



PATIENT

Sheffield Gowdy-Karabas

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

13 Years 5 Months

WEIGHT

10.5

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Harmony Animal Hospital

REFERRING VET

Dr. Gruber

INVOICE

12137

DATE

11/07/25

PRESENTING CLINICAL SIGNS

No defecation >24 hrs and appetite. Hx Hyperthyroid. Febrile 103.1, Grade II/VI pansystolic.

Current meds: Cerenia IV, Ampicillin IV, Methimazole TD(~1yr), Dex Sp, Famotidine.

Abnormal PE/Chem/CBC/UA Results: T4 Normal, HCT decreased 27%. Mild Neuterphilia 13.4k. BG 254, BUN 69, Creat 2.2, ProBNP abnormal, USG 1.024

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

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	0.65	1.9	0.68	45	78
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	NM	2.3	2.0		1.2	0.76	NM
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

Cardiac Presentation

The left ventricular wall is hypertrophied with regions of irregularity. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Papillary muscle hypertrophy with regions of remodeling. Increased left atrial dimension, no current spontaneous contrast or thrombus. Mildly thickened mitral valve leaflets without overt evidence of systolic anterior motion (SAM) of the mitral valve, with a normal measured LVOT velocity seen on color flow. Mild dynamic LVOT profile. There is mild eccentric mitral regurgitation present. Mild increased right atrial dimension. Normal right ventricle size. Normal measured RVOT velocity. Mild TR. No other obvious valvular regurgitation is present. There is scant pericardial effusion noted. No overt pleural effusion appreciated. No evidence of cardiac tumors or arrhythmia.

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Nondependent particulate mild sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.



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Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. Mild medullary mineral was present in the left kidney. A mildly expansive, thinly walled cranial cyst was present in the right kidney containing anechoic fluid with mild echogenic fluid component and mild increased perinephric/retroperitoneal tissue echogenicity. The left kidney measured 4.1 cm in length. The right kidney measured 5.4 cm in length (including right kidney cyst).

Adrenal Glands

No obvious pathology in the areas of the left and right adrenal glands.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Discrete to emerging hyperechoic nodules were present throughout the cranial to caudal 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 or neoplastic changes were not noted. The hyperechoic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver

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. The hepatic and portal vasculature were subjectively normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained echogenic, mild nonshadowing ingesta without signs of obstruction to pyloric outflow.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Segmental mild intestinal ingesta was present without obstructive pattern to the level of the colon.

The visualized colon was nondistended in size with overtly normal intact visible wall containing formed fecal matter.

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No visualized significant omental lymphadenopathy or overt peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Thickened LV with myocardial remodeling/fibrosis.



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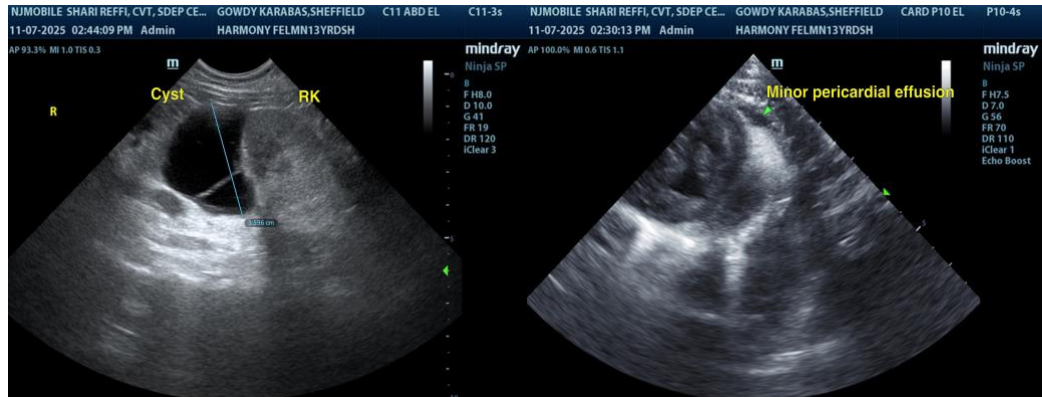
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- Mild bi-atrial enlargement.
- Scant pericardial effusion.
- Mild MR/TR.
- Sonographically normal gastrointestinal tract with mild nonshadowing gastrointestinal ingesta-most consistent with food echogenicity.
- Chronic renal changes with cranial right kidney cyst, abscess/necrosis thought less likely.
- Pancreatic remodeling.
- Mild urine sediment.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Echocardiogram is most consistent with chronic HCM phenotype given the patient's history which is a rule out diagnosis if patient is deemed euthyroid and normotensive. Regardless of classification, the degree of atrial dilation suggests emerging CHF in conjunction with mild pericardial effusion. Likewise, this patient is at increased risk for thrombotic event. Lasix 1.0 to 2.0 mg/kg BID, Clopidogrel 75 mg tab (1/4 tab SID) and off label Pimobendan 1.25 mg PO BID is recommended. Monitoring of systemic BP, renal parameters and ECG are indicated. Elective anesthesia is not advised. Sonographic monitoring is required for further prognosis with recheck suggested in 6 months or sooner if progressive clinical signs.

Gastrointestinal and renal support is indicated. The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended. A spec fPL is suggested to assess for mild pancreatitis. Monitoring of the right kidney cyst for progression is recommended.





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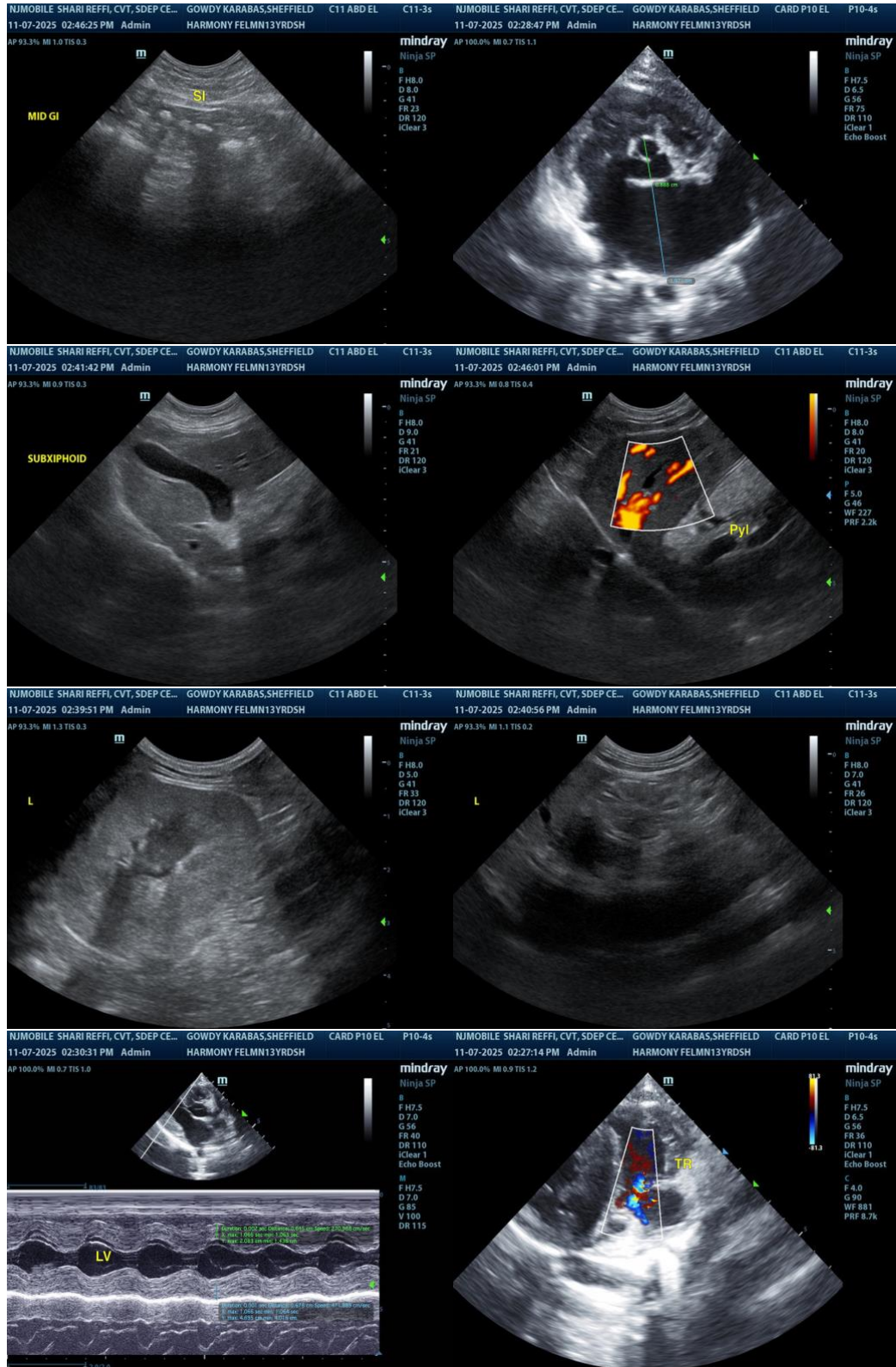
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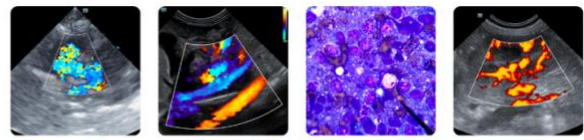
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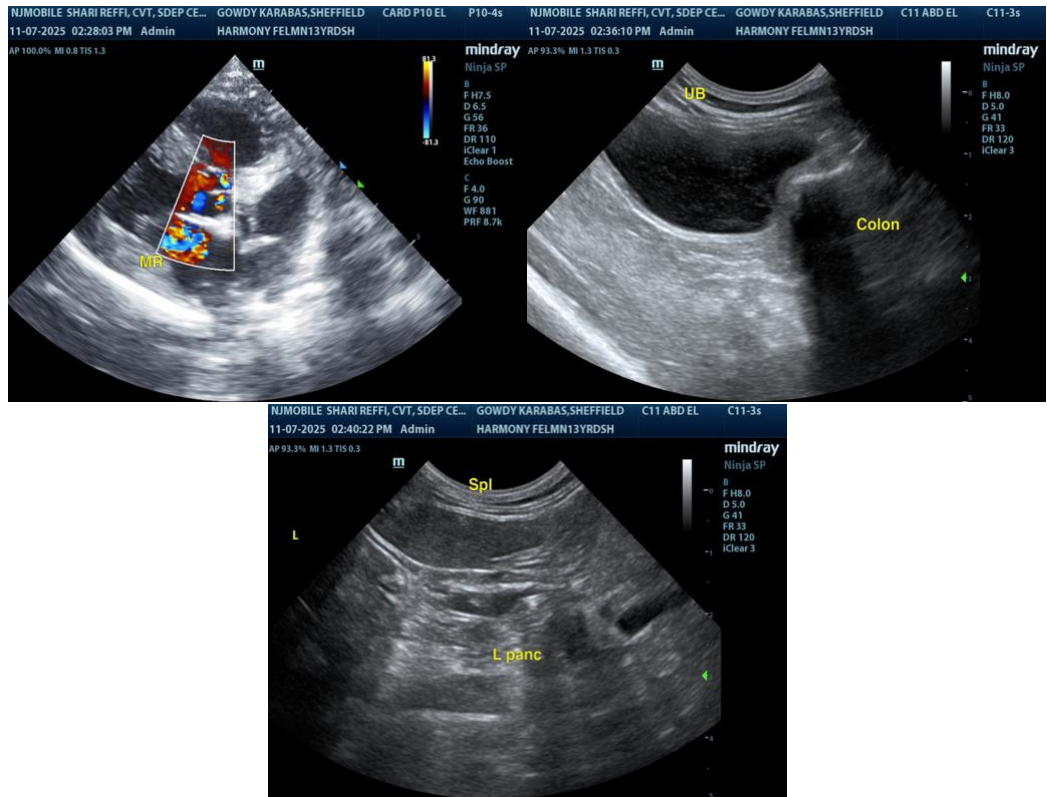
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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