



PATIENT

Nala Rodgers

SPECIES

Canine

BREED

Rod Ridge Mix

SEX

Spayed Female

AGE

10 years

WEIGHT

29.1 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Barnes

HOSPITAL NAME

Westview VH

REFERRING VET

Dr. Barnes

INVOICE

91560

DATE

8/30/21

PRESENTING CLINICAL SIGNS

History: Acute onset of lethargy, weakness, not walking
Abnormal PE/Chem/CBC/UA Results: A mild anemia RBC 5.14 (N 5.65-8.87), HCT 0.385, TP 47 (N 52-82), Alb 21 (N 22-39), Glob 26 (N 25-45), Creat 187 (N 44-159), Urea normal. Free fluid on AUS, tap and hemoabdomen, hypovolemia, Pulmonary osteomas, Splenic mass rupture and bleed

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** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. The left kidney measured 6.9 cm. The right kidney measured 5.76 cm.

Adrenal Glands

The **adrenal glands** were not visualized.

Spleen

The **spleen** revealed irregular, mixed, hypoechoic splenic mass with surrounding omental nodules. This is suggestive for spread into the regional mesentery.

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. Occasional hypoechoic nodule was noted. This may be age related; however, given the splenic pathology micrometastasis is a strong potential. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. The hepatic lymph nodes were unremarkable.



PATIENT *Gastrointestinal*

Nala Rodgers 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.

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Pancreas

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The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

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Free Abdomen

Free fluid was noted throughout the abdomen.

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ULTRASONOGRAPHIC EXAMINATION OF THE HEART

WEIGHT

29.1 lbs

The **left atrium** was volume contracted. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** was volume contracted. Hypocontractility was noted, this is consistent with likely shock given the abdominal presentation. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. 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.

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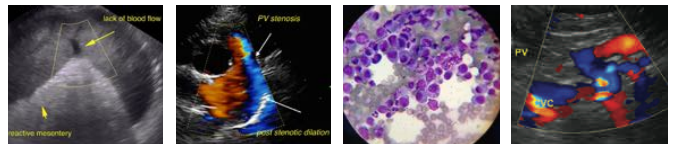
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CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
CARDIAC PARAMETERS	VMAX (m/s)	VMAX (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT			NM		30	80	NM
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
CARDIAC PARAMETERS	(BPM)	VMAX (m/s)	MAX (m/s)		2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT		NM	NM	29.1 lbs		2.0	



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ULTRASONOGRAPHIC FINDINGS

Ruptured splenic mass with heterogenous omentum.

Minor heterogenous hepatic changes.

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Heterogenous omental changes.

Shocky heart.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Plasma expansion is recommended +/- blood transfusion. Three view chest radiographs are warranted. There is no evidence of cardiac metastasis; however, some minor, heterogenous hepatic changes were noted as well as heterogenous omental changes. This is concerning for regional omental spread.

AGE

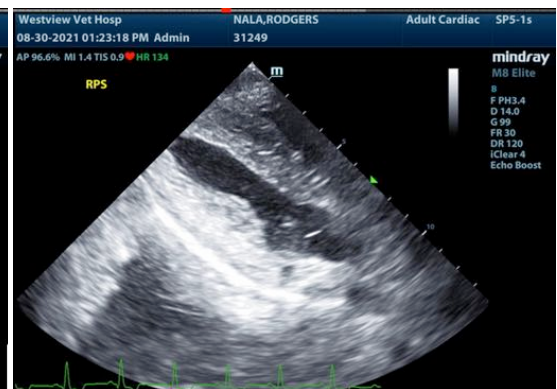
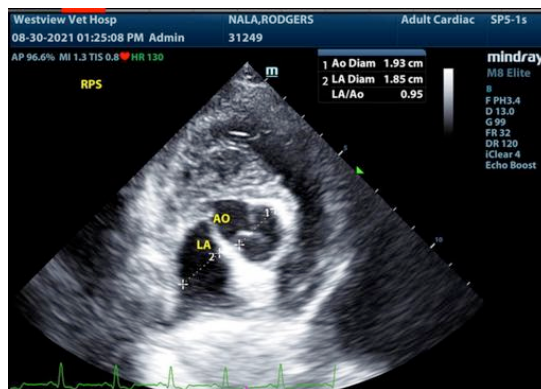
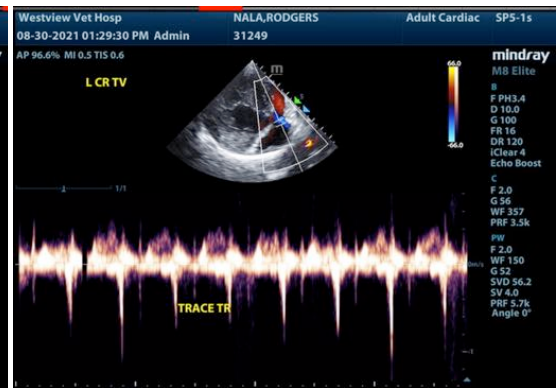
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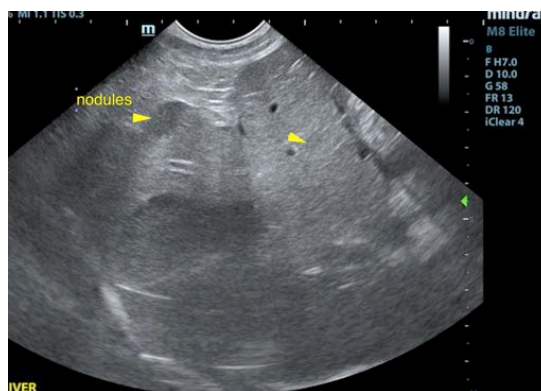
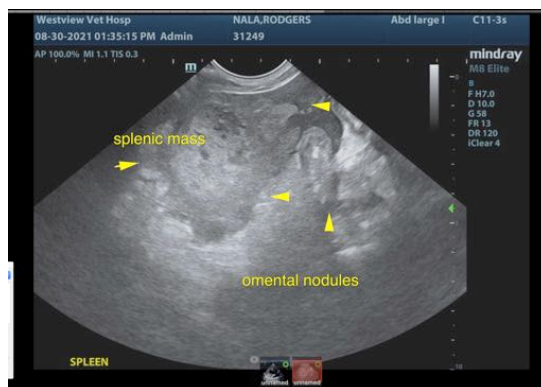
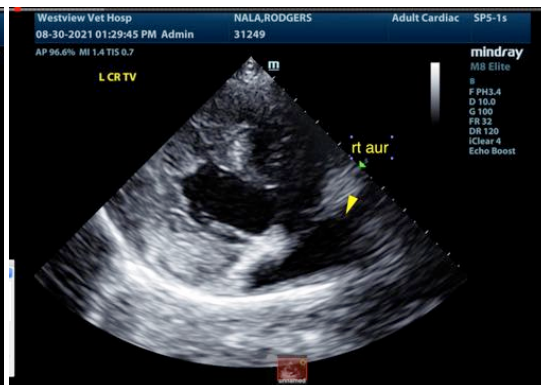
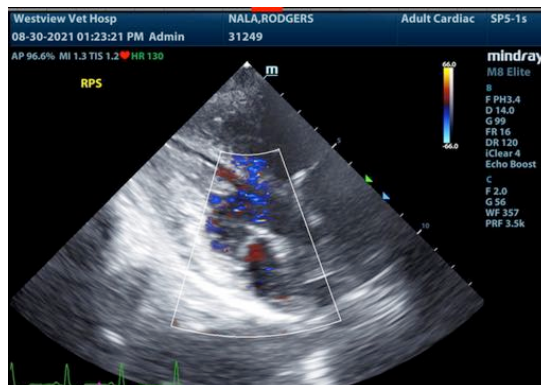
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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