



**PATIENT**

Ruger Smith

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

Male

**AGE**

7 years

**WEIGHT**

90 lbs

**PRESENTING CLINICAL SIGNS**

History: Edema, trouble getting up (Right atrial mass 9/22) Ventricular arrhythmia Current meds: Yunnan Baiyo, Sotalol, lasix over weekend for edema in back leg  
 Abnormal PE/Chem/CBC/UA Results: Amyl 1697, TT4 0.6

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. 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 auricle** in this patient revealed a 2.8 x 3.8 cm mural mass. **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). Comet tail/ B lines lung pattern was noted and may be related to alveolar disease. No pericardial or pleural effusion was noted at the time of the sonogram. Periodic arrhythmia was noted.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Valeryia Shumskaya

**HOSPITAL NAME**

Lake Hopatcong VC

**REFERRING VET**

Dr. Navarro

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base;)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT			1.3	1.4	25	49	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	BELOW	BELOW	BELOW	BELOW
PATIENT	179	1.1	1.16	90 lbs	4.76	4.34	

**INVOICE**

47810

**DATE**

6/12/23



**PATIENT**

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Ruger Smith

**Urinary System**

**SPECIES**

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.

Canine

**BREED**

The testicles were imaged and the testicles revealed no evidence of pathology.

Labrador Retriever

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.

**SEX**

The capsules were acceptably uniform without significant irregularities. The right kidney measured 6.59 cm. The left kidney measured 8.0 cm.

Male

**AGE**

**Adrenal Glands**

7 years

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 right adrenal gland measured 2.7 x 1.01 cm at the cranial pole and 0.75 cm at the caudal pole. The left adrenal gland was at the upper limits of normal measuring 1.65 x 0.89 cm at the caudal pole and 0.6 cm at the cranial pole.

**WEIGHT**

90 lbs

**INTERPRETED BY**

**Spleen**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

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.

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**Liver**

Lake Hopatcong VC

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. 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.

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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.

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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.

**BREED**

Labrador Retriever

***Free Abdomen***

Sublumbar lymph nodes was enlarged and rounded measuring 0.9 cm with hypoechoic, disrupted architecture.

**SEX**

Male

**ULTRASONOGRAPHIC FINDINGS**

Sublumbar lymphadenopathy.

**AGE**

7 years

Multiple comet tail/B lines were noted in the peripheral lung fields.

Right auricular mass. Hemangiosarcoma is likely given the position; however, round cell cannot be reduced out.

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90 lbs

Minor sublumbar lymphadenopathy, may be accessible under sedation for ultrasound-guided FNA. However monitor would be ideal as paroxysmal arrhythmia may be playing a role in the history

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUS

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Chest and pelvic CT would be ideal to assess of comorbidities and for further definition.

**IMAGING PERFORMED BY**

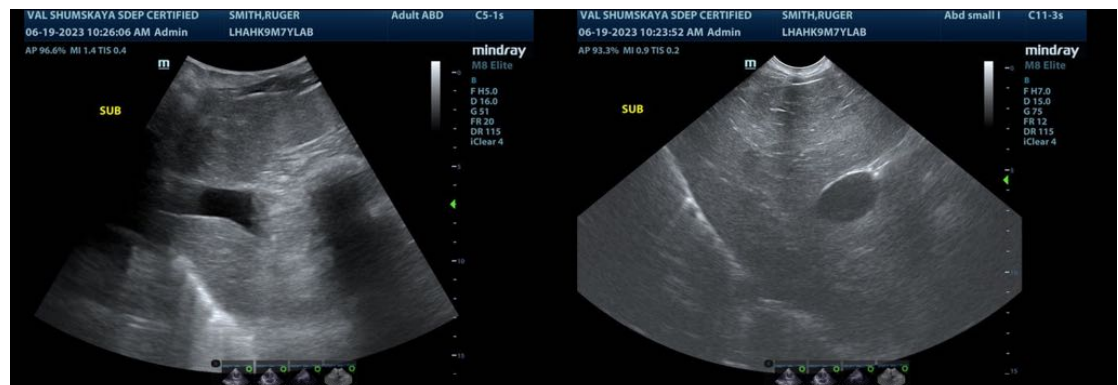
Valeryia Shumskaya

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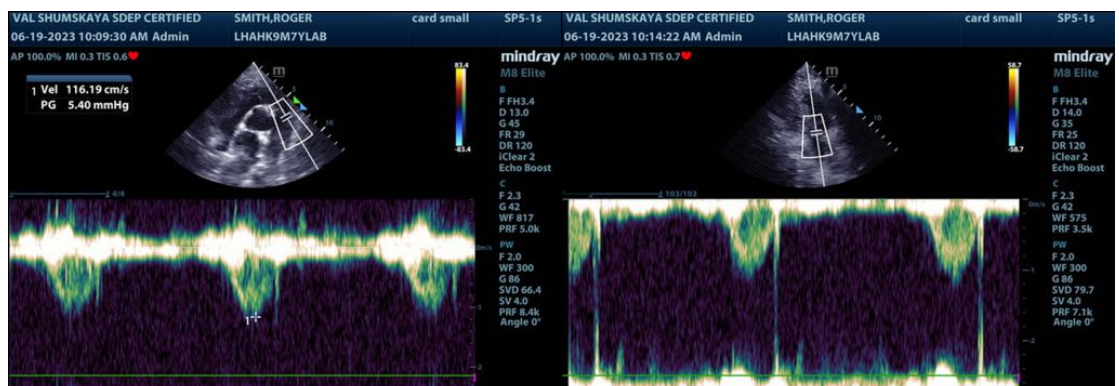
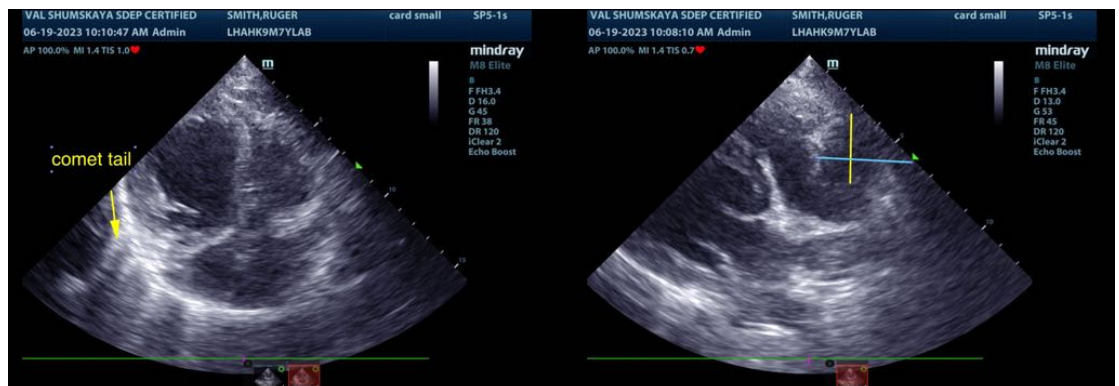
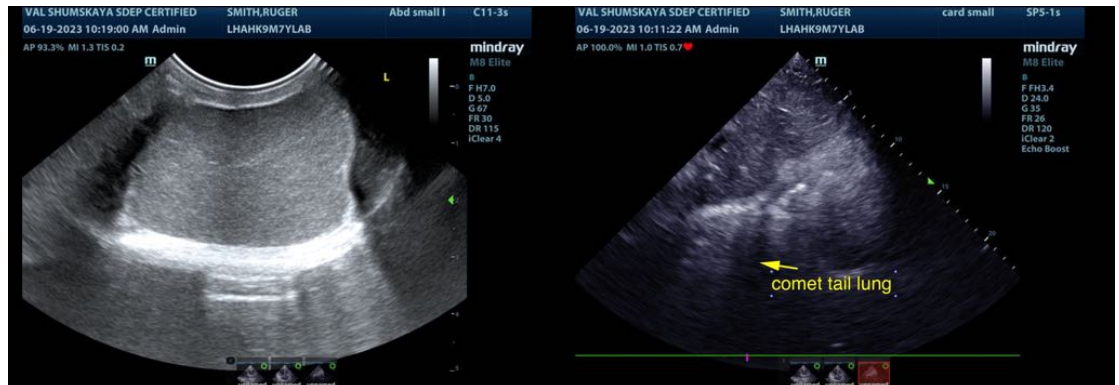
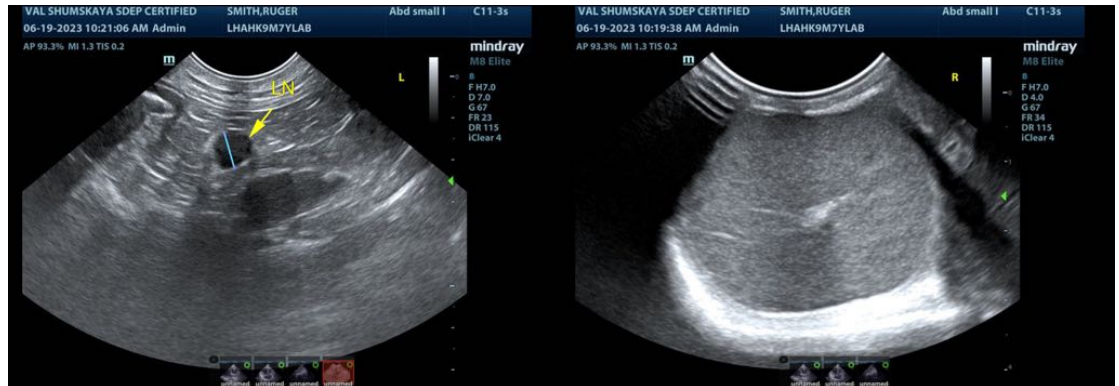
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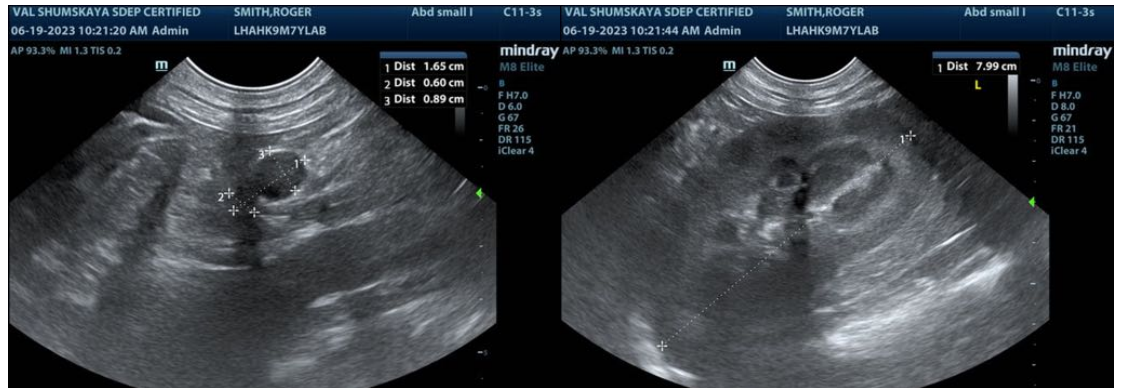
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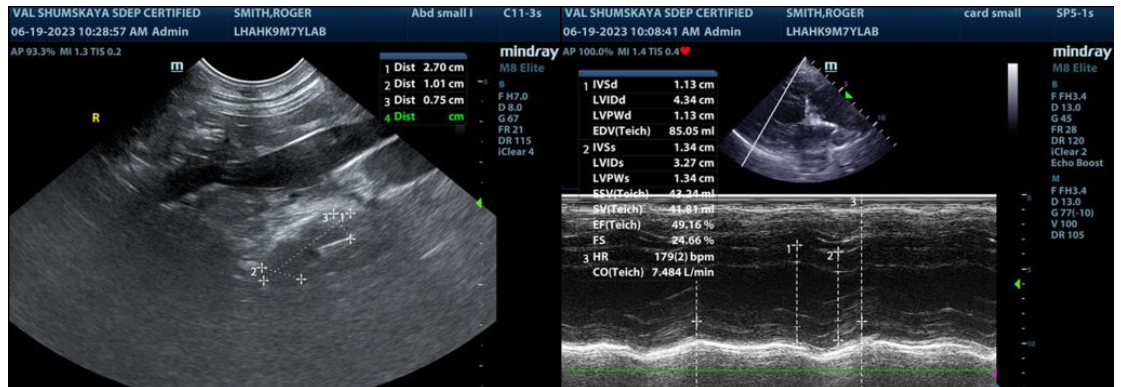
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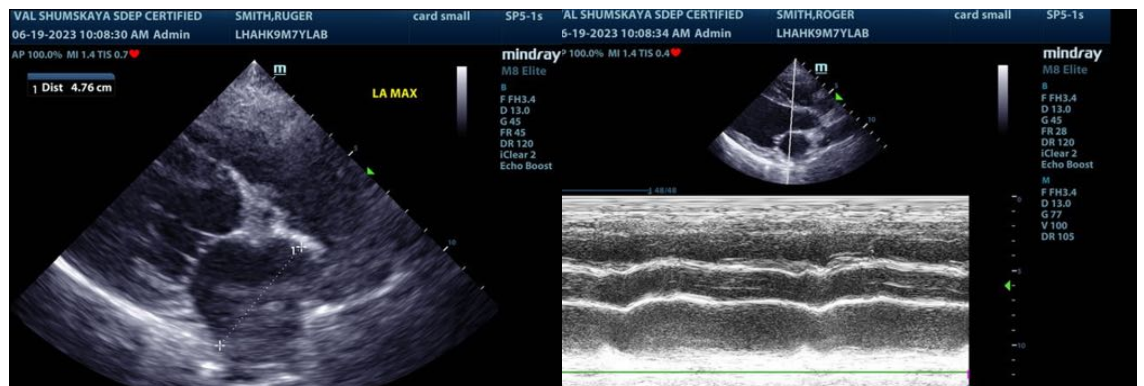
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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