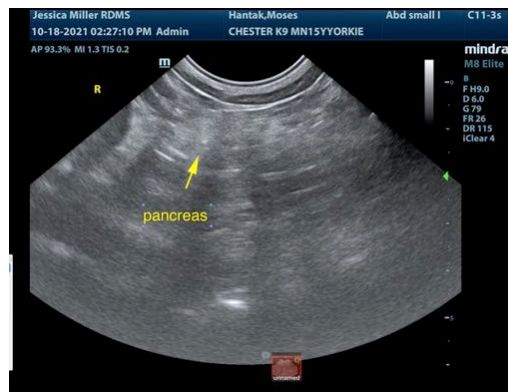
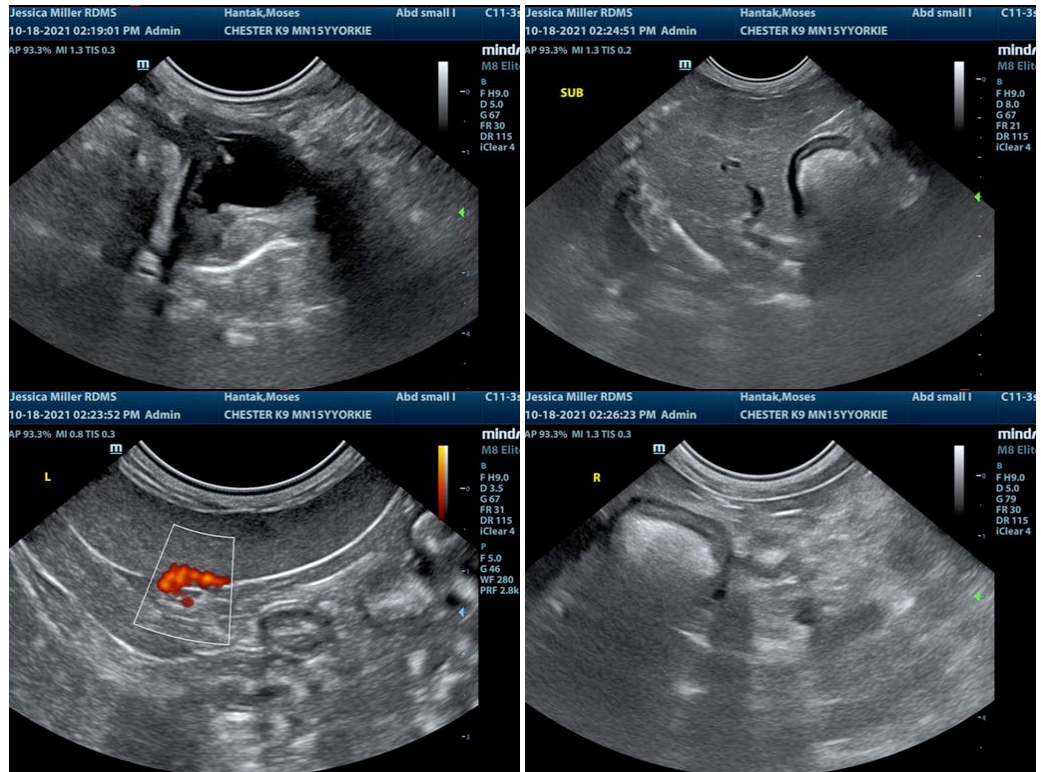
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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