PATIENT

Isaac Kochanski

SPECIES

Canine

BREED

Chinese Crested

SEX

Neutered male

AGE

13 years

WEIGHT

18.5 lbs

INTERPRETED BY

Eric Lindquist, DMV, DABVP (CFM), Cert. IVUSS, CEO of SonoPath.com

IMAGING PERFORMED BY

Vincent Ravancho

HOSPITAL NAME

Animal Paradise Hospital

REFERRING VET

Dr. Bravo

INVOICE

69303

DATE

12/3/25

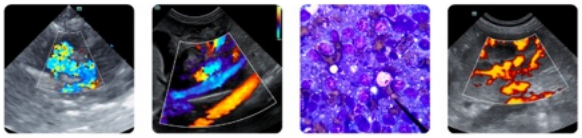
PRESENTING CLINICAL SIGNS

History: Investigate elevated liver values and cardiomegaly. Clinical findings: mild left sided cardiomegaly without evidence of decompensation. Current medications: Vetmedin 1.25mg - 1 tab BID, Lasix 12.5mg - 1/2 tab SID
Abnormal PE/Chem/CBC/UA Results: From 11/30/25 - ALP 633, ALT 173, AMY 1531, BUN 101, CRE 2.7

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated enlarged **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. The **left ventricle** presented normal 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 atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** insufficiency was noted. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO	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	7.0	-	2.08	2.2	39	71	0.2
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	115	2.26	1.0	18.5 lbs	4.06	3.18	



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ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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.

The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. Microcystic cortical changes and slight pyelectasia was noted in the kidneys. The left kidney measured 5.35 cm. The right kidney measured 5.66 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having largely normal shape, size, position and acceptable echogenicity for this age group and breed. Some heterogeneity was noted within the adrenal parenchyma without concerning capsular distortion. These changes are likely age related but should be monitored by sonogram should the patient be suspected of having adrenal disease. The right adrenal gland measured 2.21 x 0.85 cm at the cranial pole and 0.55 cm at the caudal pole. The left adrenal gland measured 1.8 x 0.77 cm at the cranial pole and 0.85 cm at the caudal pole.

Spleen

The **spleen** in this patient was mildly enlarged with uniform parenchyma and was folded upon itself cranially. This is a positional variant and is not pathological. There was no evidence of significant disease.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Multi-focal, isoechoic nodular changes were noted with a subtle, expansive, mildly disruptive mass that measured 5.2 cm in the right cranial liver. This may be benign. The gallbladder and common bile duct were unremarkable.

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. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

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Pancreas

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.

ULTRASONOGRAPHIC FINDINGS

Stage B2+ valvular disease.

Tricuspid insufficiency

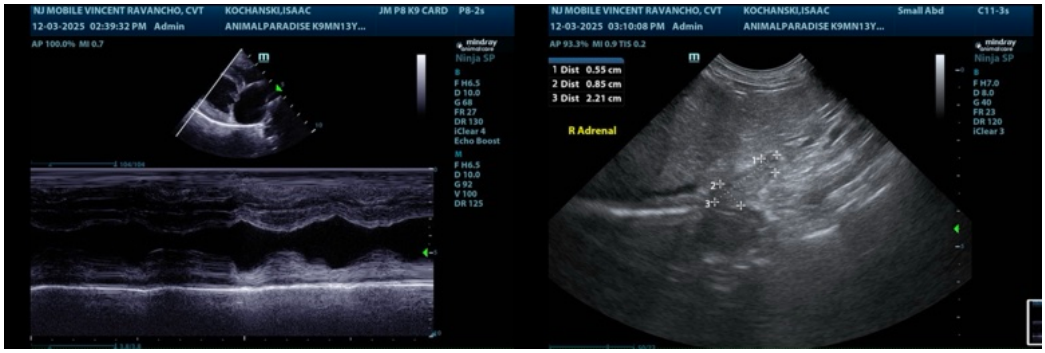
Moderate degenerative renal disease.

Liver mass and nodular changes, likely hepatoma, benign hepatoma or possible pronounced nodular hyperplasia. Emerging carcinoma is possible.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

In addition to the current medications of Vetmedin and Lasix, I recommend adding ace inhibitor at 0.5 mg/kg s.i.d. progressing to b.i.d. and adding Spironolactone at 1-2 mg/kg s.i.d. Recheck echocardiogram is recommended in 1-3 months or earlier if clinical signs are present. I am concerned about emerging left-sided heart failure in this patient. If any pulmonary edema is present then Lasix can be added to the suggested protocol. Blood pressure measurements are indicated if not already performed.

A recheck sonogram is recommended in 6-8 weeks to assess if any growth of the hepatic pathology is growing. FNA would be appropriate of the general liver and right cranial liver mass, SDEP 12 approach.



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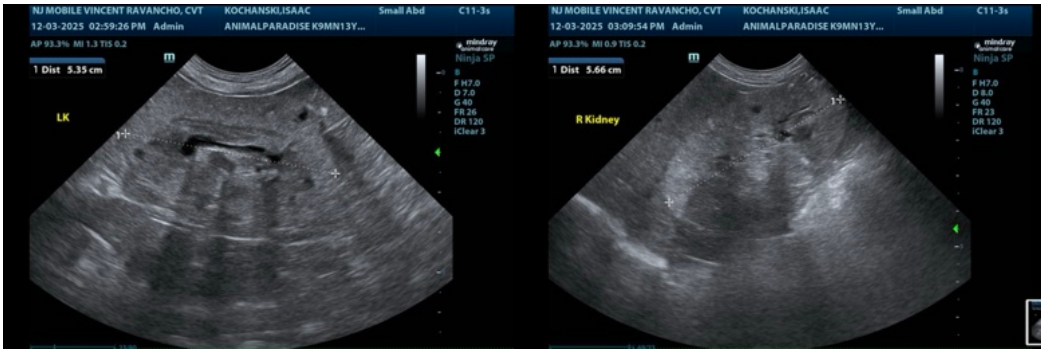

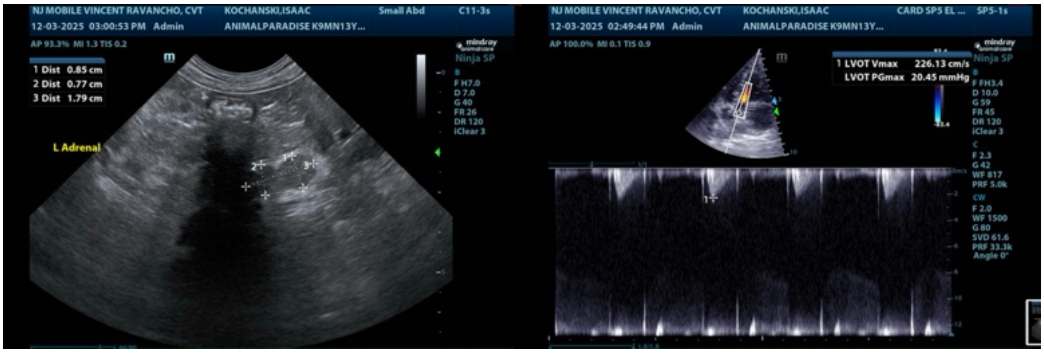

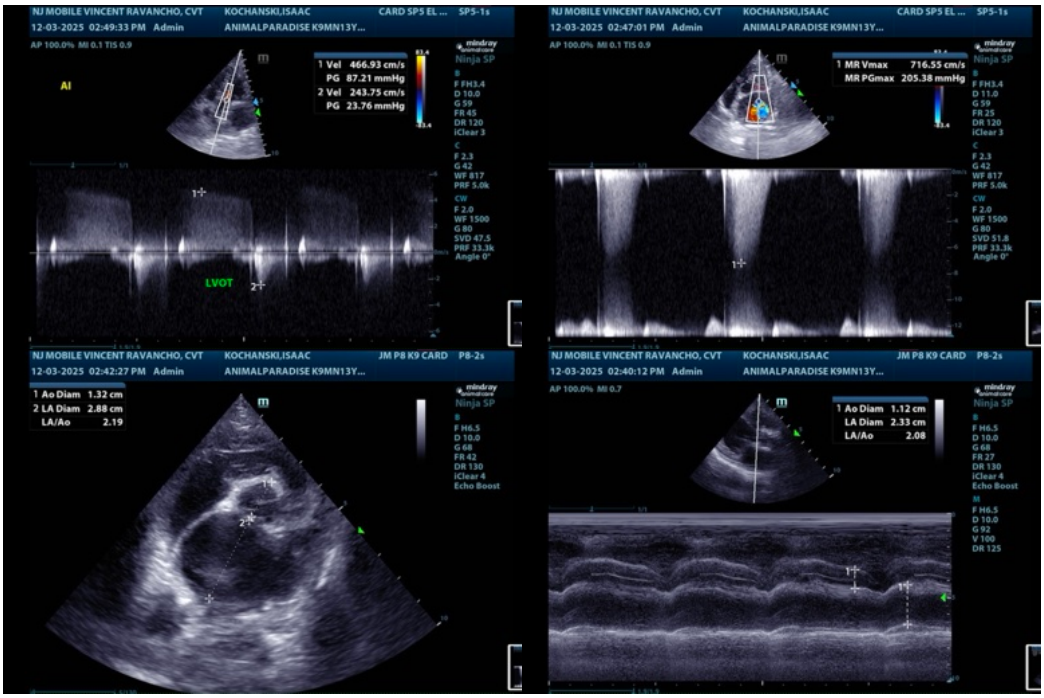

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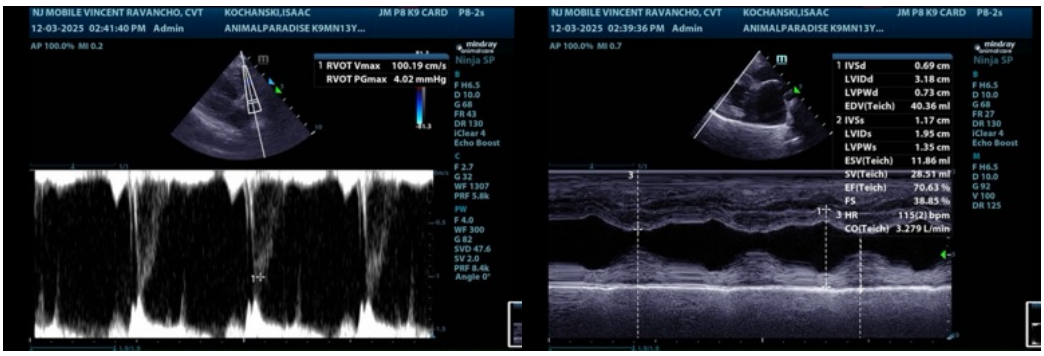
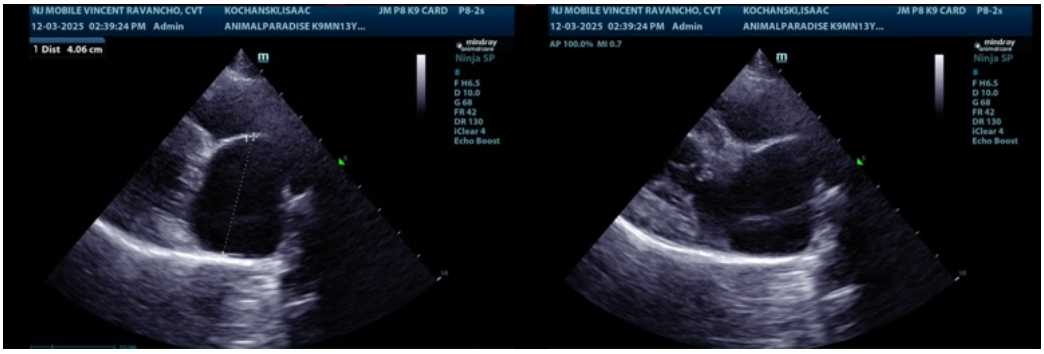
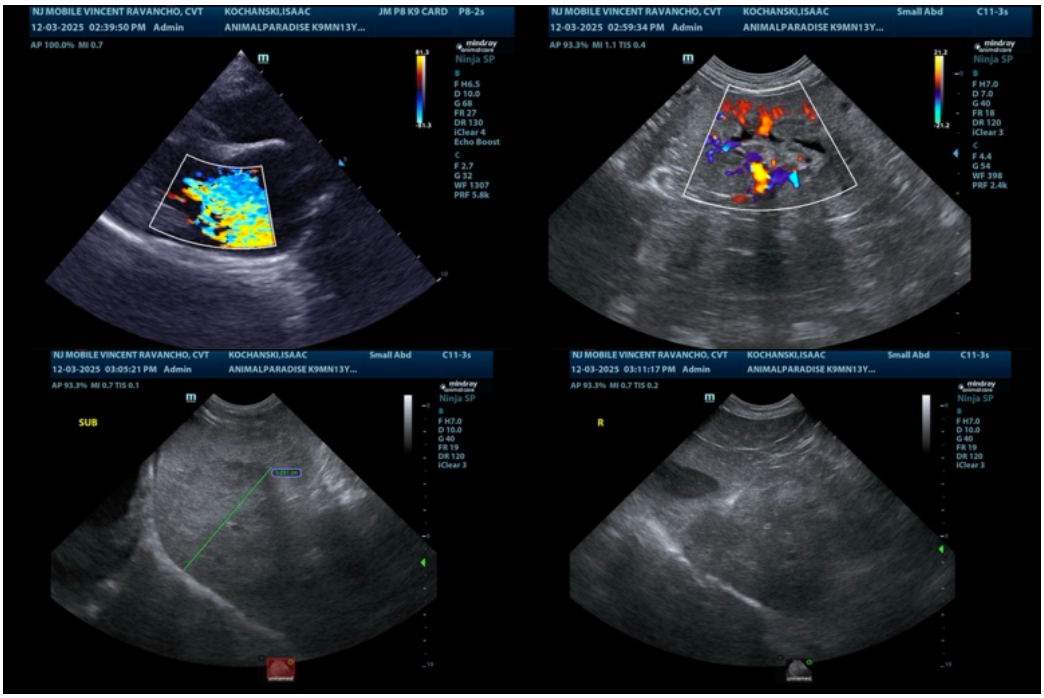
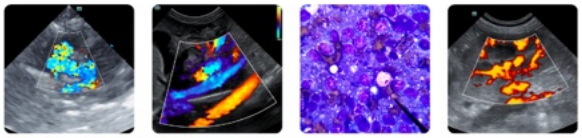






The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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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