



## PATIENT

Toby Davis

## SPECIES

Canine

## BREED

Jack Russell

## SEX

Neutered Male

## AGE

13 Years 7 Months

## WEIGHT

12.7 Pounds

## INTERPRETED BY

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

## IMAGING PERFORMED BY

Alex McFeely, DVM

## HOSPITAL NAME

Straley VA

## REFERRING VET

Alex McFeely, DVM

## INVOICE

14553

## DATE

4/2/22

## PRESENTING CLINICAL SIGNS

History: Toby has been under veterinary care for episcleritis in his left eye, which began in August of 2021 and gradually improved with topical ophthalmic steroids. On one of his recheck visits in late January 2022, a novel cardiac murmur was ausculted and cardiac diagnostics were recommended. He presented April 1st for his chest radiographs and ultrasound. The murmur was a 3/6 intensity loudest in area of mitral PMI and he currently does not have any clinical signs related to a cardiac issue, although his episcleritis appeared to be starting to recur. He was given 1.2mg butorphanol IV to lightly sedate for the ultrasound exam, and his BP settled at 141/89 (110) mmHg systolic/ diastolic (MAP). On his chest rads, his VHS was 9.5 and there was loss of cardiac silhouette caudal waist but all other structures appeared normal.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	--	--	1.3	1.4	45	90	0.2
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	--	--	.60	--	3.0	2.6	--

## Cardiac Presentation

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 trivial, eccentric 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



**PATIENT**

infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

Toby Davis

**Other**

**SPECIES**

Subjectively, multiple nodules were noted in the **liver**. Abdominal sonogram recommended. Hepatic veins were not dilated.

Canine

**BREED**

**ULTRASONOGRAPHIC FINDINGS**

Jack Russell

- Stage B-1 valvular disease
- Mitral insufficiency, fairly trivial
- No evidence of volume overload
- Multiple nodules were noted in the liver- abdominal sonogram recommended

**SEX**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Neutered Male

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.

**AGE**

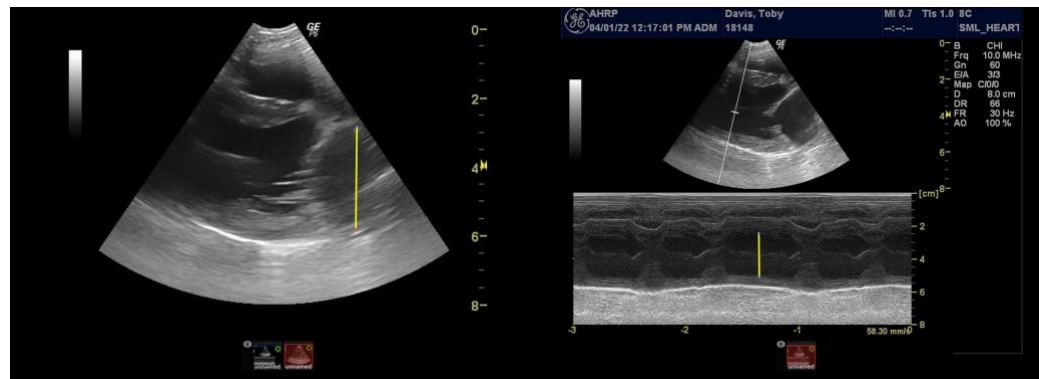
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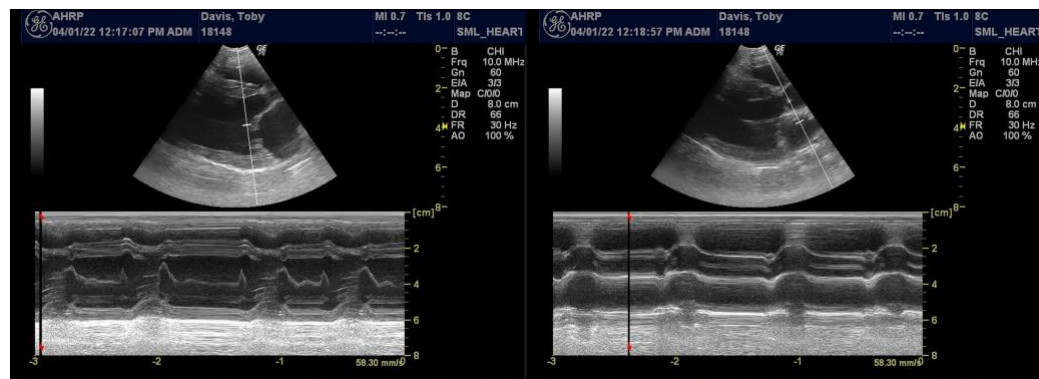


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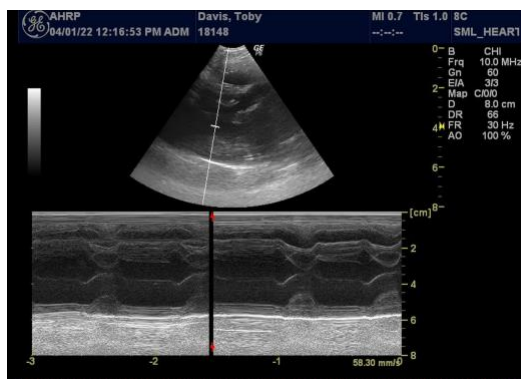
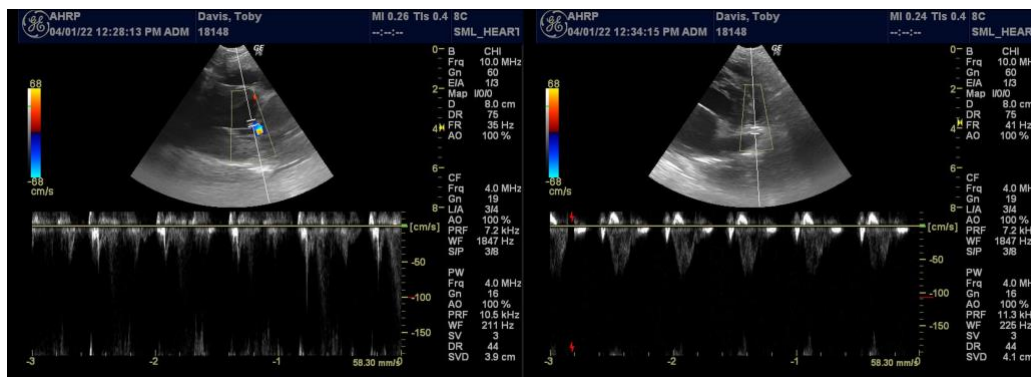
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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