



PATIENT PRESENTING CLINICAL SIGNS

PATIENT
Rosie Higdon

SPECIES
Canine

BREED
Irish Wolfhound

SEX
Female

AGE
11 years

WEIGHT
39.8 kg

History: History: Presented 3/23 for lethargy, reduced appetite, dribbling urine. Owner was concerned for dental disease. Was in heat 3 weeks ago and had unusually heavy bleeding; was seen at another veterinarian and was started on antibiotic therapy.

Abnormal PE/Chem/CBC/UA Results: Abnormal laboratory findings: CBC/Chem WNL Other diagnostics available (ie. Blood pressure, radiographs, etc): Thoracic radiographs were unremarkable, ECG shows atrial fibrillation. Started on diltiazem and pimobendan while waiting for sonogram report. Abnormal physical exam findings: BCS 4/9, irregularly irregular tachyarrhythmia

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 normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 6.7 cm. The left kidney measured 7.6 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 2.15 x 0.5 cm at the cranial pole and 0.5 cm at the caudal pole. The right adrenal gland measured 3.3 x 0.6 cm at the caudal pole and 0.56 cm at the cranial pole.

Spleen

The **spleen** was folded upon itself with no evidence of pathology.

Liver

The **liver** revealed increased portal markings. This is consistent with hepatic remodeling. The changes were fairly minor. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Stegemoller

HOSPITAL NAME

North Idaho AH

REFERRING VET

Dr. Neher

INVOICE

97775

DATE

3/24/22



PATIENT *Gastrointestinal*

Rosie Higdon 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

Irish Wolfhound

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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ULTRASONOGRAPHIC EXAMINATION OF THE HEART

AGE

11 years

The echocardiogram in this patient demonstrated enlarged **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. 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 or chamber overload. **Tricuspid** insufficiency was noted. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** 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. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window. Significant arrhythmia was noted during the exam and may be playing a role in volume overload.

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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		2.4	NM	1.8			0.2
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
CARDIAC PARAMETERS	(BPM)	VMAX (m/s)	MAX (m/s)	(kg)	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			1.0	39.8	6.15	3.5	



PATIENT

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ULTRASONOGRAPHIC FINDINGS

Mitral and tricuspid insufficiency.

Mild left atrial enlargement.

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Severe arrhythmia.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend Pimobendan at 0.3 mg/kg b.i.d. If systolic pressure is > 160 then ace inhibitor therapy is warranted. Correction of the arrhythmia is warranted when the arrhythmia is able to be somewhat controlled with medication then a recheck echocardiogram is warranted after initiating Pimobendan.

SEX

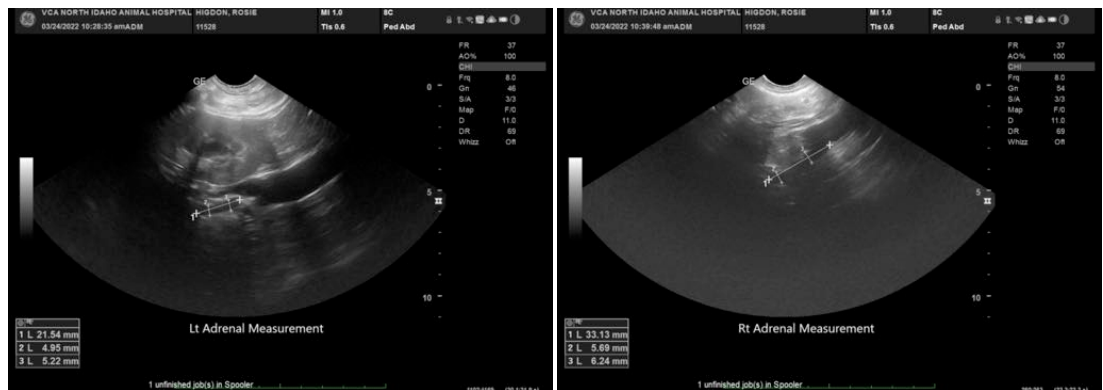
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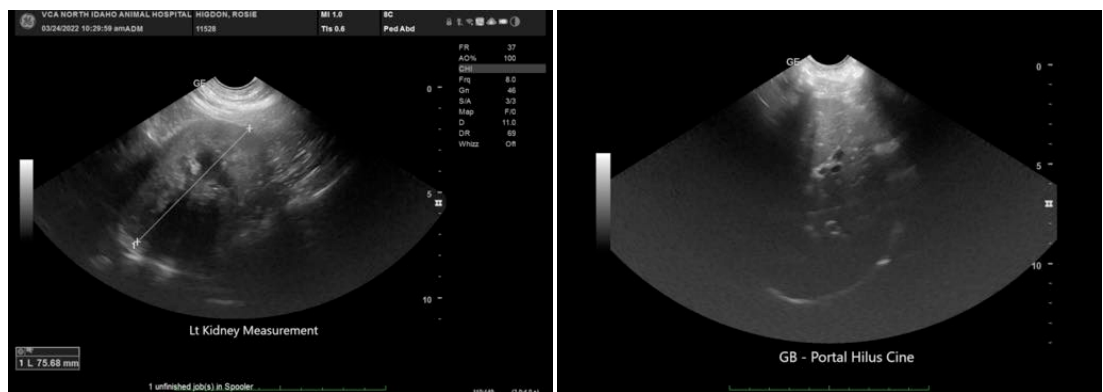
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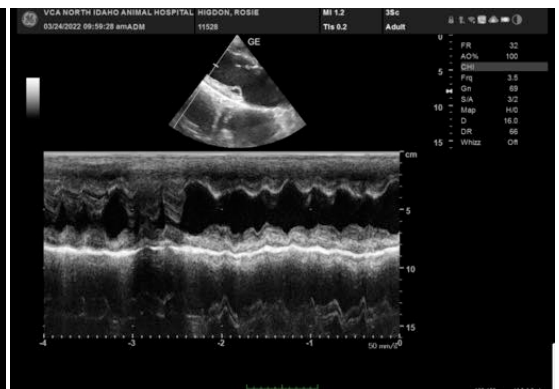
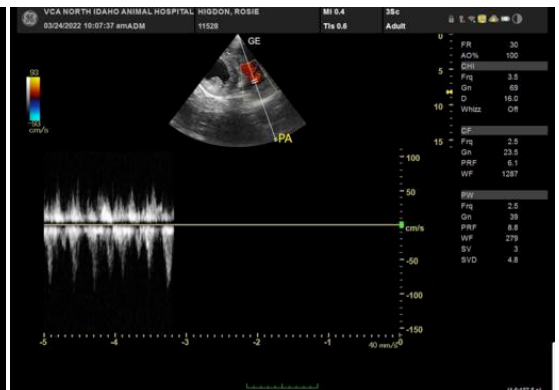
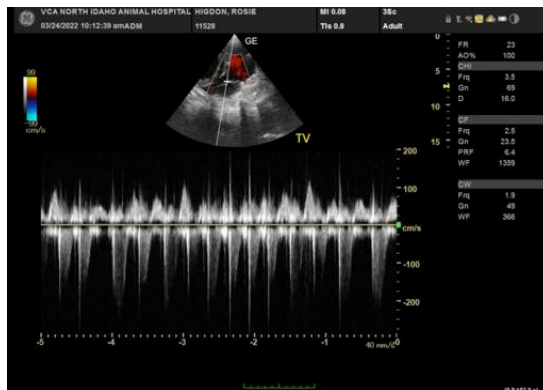
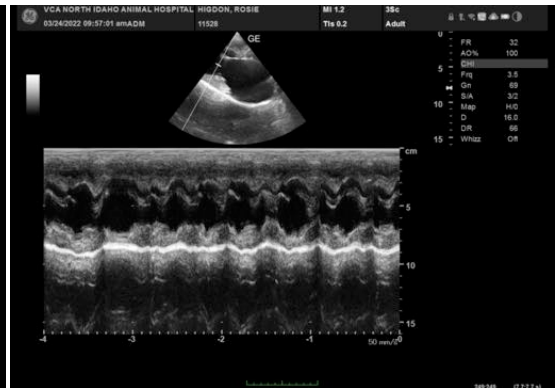
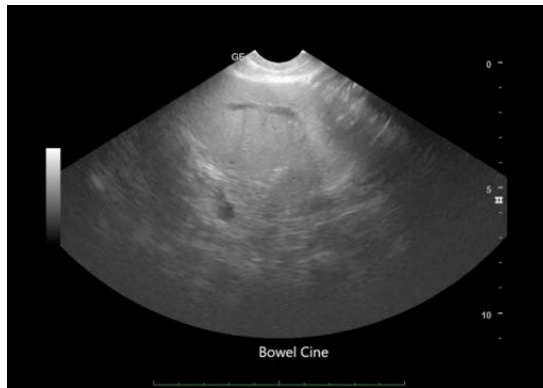
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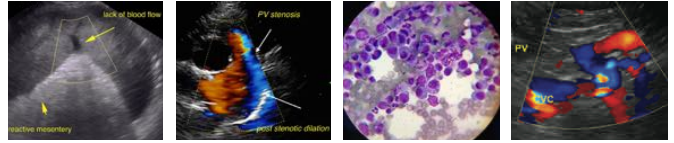
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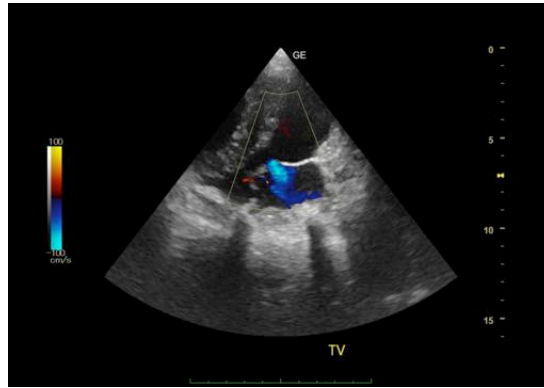
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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