



PATIENT PRESENTING CLINICAL SIGNS

Gigo Manrique increased HR HM 4/6 perineal hernia owner reports coughing at home thru out the day and not eating well Current meds Pimo Convenia
 Abnormal PE/Chem/CBC/UA Results: anemia increased WBC's

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

| BREED | CANINE CARDIAC PARAMETERS | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO (Boon method) | LA/AO (Heart Base; Swe) | FS (%) | EF (%) | EPSS (cm) |
|------------|---------------------------|---------------|---------------|---------------------|-------------------------|---------------------------------|--|--|
| Chihuahua | | | | | | | | |
| SEX | NORMAL PARAMETER | 4.5-5.5 | <2.7 | 1.3 | <1.6 | 28-40 | 40-100 | <0.6 |
| Male | PATIENT | 6.55 | 3.0 | 1.3 | 2.12 | 56 | 88 | 0.2 |
| AGE | 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) |
| 10 Years | | | | | | | | |
| WEIGHT | NORMAL PARAMETER | 50-100 | 0.7-1.7 | 0.7-1.6 | BELOW | BELOW | BELOW | BELOW |
| 4.9 Pounds | PATIENT | 98 | 1.0 | 0.7 | | 3.1 | 2.25 | |

INTERPRETED BY

Eric Lindquist, DMV
 DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway AH

REFERRING VET

Dr. Bednar

INVOICE

38123

DATE

6/1/22

Cardiac Presentation

The echocardiogram for this patient presented excessive **left atrial size** expressed both in the LA/AO and LA max measurements Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. Prolapse of the anterior mitral valve leaflet noted. 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. Moderate **tricuspid** insufficiency 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.

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.



PATIENT

Gigo Manrique

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex. Mineralization noted in both kidneys. The right kidney measured 3.55 cm. The left kidney measured 2.82 cm and revealed cortical collapse, infarcts, and pyelectasia.

SPECIES

Canine

Adrenal Glands

BREED

Chihuahua

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 1.11 cm x 0.52 cm at the caudal pole and 0.45 cm at the cranial pole.

SEX

Male

Spleen

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.

AGE

10 Years

Liver

WEIGHT

4.9 Pounds

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Hepatic vein dilation noted, consistent with passive 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

Eric Lindquist, DMV

Gastrointestinal

DABVP, Cert. IVUSS

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.

IMAGING PERFORMED BY

Jenn

Pancreas

HOSPITAL NAME

Rockaway AH

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.

REFERRING VET

Dr. Bednar

ULTRASONOGRAPHIC FINDINGS

- Mitral tricuspid insufficiency
- Moderate left atrial enlargement
- Stage B2+ with early pulmonary hypertension and passive congestion
- Moderate degenerative left renal changes, mild degenerative right renal changes

INVOICE

38123

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

DATE

6/1/22

Recommend adding to the current protocol: ACE inhibitor 0.5 mg/kg SID progressing to BID, Spironolactone 1-2 mg/kg BID, Lasix 1-2 mg/kg BID. Recheck echo in 7-10 days.



PATIENT

Gigo Manrique

Full urinary workup warranted if not already performed, given the left kidney pyelectasia. If any evidence of UTI is present, treatment for 4 weeks indicated, given the pyelectasia and echogenic debris in the left kidney, which would be suggestive for chronic pyelonephritis.

SPECIES

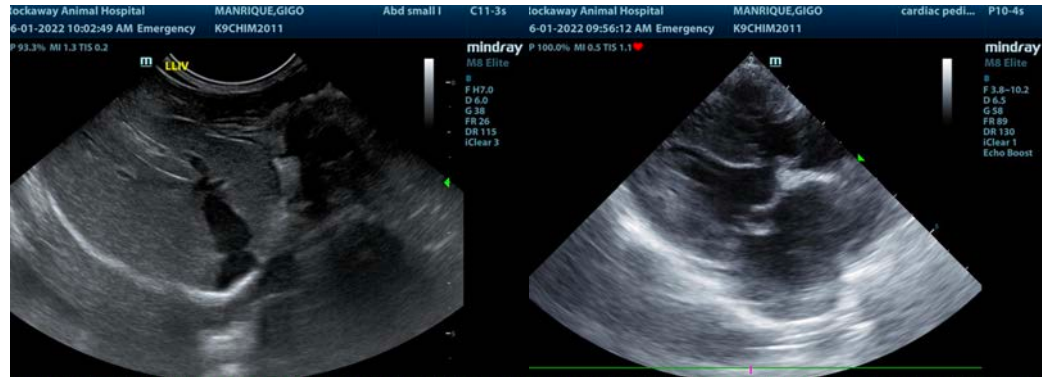
Canine

BREED

Chihuahua

SEX

Male



AGE

10 Years

WEIGHT

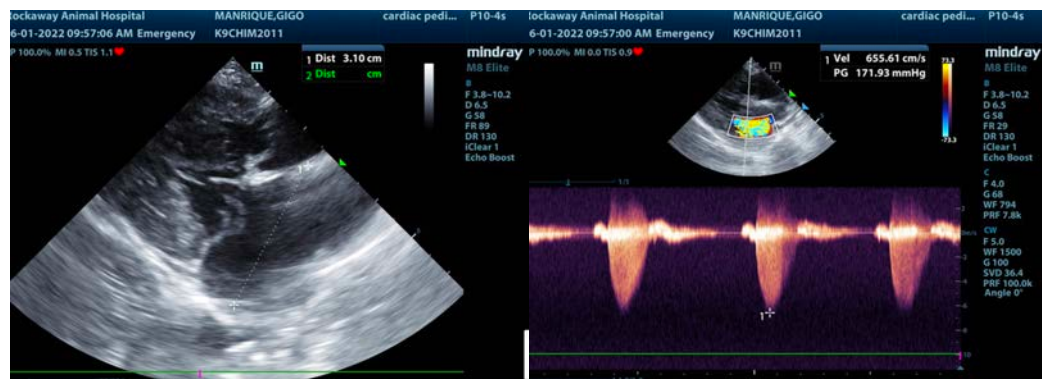
4.9 Pounds



INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUS



IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway AH

REFERRING VET

Dr. Bednar

INVOICE

38123

DATE

6/1/22



PATIENT

Gigo Manrique

SPECIES

Canine

BREED

Chihuahua

SEX

Male

AGE

10 Years

WEIGHT

4.9 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway AH

REFERRING VET

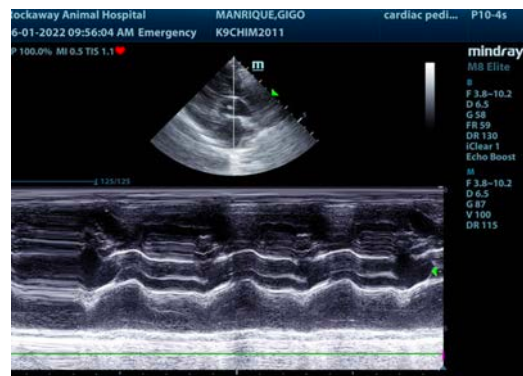
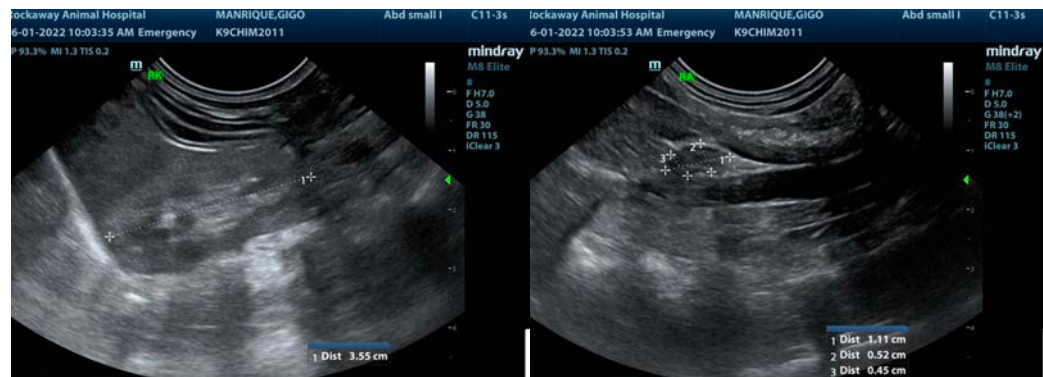
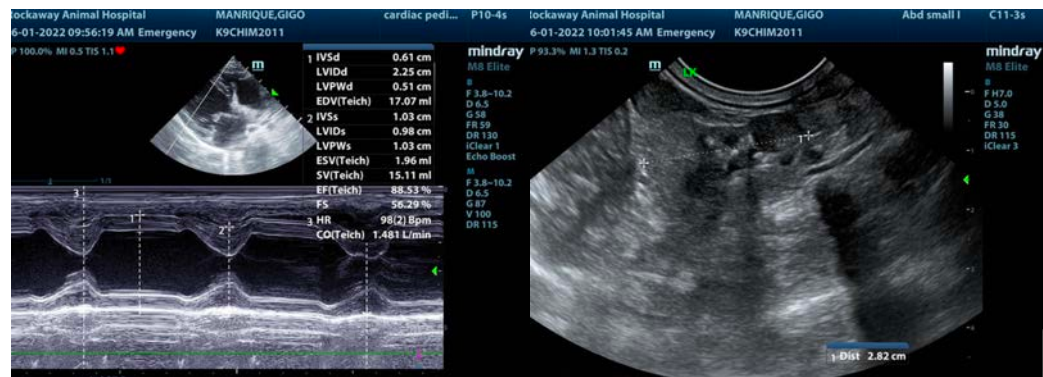
Dr. Bednar

INVOICE

38123

DATE

6/1/22



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