



**PATIENT PRESENTING CLINICAL SIGNS**

Soko Halfway Home  
Rescue

Hospice case from rescue, chronic renal dz liver mass heart murmur on PE Current meds IVF Entyce Unasyn

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine

**BREED**

Shih Tzu

**SEX**

Female

**AGE**

19 Years

**WEIGHT**

5 Pounds

| 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                   | 5.0           |               | 1.2                 | 1.4                     | --                              | --                                       | 0.1                                      |
| 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                   | --            | --            | 1.0                 |                         | 2.28                            | 1.5                                      |  |

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. Moderate filling of the left atrium noted. Prolapse of the anterior mitral valve leaflet noted. No evidence of volume overload. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. **Myocardial** remodeling noted. **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** was mildly enlarged, 1:1 ratio with the left atrium. **Tricuspid** insufficiency noted with mild filling of the right atrium. 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. Arrhythmogenic activity noted.

Rapid view of the liver revealed a large hepatic mass. Further imaging indicated. No evidence of passive congestion.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Jenn

**HOSPITAL NAME**

Rockaway AH

**REFERRING VET**

Dr. Gannon

**INVOICE**

36629

**DATE**

3/31/22

**ULTRASONOGRAPHIC FINDINGS**

- Myocardial remodeling, Stage B1 valvular disease with arrhythmogenic activity
- Large hepatic mass



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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

EKG indicated. Blood pressure measurements indicated.

B1: 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.

**SEX**

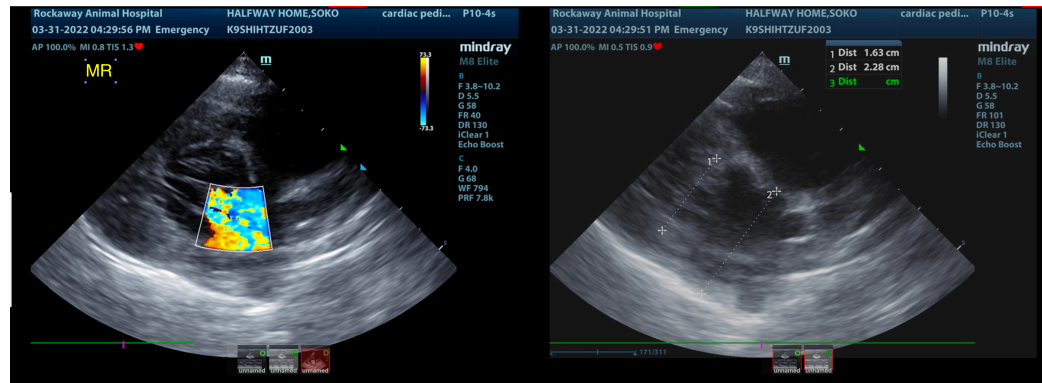
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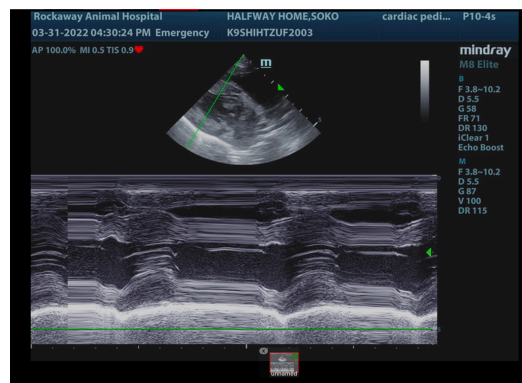


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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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