



**PATIENT PRESENTING CLINICAL SIGNS**

Melvin Stevens

History: Hx of very enlarged testicle and thoracic mass; abdominal mass palpated 11/13/21. not on any meds

**SPECIES**

Abnormal PE/Chem/CBC/UA Results: 9/7/21: wbc 23.5, today WBC 18.7. platelets 685. PCV 34.8%, PT 13/APTT 17.6. requests FNA of whatever will be the most diagnostic that we can do.

Canine

**BREED**

English Bulldog

**SEX**

Intact male

**AGE**

6 years

**WEIGHT**

51.3 lbs

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The echocardiogram presented a prominent **right heart** with mild **right ventricular** hypertrophy and **tricuspid** insufficiency (3.8 m/sec) which is consistent with pulmonary hypertension. The **right atrial** size was normal. The right atrial to left atrial ratio was 1.5:1. No evidence of neoplasia was noted in the right auricle, or elsewhere in the heart. The **pulmonary artery** was uniformly prominent with mildly depressed pulmonic velocity measured on PW Doppler. No overt heartworms were noted in the main or visible deep pulmonary arteries. Yet, theoretically heartworms could be present in the deep pulmonary vasculature out of visible sonographic range. More likely, however, this prominent right heart is due to excessive intra-thoracic pressures caused by chronic respiratory disease or potentially excessive intra-thoracic fat (Pickwickian syndrome). The **left heart** demonstrated a linear **ventricular septum**. Contractility was functionally adequate demonstrated by the FS% measurement. The **mitral valve** was not significantly insufficient and no significant **left atrial** dilation was noted. The **left ventricular outflow** demonstrated normal flow patterns and velocities through the aortic valve. Left cranial **mediastinum** in this patient revealed a tissue density. The exact origin cannot be ascertained as the visibility was poor given the confirmation. Arrhythmogenic activity was noted.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Diane McFadden, RVT

**HOSPITAL NAME**

Tranquility VC

**INVOICE**

93146

**DATE**

11/16/21

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	<1.6	28-40	40-100	<0.6
PATIENT			1.3	1.13	55	86	0.51
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				
PATIENT	103	1.5	1.1	51.3 lbs	3.96 max	3.81	



**PATIENT** **ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Melvin Stevens

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. A minor amount of urinary debris was noted. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

**SPECIES**

Canine

The **prostate** was uniformly enlarged with lobar swelling appeared to impinge upon the urethra and mildly deviate the descending colon. The prostatic tissue was hyperechoic containing focal areas of decreased echogenicity. These changes are suggestive of either chronic inflammatory episodes, benign cystic pathology or both. Underlying neoplasia cannot be completely ruled-out but is lower on the differential list. This presentation is most consistent with benign prostatic hyperplasia with possible active prostatitis. Neutering or off-label Finasteride (Propecia) (0.1-0.5 mg/kg Sid) treatment is indicated +/- FNA or prostatic wash cytology and culture. The testicles revealed significant nodular changes.

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English Bulldog

**SEX**

Intact male

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 left kidney measured 7.52 cm. The right kidney measured 7.5 cm.

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6 years

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51.3 lbs

**Adrenal Glands**

The right **adrenal gland** revealed a hyperechoic nodular change at the cranial pole. The right adrenal gland measured 2.65 x 0.8 cm at the caudal pole and 1.1 cm at the cranial pole.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**Spleen**

The **spleen** was hypoechoic with a mildly expansive nodule that measured 1.56 cm at the mid caudal body.

**IMAGING PERFORMED BY**

Diane McFadden, RVT

**Liver**

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. The hepatic veins were dilated this is consistent with passive congestion and emerging right-sided heart failure. 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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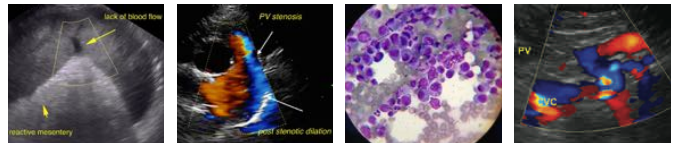
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**Gastrointestinal**

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.



**PATIENT**

**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.

**SPECIES**

Canine

**Free Abdomen**

**BREED**

English Bulldog

An iliac lymph node mass was noted in this patient and measured 4.0 x 3.0 cm. The mass was heterogenous and irregular.

**SEX**

**ULTRASONOGRAPHIC FINDINGS**

Intact male

Tricuspid insufficiency.

**AGE**

Pulmonary hypertension.

6 years

Emerging right-sided heart failure.

**WEIGHT**

Hepatic vein dilation.

51.3 lbs

BPH prostate.

Urinary debris.

Iliac lymph node mass.

**INTERPRETED BY**

Splenic nodule.

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

Testicular nodular changes.

**IMAGING PERFORMED BY**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Diane McFadden, RVT

If exercise intolerance is an issue then Sildenafil trial can be considered at 1 mg/kg b.i.d. increasing to 1.5 mg/kg b.i.d. Spironolactone at 1-2 mg/kg b.i.d. is also indicated. If hypertension is present then ace inhibitor therapy is warranted.

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Anal gland imaging and palpation is recommended. I am concerned for cranial mediastinal spread of a neoplastic process involving the splenic nodule, iliac lymph nodes and mass in the cranial mediastinum. FNA of the splenic and iliac lymph nodes are recommended. FNA of the thoracic mass can be considered; however, heavy sedation would be necessary in order to amplify the acoustic window as significant interference was present during the sonogram. The testicular nodular changes may represent the primary neoplastic event. It appears to involve the epididymis. CT of the chest can be considered for further definition of the thoracic mass.

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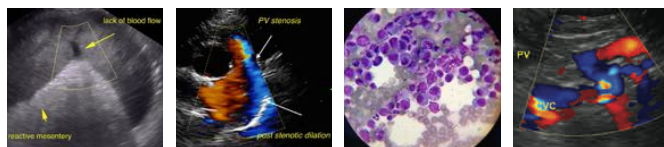
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**ABOUT SONOPATH CT SERVICES:**

**SonoPath CT Services** are offered at the [Blairstown Animal Hospital](#). Blairstown, New Jersey. More information can be found at

<https://sonopath.com/resources/sonopaths-teleconsultation-services-and-sdep-certification/sonopath-ct-services>



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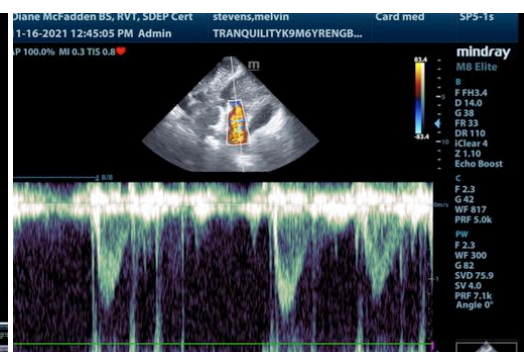
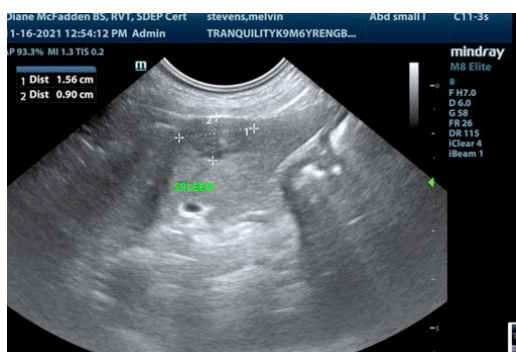
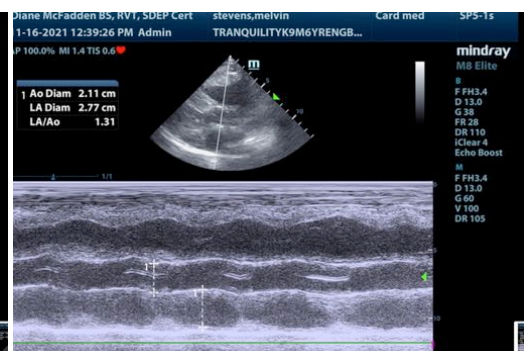
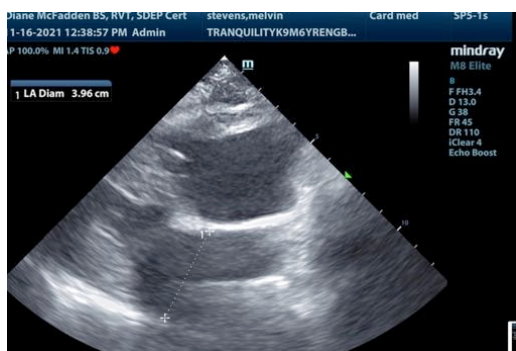
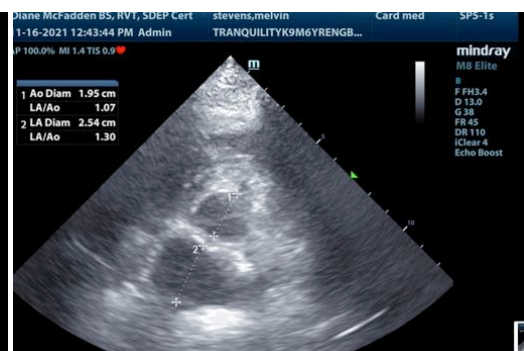
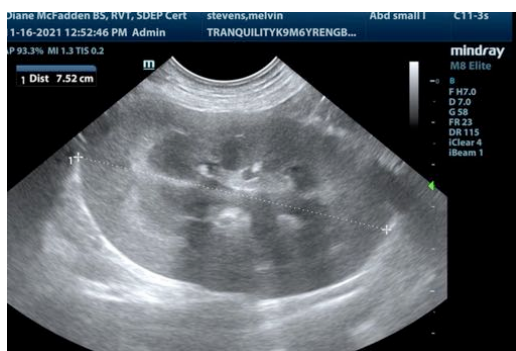
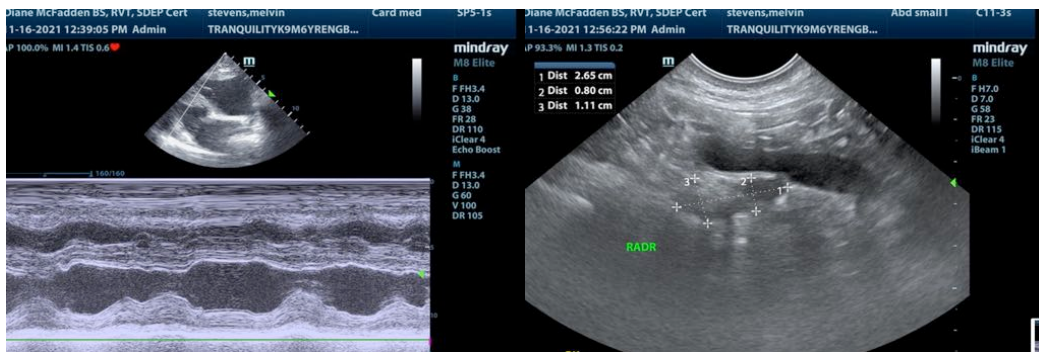
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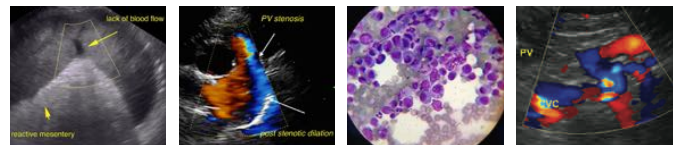
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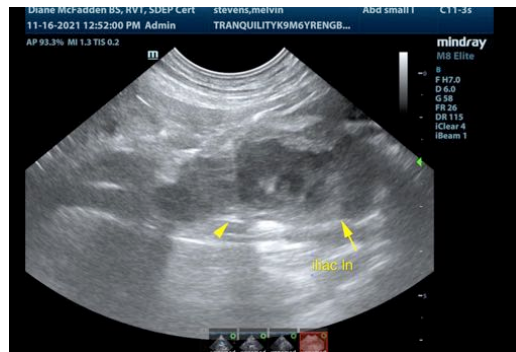
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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  
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