


PATIENT PRESENTING CLINICAL SIGNS

Callie Farrell
SPECIES Canine
BREED Lab X
SEX FS
AGE 12 years
WEIGHT 43 kg

Musculoskeletal: distance exam only, L hock severely thickened (vs edema); mild muscle wasting along hips/epaxials GI/Abdominal Palpation: abdomen appears quite distended & somewhat pendulous, possible fluid wave on palpation, difficult to get a deep palpation bc nervous & ++ panting Heart/Cardiovascular: tachycardic, but no arrhythmia & very stressed in clinic tachycardic globoid heart fluid wave & reduced serosal detail pendulous abdomen inappetence acute diarrhea
 Abnormal PE/Chem/CBC/UA Results: CBC WNL except: MCS 61 (>61.6) Chem WNL except: 05/22: ALT 334 (<125) 264 ALP 229 (<212) 242 rads: Radiograph (RL Abd & Thorax, patient ++ stressed on table): - moderately reduced serosal detail - some wispy appearance along ventral body wall - tail of spleen is lifted from body wall & dorsal border of cranial aspect appears somewhat wavy/not smooth - stomach ~empty & moderately gas filled - caudal aspect of liver extends beyond rib margin, appears to have a mass present (~1.5-2 inches) - limited view of GIT dt reduced detail - mild B-I pattern generally - small ST opacities - end on vessels vs tiny mets? - cardiac silhouette significantly enlarged, globoid shape

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN
INTERPRETED BY

 R. McKenzie Daniel,
 DVM, DABVP

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Chedoke AH

REFERRING VET

Dr. Dudley

INVOICE

14983

DATE

9-27-22

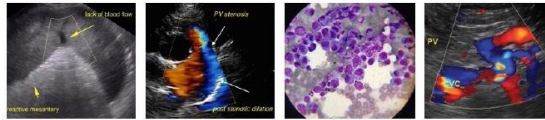
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT				1.3	55	87.9	0.2
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis 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	161		0.9		3.4	2.7	

Cardiac Presentation

Moderate volume pericardial effusion with evidence of diastolic collapse of the right atrial wall, consistent with cardiac tamponade, was noted. Mildly nonhomogeneous well-demarcated lesion in the area of the heart base and right atrium / auricle was present measuring approximately 6.0 cm in diameter. LV Function was adequate with overtly normal LV volume. The left atrium was normal in diameter. Right ventricle was normal in volume. Pulmonic and aortic valves were overtly normal in appearance. Normal RVOT velocity was present. 1



PATIENT	Urinary System
Callie Farrell	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 uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.
SPECIES	
Canine	The area of the aortic trifurcation was free of pathology.
BREED	
Lab X	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 6.5 cm in length. The right kidney measured 7.5 cm in length.
SEX	
FS	Adrenal Glands
AGE	No overt pathology was noted in the area of the left or right adrenal glands.
12 years	Spleen
WEIGHT	The spleen was overt normal in size, contour, and overall echogenicity with mild splenic displacement secondary to the presence of peritoneal effusion. No obvious evidence of splenic masses or nodules was noted.
43 kg	Liver/ Gallbladder
INTERPRETED BY	The liver was enlarged with rounded to swollen hepatic contour and generalized moderate coarse parenchyma echotexture exhibiting evidence of parenchymal remodeling. No overt hepatic masses or nodules were noted. Subjective mild hepatic vein congestion at the level of the hepatic vein caudal vena cava junction was noted. The gallbladder was non-distended in size with minor gallbladder wall edema containing anechoic content with minor luminal debris. The cystic and common bile ducts were normal.
R. McKenzie Daniel, DVM, DABVP	Gastrointestinal
IMAGING PERFORMED BY	
Kelly Reschny	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.
HOSPITAL NAME	
Chedoke AH	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.
REFERRING VET	
Dr. Dudley	Normal visible colon wall layers were present with apparent formed feces in lumen.
INVOICE	Pancreas
14983	The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.
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9-27-22	



PATIENT

Free Abdomen

Callie Farrell

Moderate volume peritoneal effusion exhibiting minor echogenic changes, which may suggest mild fluid cellularity, was present with generalized primarily uniform hypoechoic mesentery. No omental masses were evident.

SPECIES

Canine

ULTRASONOGRAPHIC FINDINGS

BREED

Lab X

SEX

FS

AGE

12 years

WEIGHT

43 kg

- Heart base / right atrial mass
- Moderate volume pericardial effusion and secondary cardiac tamponade
- Hepatomegaly - consistent with hepatic congestion
- Mild gallbladder wall edema
- Moderate volume ascites exhibiting mild echogenic changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the clinical signs is cardiac tamponade due to pericardial effusion secondary to heart base / right atrial mass consistent with neoplastic criteria. The most likely tumor, given this location, is hemangiosarcoma although the potential for other tumor types including chemodectoma or other is possible.

Pericardiocentesis with cytology and analysis of pericardial effusion is recommended for possible definitive diagnosis. Overall prognosis is poor, given the likelihood of heart base or right atrial neoplastic criteria. The possibility of multicentric neoplasia, given the mild echogenic changes associated with the peritoneal free fluid, is considered less likely yet cannot be definitively excluded.

Oncology consult with potential chemotherapy or radiation may be considered, which may extend the average survival time. Pericardiocentesis to allow increased heart function with monitoring for recurrent pericardial effusion and/or tumor progression would be a more conservative approach.

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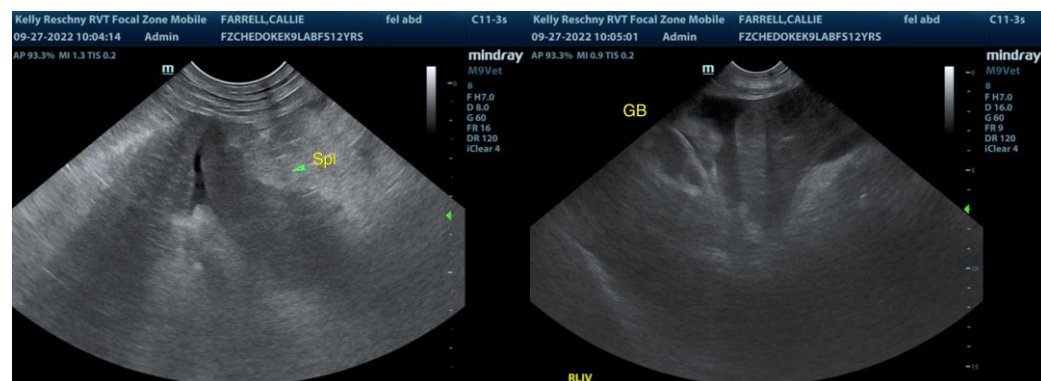
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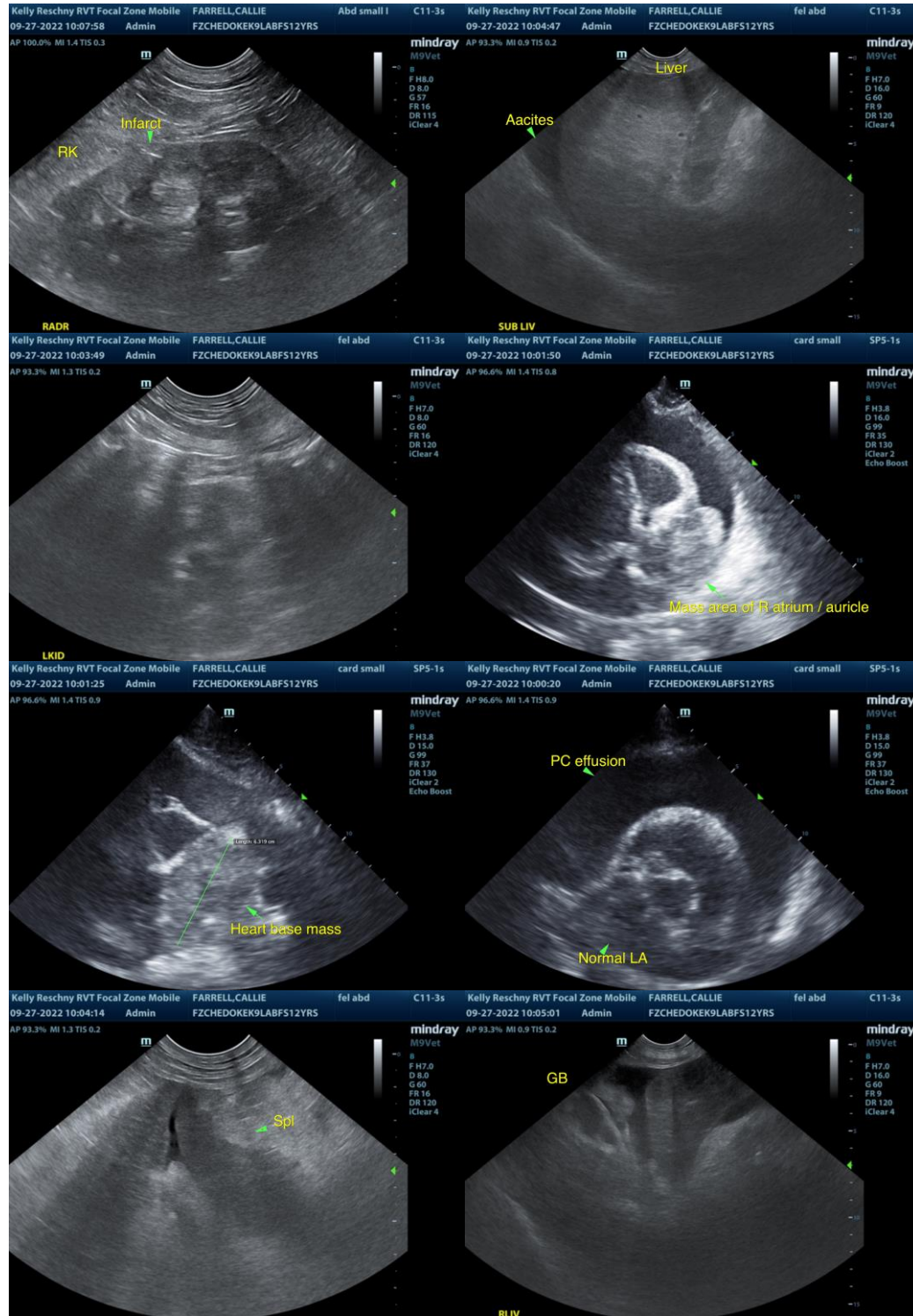
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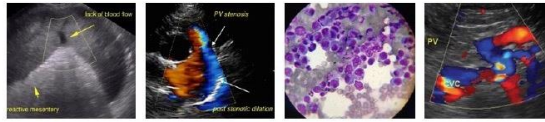
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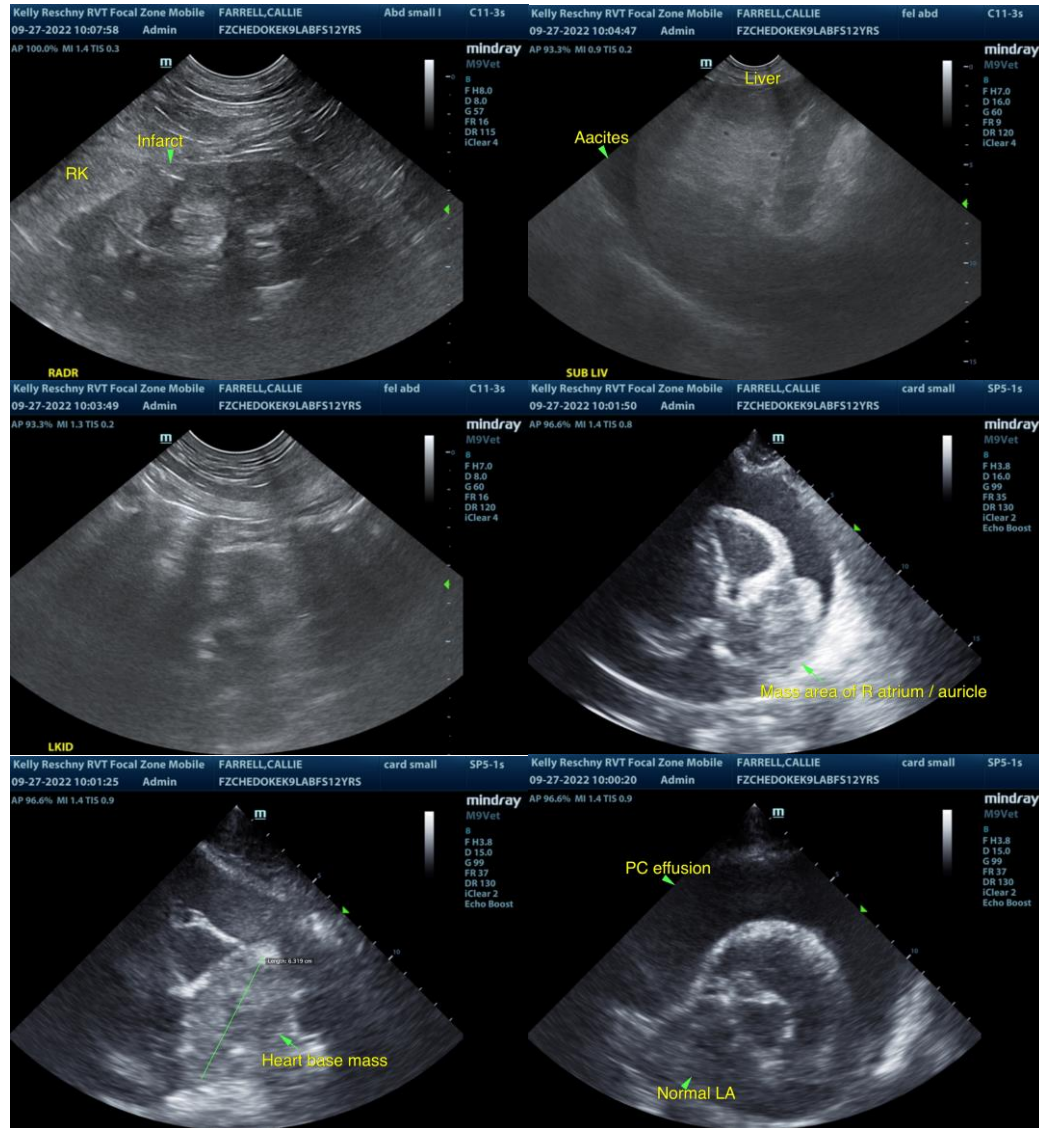
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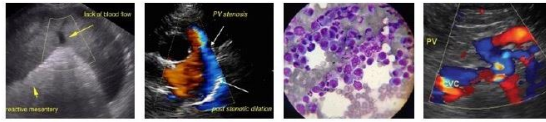
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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



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