



PATIENT

Crystal Blum

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Spayed Female

AGE

9 years

WEIGHT

12.55 lbs

INTERPRETED BY

Eric Lindquist, DMV,
DABVP, Cert. IVUSS,
CEO of SonoPath.com

IMAGING PERFORMED BY

Kelly Vazquez, CVT

HOSPITAL NAME

Animal Paradise
Hospital

REFERRING VET

Dr. ElShafie

INVOICE

31425

DATE

7/1/22

PRESENTING CLINICAL SIGNS

History: Free fluid in abdomen, 400 mls pulled off yesterday (blood-tinged), cardiomegaly. Current med: Furosemide 12.5 mgs. Amylase 1404, BUN 88, TP 5.3, glob. 2.1, RBCs 5.09, PLTs 590.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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.

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 right kidney measured 4.2 cm. The left kidney measured 3.5 cm.

Adrenal Glands

The right adrenal gland revealed an expansive mass invading into the vena cava and continued into the liver. The pathology extended for approximately 8.0 cm. The right adrenal gland measured 1.88 x 0.5 cm at the caudal pole and 0.58 cm at the cranial pole.

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.

Liver

The **liver** revealed multiple, expansive masses. The largest of which measured 3.65 cm. The hepatic veins and vena cava were dilated at 1.65 cm with free fluid. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. The hepatic lymph node was enlarged, rounded and hypoechoic measuring 1.76 cm.



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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.

SPECIES

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Pancreas

Yorkshire Terrier

Heterogenous **pancreatic** changes were noted.

SEX

Free Abdomen

Spayed Female

A moderate amount of ascites was present.

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ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Severe right-sided cardiac enlargement was noted with volume contracted with subjective volume contraction of the left heart. The right atrial to left atrial ratio was 3:1. Severe **tricuspid** insufficiency was noted measuring 4.5 m/sec. Severe pulmonary hypertension was noted. No pericardial or pleural effusion was noted.

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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	<1.3	28-40	40-100	<0.6
PATIENT		4.5	NM	1.0			0.1
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			0.79		1.36	1.5	

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ULTRASONOGRAPHIC FINDINGS

Right-sided heart failure with severe pulmonary hypertension.

Concurrent right adrenal mass, invasive into the vena cava with extension into the liver and liver masses.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The prognosis is poor. Humane euthanasia should be considered in this patient given the severe comorbidities.



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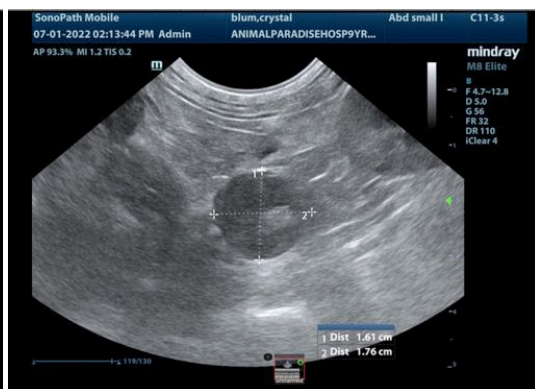
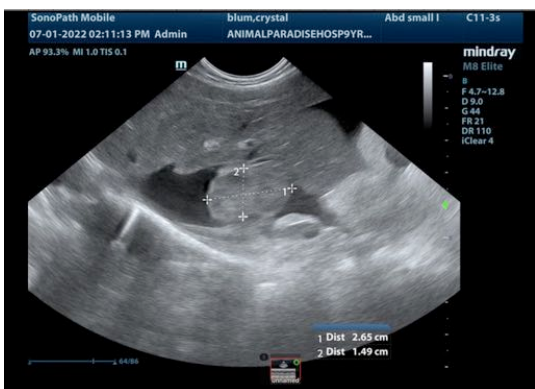
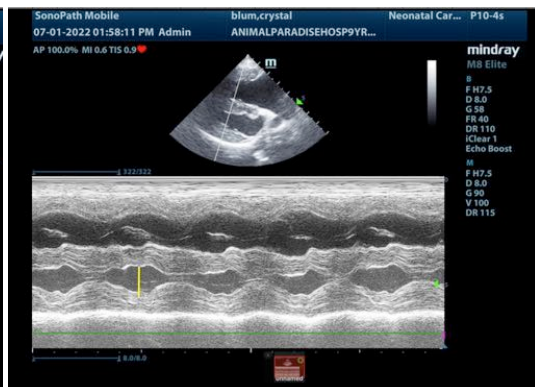
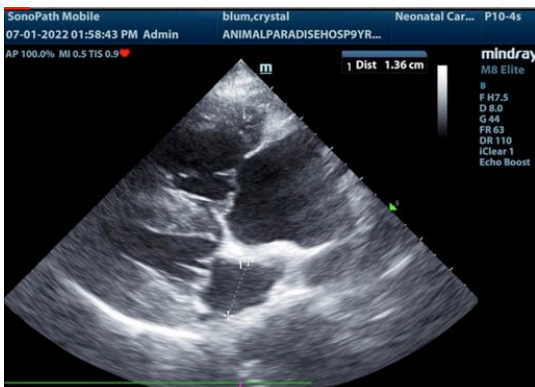
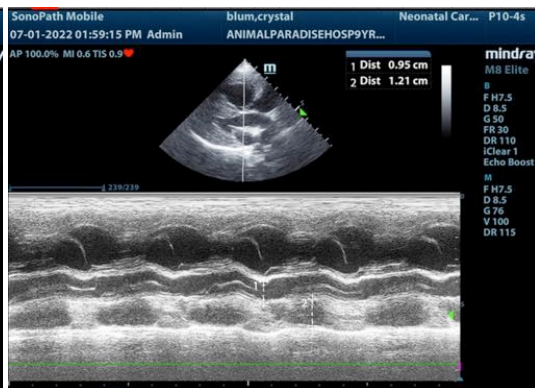
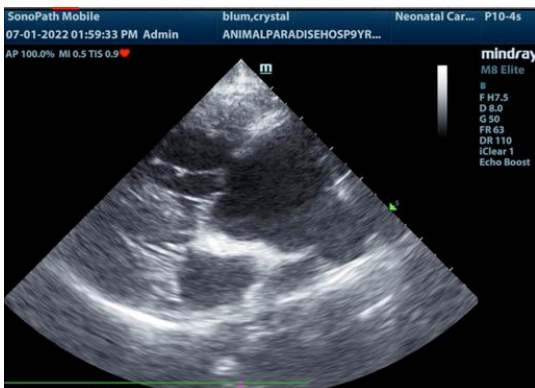
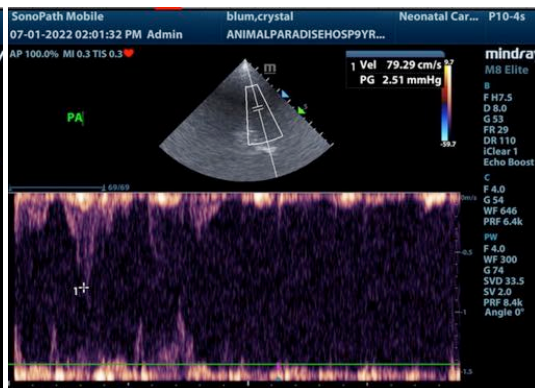
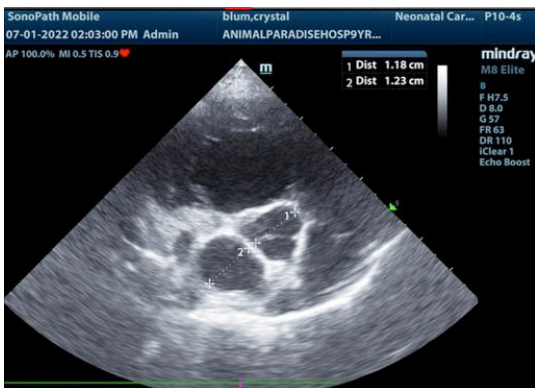
Dr. ElShafie

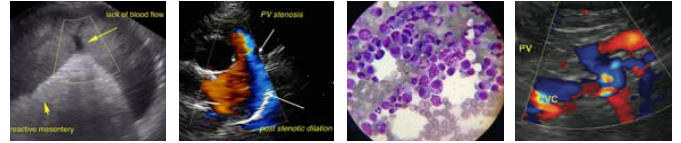
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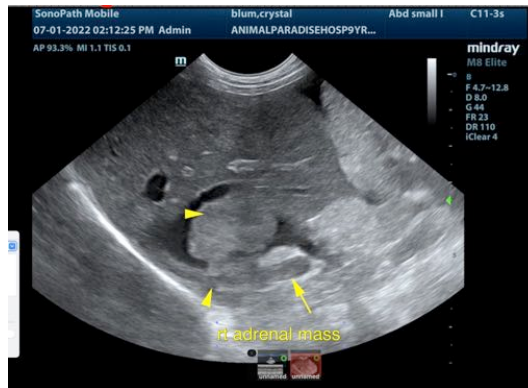
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

Info@SonoPath.com

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