



PATIENT PRESENTING CLINICAL SIGNS

Zoe Cerf History: 15 YO Fs Yorkie. Hx of mild cough/hack fr several months. Radiographs indicate hilar edema. Currently on low dose Lasix and Enacard with borderline positive response. Current symptoms include lethargy, anorexia, hacking cough mildly productive, arched back, difficulty prehending food to eat, no murmur ausculted. There is a strange cracking or snapping noise when the right thoracic wall is palpated in the region to the 5th intercostal space. **NO Pain IN THIS AREA.** Ultrasound of the right thoracic wall was performed with a 12 mHz probe. Please see images marked in an area where there may be a loss of the linear pattern. PLEASE NOTE THAT THIS ULTRASOUND WAS PERFORMED "SINGLE HANDED" WITH UNCOOPERATIVE DOG SITTING ON MY LAP. Likely that Only Dr. L can make sense out of these images. Zoe looks like she is on the big slide down hill. Complicated case. Needs Superman Lindquist with super vision.

Canine

BREED Yorkie

Abnormal PE/Chem/CBC/UA Results: WNL

SEX

Spayed Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

AGE

15 years

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 was noted. Ureteral papillae were normal.

WEIGHT

4 lbs

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 3.0 cm.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Cerf

Adrenal Glands

The regions of the **adrenal glands** were imaged with no evidence of pathology.

HOSPITAL NAME

Midland Park VH

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 was noted.

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Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. There was capsular retraction owing to parenchymal remodeling. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The

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10/7/21



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gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

SPECIES

Canine

Gastrointestinal

BREED

Yorkie

The **stomach** in this patient presented concentric thickening with a 0.7 cm gastric wall with stasis. The small intestine and colon were unremarkable.

SEX

Spayed Female

Pancreas

A mild amount of **pancreatic** remodeling was noted. There was no evidence of significantly active inflammation.

AGE

15 years

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

WEIGHT

4 lbs

The echocardiogram in this patient demonstrated normal to subnormal **left atrial** size based on 3 separate methods of LA evaluation. The **mitral** valve was mildly thickened, yet no clinically insignificant 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 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. Minor **right ventricular** wall thickening was noted, yet not clinically significant. **Pulmonary outflow** tract assessment revealed normal valve structure 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.

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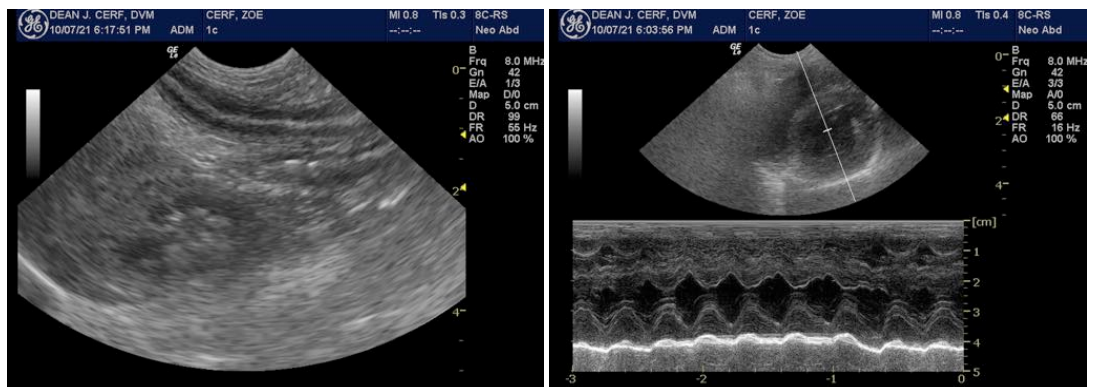
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT			1.1	1.3	50		0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	LA (2D short axis Base 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				4 lbs		1.6	

ULTRASONOGRAPHIC FINDINGS

- Moderate hepatic remodeling.
- Moderate degenerative renal changes.
- Chronic gastritis pattern.
- Mildly thickened mitral valve.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cough is likely primary respiratory with concurrent gastritis. I recommend blood pressure measurements to assess for any hypotension.





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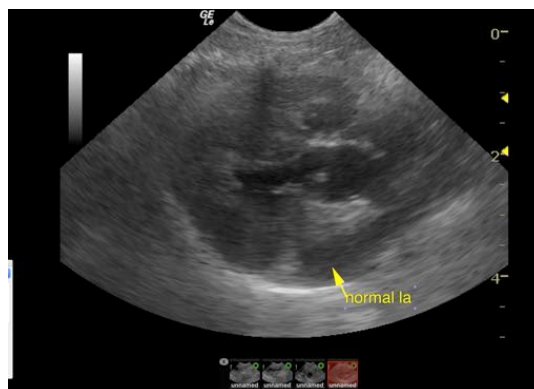
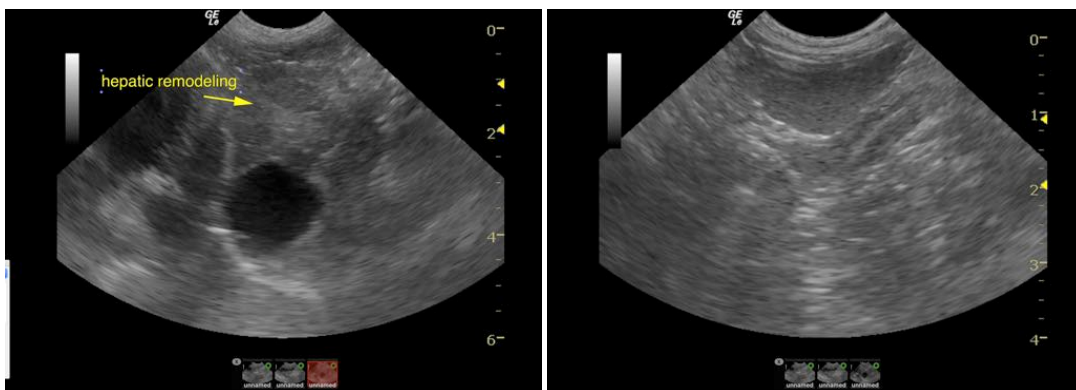
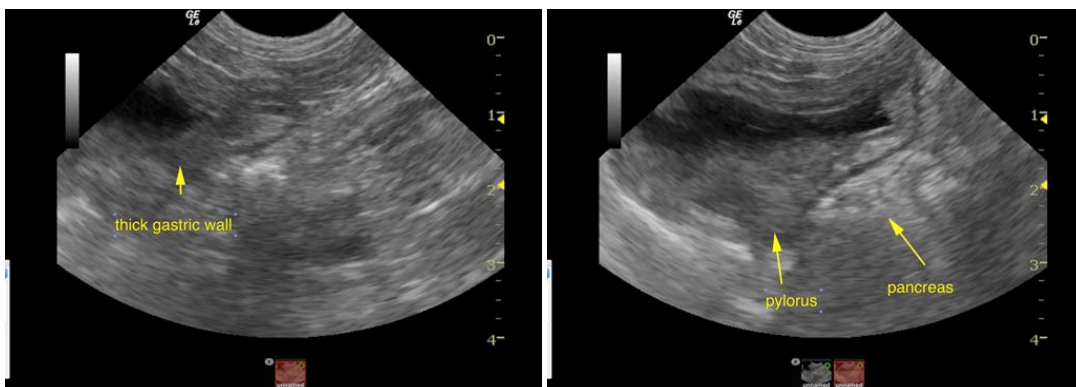
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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