



## PATIENT

Chloe Coenen

## SPECIES

Canine

## BREED

German Shorthaired Pointer

## SEX

FS

## AGE

12

## WEIGHT

60 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Jill Rumachik

## HOSPITAL NAME

Clarity Imaging LLC

## REFERRING VET

Dr. Mark Baenen

## INVOICE

14320

## DATE

7/20/22

## PRESENTING CLINICAL SIGNS

3 day hx of acute abdominal pain and labored breathing

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

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	<1.3	28-40	40-100	<0.6
PATIENT				1.2	41.4	75.6	0.25
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				
PATIENT	NM	NM	Nm		3.0	2.9	

### Cardiac Presentation

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.

### Urinary System

The urinary bladder was distended in size yet with subjective normal tone containing anechoic urine with very minor nondependent, mildly hyperechoic sediment. The area of the urethra was not definitively visualized.



<b>PATIENT</b>	The area of the aortic trifurcation was free of pathology.
Chloe Coenen	
<b>SPECIES</b>	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 pyelectasia was present. No evidence of retroperitoneal inflammation / effusion was noted. The left kidney measured 7.0 cm in length. The right kidney measured 7.2 cm in length.
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### **Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.74 cm width at the caudal pole and 0.82 cm width at the cranial pole. The right adrenal gland was indistinctly visualized yet overtly normal in size, position, and shape. The right adrenal gland measured 0.61 cm width at the caudal pole.

### **Spleen**

The spleen exhibited subjective mild generalized enlargement yet maintained symmetrical capsule contour with subtle generalized splenic parenchyma heterogeneity, yet normal overall splenic parenchyma echogenicity. Normal splenic vascularity evidenced by adequate blood flow was present on power doppler at the level of the hilus. No evidence of splenic vein thrombosis was noted. No splenic masses or nodules were present.

### **Liver/ Gallbladder**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

### **Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

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 parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

### **Free Abdomen**

No omental masses, lymphadenopathy or evidence of peritoneal free fluid was present.



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## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

- Normal echocardiogram
- Nonspecific subjective mild splenomegaly - no evidence of splenic torsion or overt neoplastic criteria
- Otherwise sonographically normal abdomen

### Secondary Findings

- Moderately distended urinary bladder

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

An obvious or definitive cause of reported acute abdominal pain was not definitively evident in this study. No evidence of visceral pathology such as splenic mass, splenic torsion, as evidenced by normal splenic vascularity, pancreatitis, gastrointestinal, hepatic disease, or peritoneal effusion.

The distended urinary bladder was of unclear clinical significance. Assessment of urination pattern and /or for evidence of stranguria/dysuria could be considered If clinically indicated.

The subjective mild splenomegaly was not overtly suggestive of neoplastic criteria with considerations including patient variant, splenomegaly secondary to sedation if clinically applicable, benign hyperplasia, hematopoiesis, or potential incidental splenitis. Assuming normal clotting status and using a 25-gauge needle, screening splenic FNA for cytology primarily to ensure only benign changes are present in the spleen could be considered. No evidence of cardiac or pericardial pathology was noted. Three view chest radiographs may be considered If not already done.

No indication for immediate surgical intervention is evident. A thorough muscular/skeletal and / or neurological examination to rule out extra-abdominal pain, if not done, is suggested.





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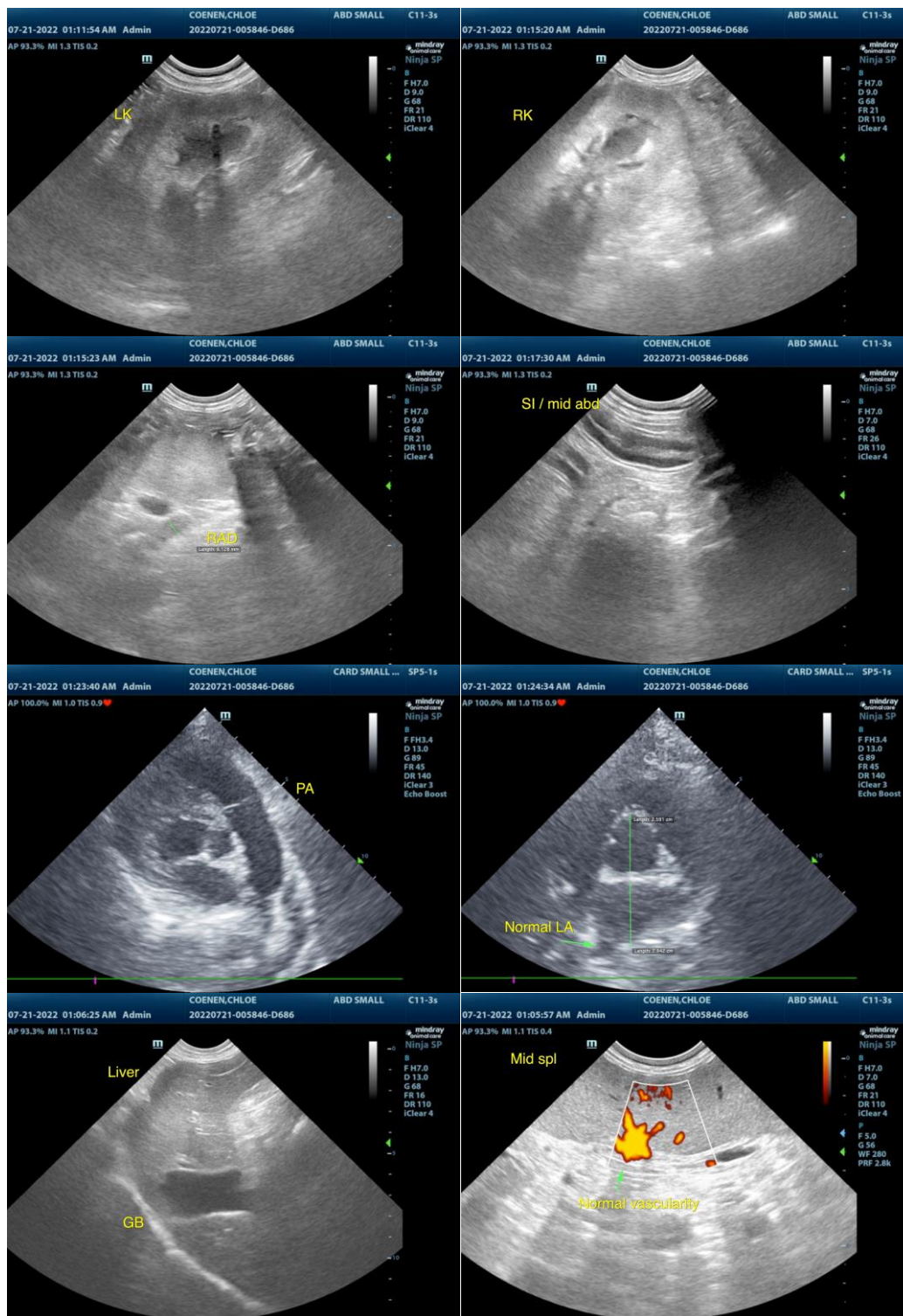
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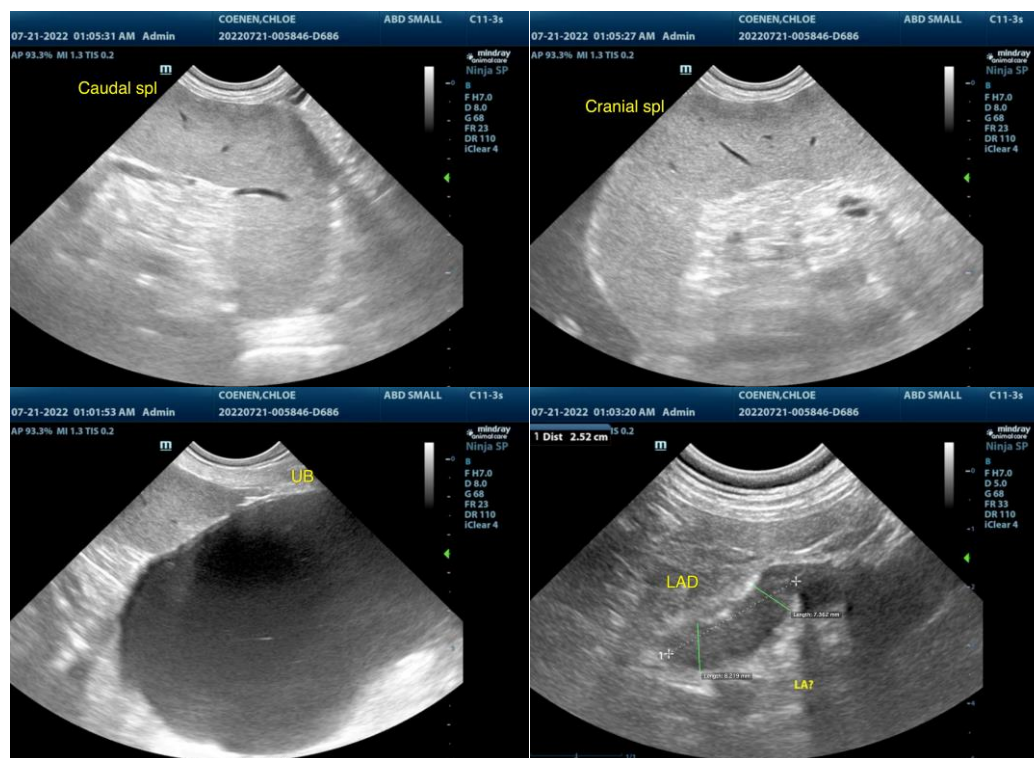
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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