PATIENT

Maruska Krashogorov

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

4 Years 2 Months

WEIGHT

7.7 lbs

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY

Kerri Becker

HOSPITAL NAME

Animal Paradise Hospital

REFERRING VET

Dr. Elshafie

INVOICE

72389

DATE

12/5/25

PRESENTING CLINICAL SIGNS

Lethargy and anorexia r/o causes as renal vs. hepatic r/o cardiac dz. xray report cardiomyopathy such as hcm. anemia mild and causes as infection autoimmune toxicity vs. other.

Abnormal PE/Chem/CBC/UA Results: HCT-24 HCG-7.9 UA bili-1+ blood trace, struvites 2-3 usg-1.064

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	3.5	199	0.6	1.5	0.65	60	NM
FELINE CARDIAC PARAMETERS	**LA/AO** (m-mode long axis)	**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	1.1	1.2	NM		0.7	0.7	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							

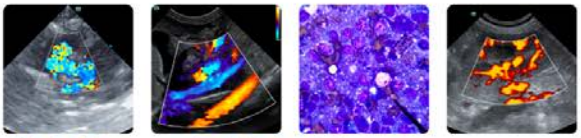
Cardiac Presentation

The **left atrium** is of normal size with no evidence of spontaneous echocardiographic contrast or thrombus formation. The **left ventricle** is normal in diameter with borderline increase in both septal and free wall thickness in diastole, and demonstrates good systolic function. The **right atrium** is subjectively of normal size and **right ventricle** dimensions and systolic function are subjectively normal. No vegetative lesions were seen. The **mitral, tricuspid, aortic** and **pulmonary valves** all exhibit normal appearance and function. The **main pulmonary artery** appears normal. There is no evidence of pulmonary hypertension. There is no evidence of pericardial or pleural effusion, and no masses are seen.

Urinary System

The urinary bladder is moderately distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra (visible to 2.0 cm) are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted.

The kidneys are of normal size and shape and exhibit appropriate corticomedullary differentiation with a normal 1:3 cortex to medulla ratio. There is no evidence of nephrolithiasis, mineralization, pyelectasia, cystic change or hydronephrosis. The proximal ureter is not visible (normal). The kidneys meaured 3.5 cm each.



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Adrenal Glands

The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. Left measured 4.1 mm. Right measured 3.3 mm.

Spleen

The spleen is of appropriate size (7.2 mm) and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal. Thickness at the splenic hilus is normal.

Liver

The liver is of appropriate size and shape, with sharp borders and a mildly coarse parenchymal echotexture that is hypoechoic to the spleen. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is moderately distended with anechoic contents and a small amount of freely-moveable echogenic sludge. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible.

Gastrointestinal

The stomach is empty. The gastric wall is normal with normal deviations due to rugal folds, and exhibits appropriate wall layering. The pylorus is of normal appearance.

The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. Intestinal motility appears normal.

The visible portions of the colon are of normal thickness (1.8 mm) with intact wall layering. The ileocecal junction is not seen.

Pancreas

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

PRIMARY FINDINGS

- Borderline Hypertrophic Cardiomyopathy (HCM) Phenotype
- Small amount of gallbladder sludge, which may be incidental, but is sometimes associated with cholecystitis in a cat.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- The patient has left ventricular wall measurements that are at the upper end of normal thickness – this may be within normal limits for this patient, but may also represent mild hypertrophic cardiomyopathy (HCM).
- If not already performed, a blood pressure measurement should be checked, as systemic hypertension can cause a reversible HCM phenotype.
- There is no cardiac medication warratnted at this time, and given the mild degree of change, it is unlikely that cardiac disease is contributing to the patient's symptoms.
- A recheck echocardiogram in 12 months is recommended. The client should monitor for clinical signs such as respiratory distress or signs of an aortic thromembolism, which would warrant emergent care, however at this time the patient is at low risk for any cardiac complications.
- Serial monitoring with proBNP may help provide evidence of disease progression in the absence of echocardiogram, and if there is significant progression of proBNP levels, then a recheck echocardiogram would be indicated.
- If anesthesia is needed, then the following recommendations would apply:

  1. Avoid drugs that may cause tachycardia, such as ketamine, xylazine, atropine and glycopyrrolate. Atropine or glycopyrrolate can be used if the HR falls below 130 and blood pressure is low during the procedure.
  2. Pre-medicate with an opiate, and if needed a benzodiazapene. Oral gabapentin 2 hours prior to the procedure can also help lessen anesthetic needs.
  3. Induction with propofol or alfaxalone
  4. Maintenance anesthesia on isoflurane or sevoflurane
  5. The safety of dexmedetomidine in cats with HCM is debated, but a single dose of 3-5ug/kg IV is likely safe, if needed.
  6. IV fluids should be used at modest doses, starting at 2ml/kg/hr.
  7. Continuous monitoring of ECG, pulse ox and blood pressure is recommended.

There is no definitive explanation for the reported lethargy, inappetence, and anemia. The presence of gallbladder sludge could indicate cholecystitis. However, in the absence of a thickened gallbladder wall nor elevations in liver blood values, this is deemed less likely. Additional recommendations include:

- Testing for infectious disease, including hemotropic mycoplasmas and FeLV / FIV
- CBC with pathologist review to screen for neoplastic cells and infectious agents.
- A thorough oral cavity exam to rule out dental pain
- A trial with an antacid and anti-emetic

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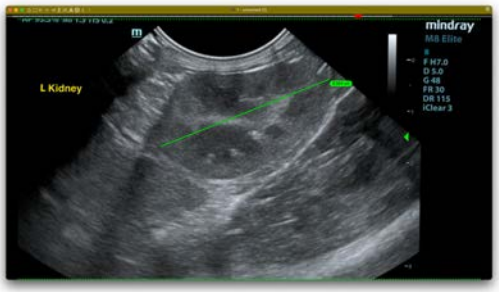
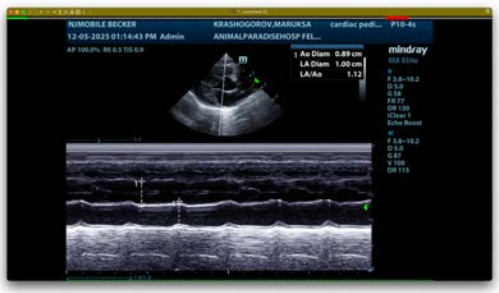
- An appetite stimulant such as mirtazapine, cyproheptadine or capromorelin, until a definitive cause can be found.





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.

Tam Mengine, DVM, DABVP (canine/feline practice) info@SonoPath.com