

**PATIENT PRESENTING CLINICAL SIGNS**

**Hudson Dahl** History: Severely distended tense abdomen, excessive panting weight gain not eating no bowel movements previous rDVM did adrenal gland test and was negative

**SPECIES** Abnormal PE/Chem/CBC/UA Results: please see attached rads.

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART**

**BREED**

Lab

**SEX**

MN

**AGE**

9 yr

**WEIGHT**

40.6 kg

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				1.0	46	77.3	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	192	1.3	1.3		4.0	4.6	

**INTERPRETED BY**

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DVM, DABVP  
(Canine and Feline)

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Burlington Lakeshore  
VH

**REFERRING VET**

Dr. Aziz

**INVOICE**

11064ag

**DATE**

07/08/2022

**Cardiac Presentation**

Moderate to significant volume pericardial effusion with diastolic collapse of the right atrium wall consistent with cardiac tamponade was present. Nonhomogeneous lesions associated with the RA/auricle measuring approximately 2.5 cm in diameter were noted. Potential for overlaying right auricle is possible. LV function is adequate as evidenced by the FS measurement. The LA exhibited mild volume contraction yet overall was normal in appearance without evidence of enlargement. The left ventricle was normal in volume. The pulmonic and aortic valves were overtly normal in appearance and outflow velocities. Minor tachycardia was present.

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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 were noted.

Normal size and margination was 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 6.3 cm in length. The right kidney measured 6.9 cm in length.

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**



**PATIENT**

Hudson Dahl

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.89 cm width at the caudal pole. The right adrenal gland was not definitively visualized owing to patient size and peritoneal free fluid.

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**Spleen**

The spleen was not definitively visualized potentially owing to volume contraction or displacement secondary to peritoneal free fluid. The possibility of splenic pathology cannot be excluded yet no obvious evidence of masses in the area of the left abdomen or spleen were noted.

**BREED**

Lab

**Liver**

The liver presented enlarged in size with symmetrical yet swollen contour. The parenchyma exhibited conserved uniform parenchyma with normal echogenicity isoechoic to the spleen and falciform fat. The hepatic vasculature was dilated in appearance, most notable at the level of the hepatic vein / caudal vena cava junction, without evidence of thrombosis.

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The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained variably echogenic, nonshadowing ingesta without signs of obstruction or foreign material.

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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.

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**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 was evident.

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**Free Abdomen**

Generalized hyperechoic mesentery was noted, no overt lymphadenopathy or omental masses were present.

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Severe volume peritoneal free fluid exhibiting subtle echogenic changes which may suggest minor cellularity was present.

**ULTRASONOGRAPHIC FINDINGS**

**REFERRING VET**

Dr. Aziz

- Moderate to severe volume pericardial effusion with secondary cardiac tamponade
- Suspect RA/auricle mass
- Congestive hepatopathy
- Severe volume peritoneal effusion

**INVOICE**

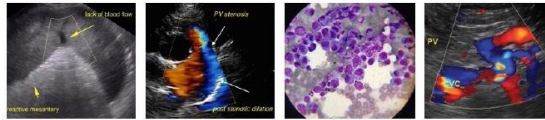
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the clinical signs in this patient is cardiac tamponade due to pericardial effusion and suspected to be secondary to cardiac neoplasia associated with the RA/auricle. The suspected mass was indistinctly visualized with potential for mild atypical right auricle. Benign etiologies cannot be

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definitively excluded but are thought less likely. Regardless the patient is in cardiac tamponade with secondary hepatic congestion and peritoneal free fluid.

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Referral for emergency pericardiocentesis with cytology +/- C/S of the pericardial effusion for definitive diagnosis is recommended.

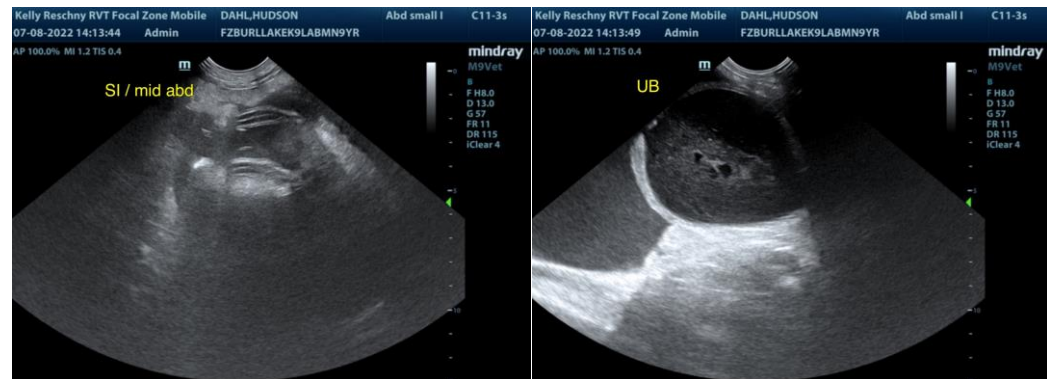
**BREED**

Lab

A very guarded to potential poor prognosis is indicated given suspicion for cardiac neoplasia and potential recurrence of pericardial effusion even with pericardial centesis.

**SEX**

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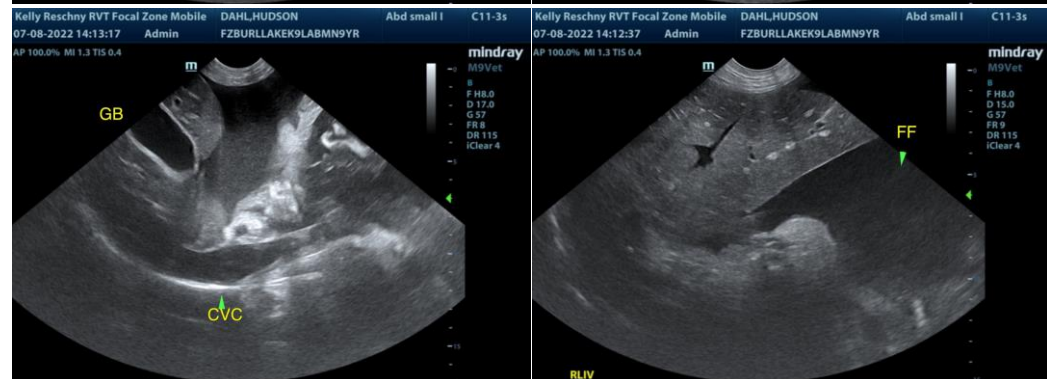


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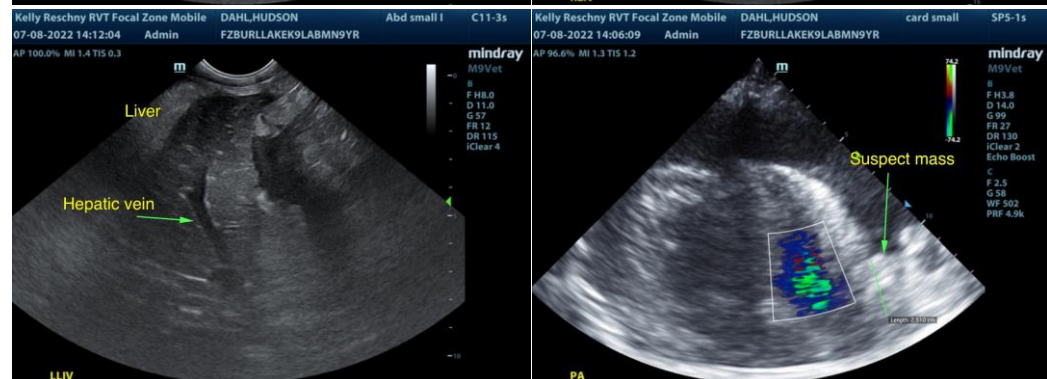
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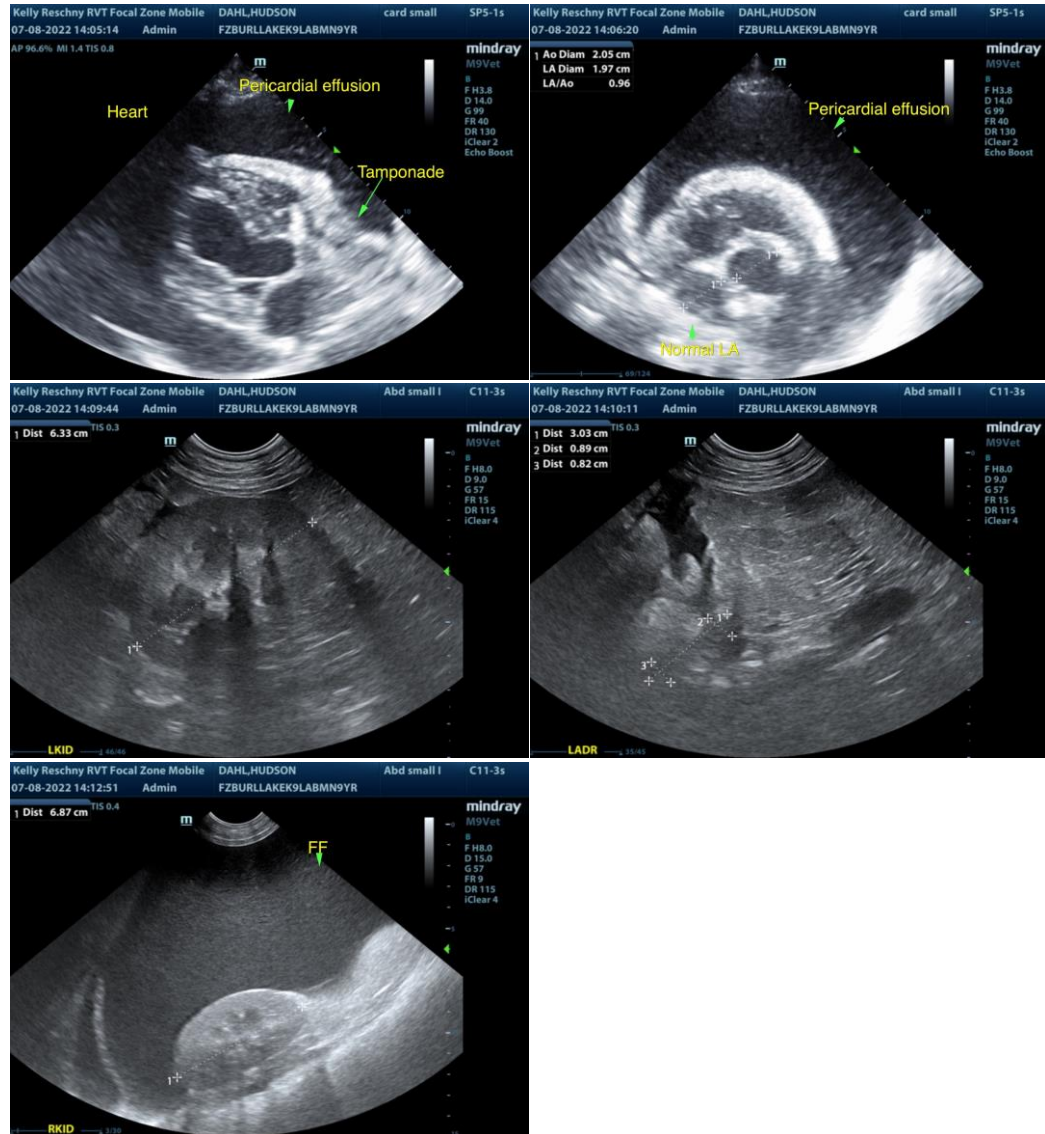
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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