



PATIENT

Macallister Mirabella

PRESENTING CLINICAL SIGNS

urinating in house more frequently, PU/PD Hx of SIBO and cardiovascular dz pre u/s 7/27 echo showed stable valvular dz

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

BREED

Lhasa Apso

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			1.15	1.57	45		NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	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		1.4	0.6		3.01	2.6	

SEX

Neutered Male

AGE

9 Years

WEIGHT

17.9 Pounds

Cardiac Presentation

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

The echocardiogram in this patient demonstrated normal **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 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** valvular assessment demonstrated adequate linear morphology. 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.

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway AH

REFERRING VET

Dr. Maniar

Periodic arrhythmia noted in this patient.

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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 were noted. Ureteral papillae were normal.

DATE

12/14/22



PATIENT	The prostate was enlarged and irregular with cystic changes, measuring approximately 2.5 cm. The patient is reported to be neutered. However, if not neutered, this is consistent with BPH. If neutered, then carcinoma is possible.
Macallister Mirabella	
SPECIES	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. The capsules were acceptably uniform without significant irregularities. The right kidney measured 4.77 cm. The left kidney measured 4.8 cm with pyelectasia and corticomedullary mineralization noted.
Canine	
BREED	Adrenal Glands
Lhasa Apso	The left adrenal gland was enlarged, hypoechoic, and undifferentiated, measuring 3.0 cm x 1.57 cm at the caudal pole and 1.48 cm at the cranial pole. Capsular expansion noted without capsular escape.
SEX	The right adrenal gland measured 0.60 cm at the cranial pole and 0.40 cm at the caudal pole.
Neutered Male	Spleen
AGE	The spleen presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.
9 Years	
WEIGHT	Liver
17.9 Pounds	The liver images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. 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.
INTERPRETED BY	Gastrointestinal
Eric Lindquist, DMV	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.
DABVP, Cert. IVUSS	
IMAGING PERFORMED BY	Pancreas
Jenn	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.
HOSPITAL NAME	
Rockaway AH	
REFERRING VET	ULTRASONOGRAPHIC FINDINGS
Dr. Maniar	<ul style="list-style-type: none"> • Stage B1 valvular disease with arrhythmia, compensated • Left adrenal mass – strong suspicion for pheochromocytoma versus carcinoma, appears resectable. • Enlarged prostate – If truly neutered, then carcinoma is a strong potential.
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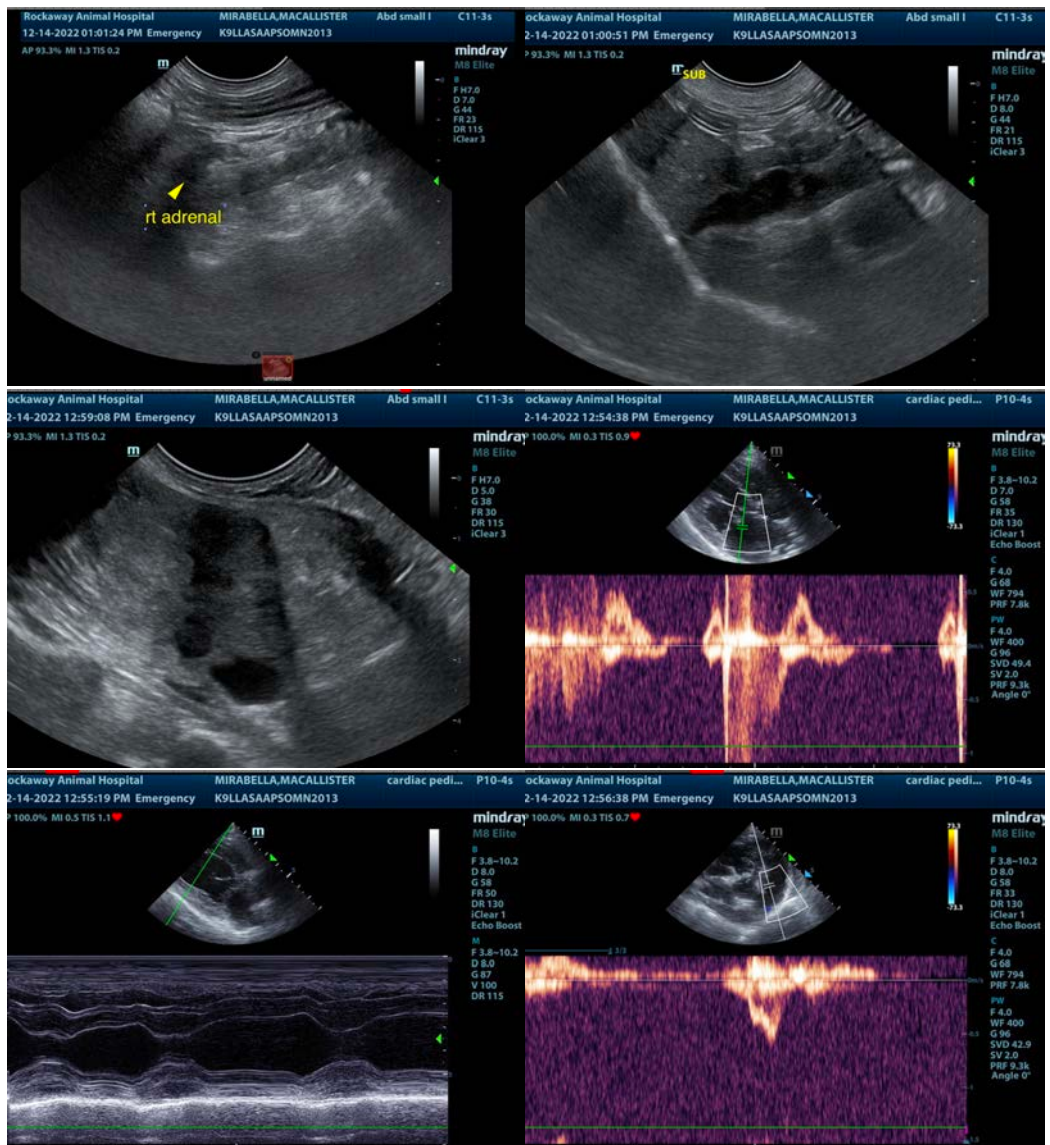
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflor maintenance or similar protocol if anesthesia is desired. Blood pressure recommended if not already performed and target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 6 months, earlier if murmur grade increases or clinical signs initiate.

CT evaluation ideal for surgical planning regarding the left adrenal mass. However, direct left adrenalectomy indicated. FNA of the prostate recommended for further definition. No evidence of cryptorchid noted. Serial blood pressures and urine catecholamine indicated, followed by left adrenalectomy, depending upon prostatic findings.





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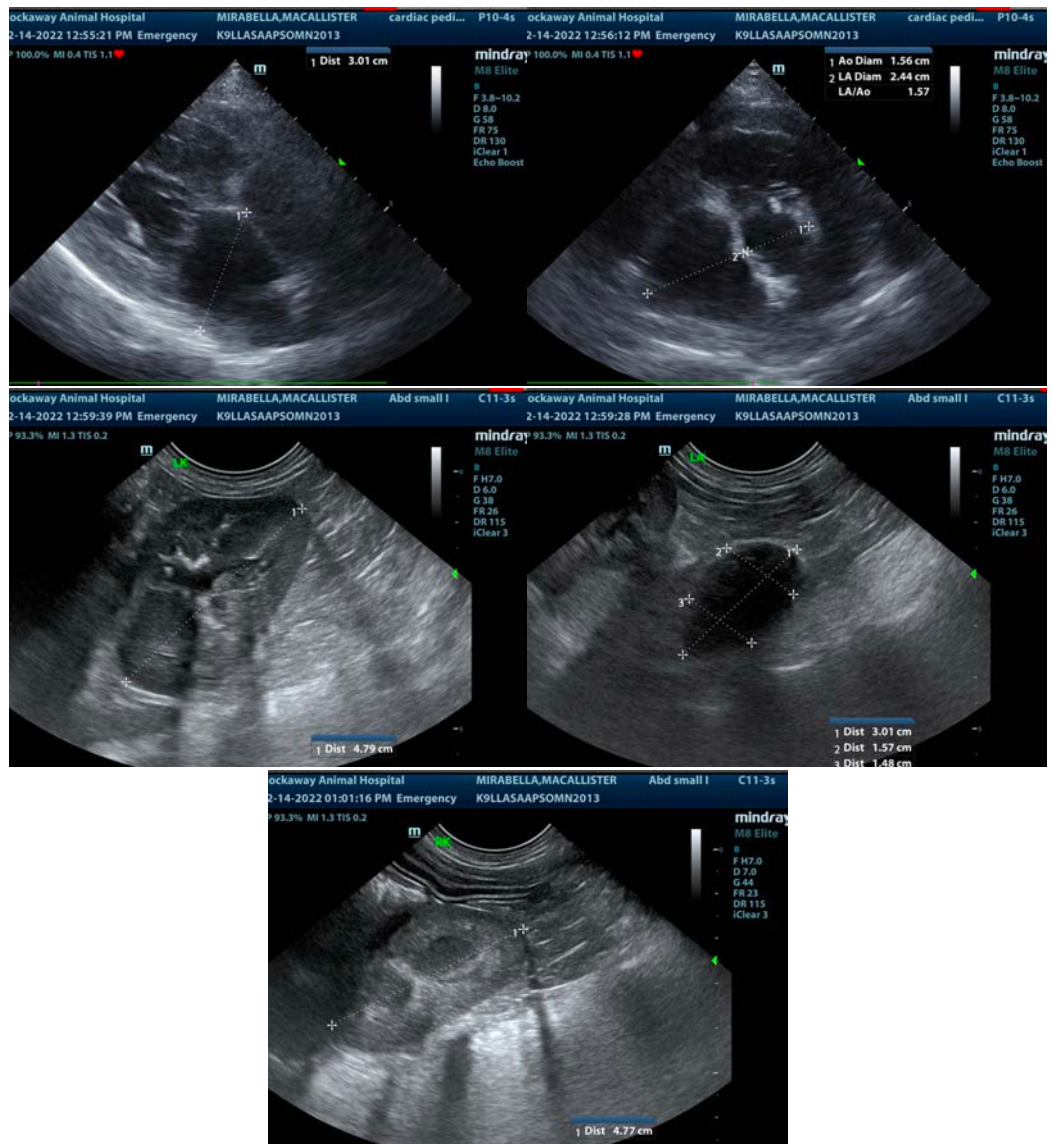
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

info@SonoPath.com