



PATIENT

Davis Johnson

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

14yr

WEIGHT

13.75lb

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Dr. Jocelyn Hollway

HOSPITAL NAME

Valley Green
Veterinary Hospital

REFERRING VET

Dr. Oberer-Gerber

INVOICE

23173

DATE

12/8/2025

PRESENTING CLINICAL SIGNS

Presented 12/5/25 for possible partial UO. P was dribbling urine, going in and out of litterbox. Vocalizing and seems uncomfortable. E/D/BM normally. Indoor only. Transfer to 24h facility 12/5/25 was declined. P was sent home with clavamox & buprenorphine. HX of HM grade 5/6 HX of stress cystitis -- went to Hershey ER BAR. Difficult to palpate due to obesity no obvious masses, uncomfortable with palpation of caudal ABD. Reactive to ABD palp. 5/6 systolic murmur (stable), no PMI, equally intense at all locations, synchronous pulses. Not on any heart meds currently. Slightly increased lung sounds bilaterally. U. bladder is soft. Morbidly obese. Grade 1 ddz IDX CXR/AXR 12/5/25 CONCLUSIONS: Small urinary bladder. Consider feline lower urinary tract disease for the clinical signs. Caudal abdominal peritoneal effusion or steatitis, most likely inflammatory effusion or less likely urine secondary to bladder perforation. Similar mild cardiomegaly as with underlying cardiomyopathy. No overt evidence of cardiac decompensation. Similar diffuse pulmonary changes most consistent with feline lower airway disease (e.g. feline asthma). Probable normal variation of pleural space or less likely scant pleural effusion.

Abnormal PE/Chem/CBC/UA Results: CBC- NSF Chem- BG: NSF SDMA = NSF Creat is 2.2 - IRIS CKD stg2. BUN elevated = 38 HIGH. Elytes: NSF proteins: NSF LES: NSF T4: WNL PT/PTT = NSF UA (cysto) 1.020 6.0PH otherwise quiet sediment 11/2025 proBNP - 561 HIGH FeLV/FIV/HW triple snap = (-)x3 Tachycardia noted on ECG otherwise NSF BP = 112mmHg

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	--	NM	0.66	1.3	0.67	45	77
FELINE CARDIAC PARAMETERS	LA/AO M-Mode	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	--	1.2	1.2		--	0.6	NM

Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size and structure with no evidence of "smoke" or thrombi. The cranial and caudal mitral valve leaflets appeared mildly thickened with some mild eccentric insufficiency noted on Doppler. Definitive SAM was not obvious. The left ventricle presented excessive free wall and septal thicknesses with hypertrophic thicknesses compared to normal for this species. The myocardium presented essentially normal echogenicity without immediate signs of fibrotic or ischemic disease. Contractility of the ventricular walls was considered excessive for this patient evidenced by the elevated fractional shortening measurement.



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The left ventricular outflow tract demonstrated turbulent laminar flow. Subjective assessment of the right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted. Tricuspid valvular assessment demonstrated linear morphology. The right ventricle was of normal size with normal chordae structure, myocardial echogenicity and thickness. Pulmonic tract assessment revealed normal valve structure, laminar flow, and diameter. No visible pericardial or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The mediastinum was free of masses in the visible window.

Urinary System

The urinary bladder was normal in size and tone with normal appearing wall. The trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with mild urine sediment. No evidence of inflammatory or neoplastic changes was noted. No obvious pericystic inflammation or effusion.

The kidneys were normal in size and margination with a 1 to 3 cortex medulla ratio. Hyperechoic medial cortex to corticomedullary border. Concurrent mild increased medullary echogenicity. No evidence of pyelectasia. The left kidney measured 4.1 cm in length. The right kidney measured 4.1 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The left adrenal gland was overtly normal in size, position and shape. The left adrenal gland measured 0.3 cm width. The right adrenal gland was not definitively visualized, no overt pathology in the area of the right adrenal gland.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver/Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. Normal vascular volume. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and mild non-organized debris. The common bile duct was not visualized without overt evidence of dilation or post hepatic obstructive criteria.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of mechanical/metabolic ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.



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Pancreas

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Free Abdomen

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

Increased omental fat was present.

ULTRASONOGRAPHIC FINDINGS

Primary

- Hypertrophic cardiomyopathy phenotype
- Normal LA
- Mild eccentric MR
- Normal non distended urinary bladder with mild urine sediment
- Bilateral chronic renal changes
- Mild gallbladder debris

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hypertrophic cardiomyopathy is a rule out diagnosis once the patient is deemed euthyroid and normotensive. Assessment of systemic BP for evidence of hypertension to rule out a complicating factor in conjunction with normal T4 level is suggested. The lack of LA enlargement indicates the current and future risk of complication is low. No overt indication for cardiac medication at this stage. Sonographic monitoring is required for further cardiac prognosis. Recheck echo recommended in 6 months, sooner if clinically indicated.

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Pending urinary workup, empirical therapy for idiopathic cystitis would be reasonable.



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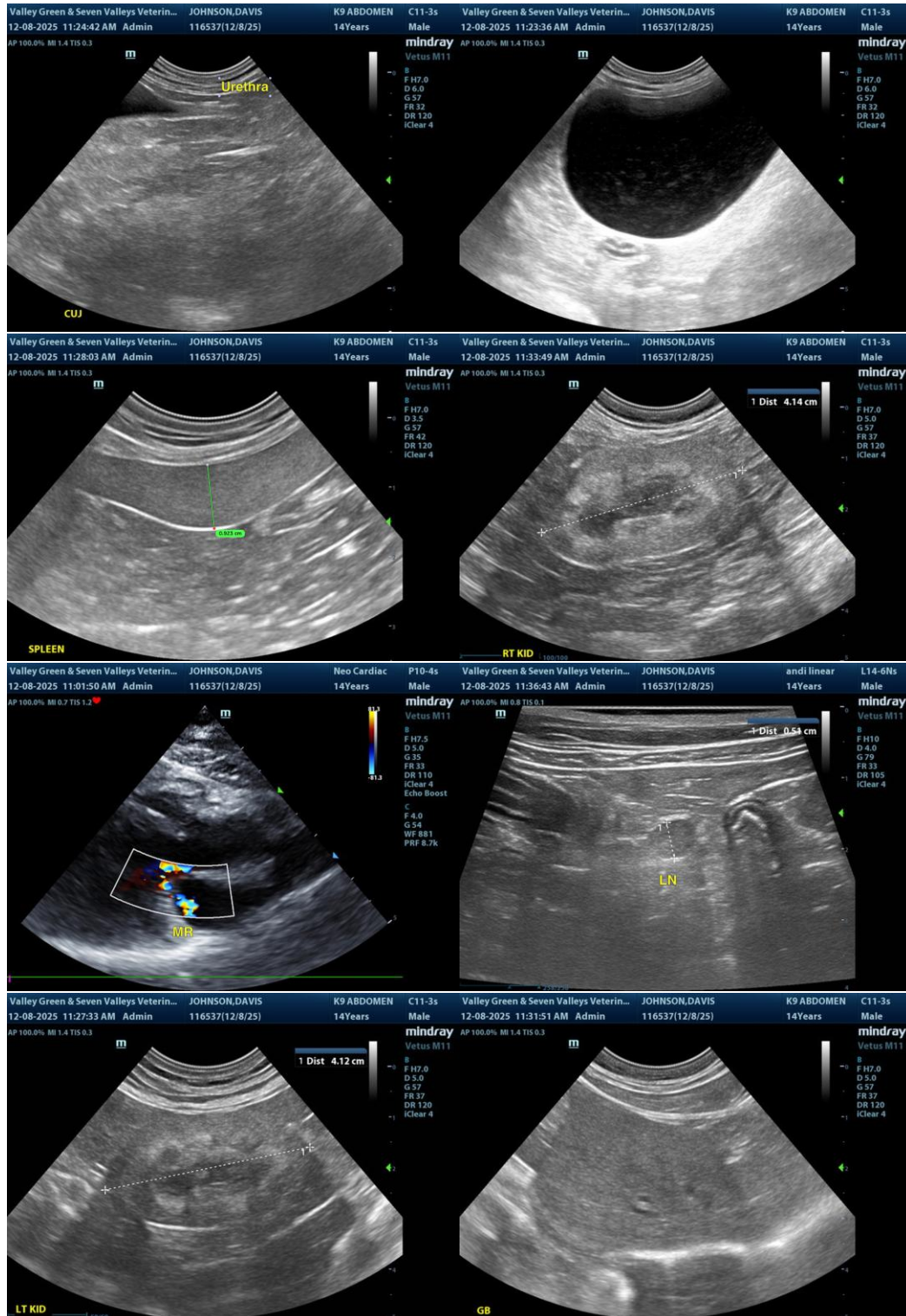
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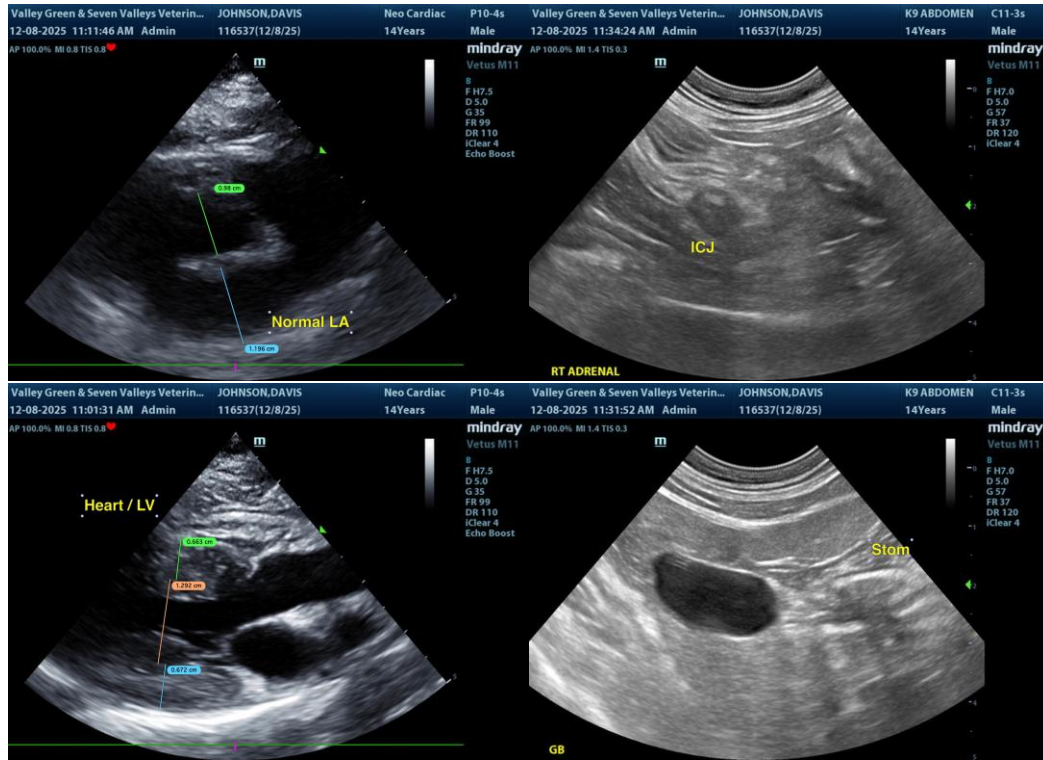
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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