



## PATIENT

Elsa Bishop

## SPECIES

Feline

## BREED

DSH

## SEX

Spayed Female

## AGE

14

## WEIGHT

6.5

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP(CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Dr. Susan Lincoski

## HOSPITAL NAME

University Drive  
Veterinary Hospital

## REFERRING VET

Dr. Susan Lincoski

## INVOICE

15695

## DATE

05/01/26

## PRESENTING CLINICAL SIGNS

HM grade 2/6 - new last year and stable. Nonclinical per owner. X-rays showed enlarged heart and pro BNP was 764 last year. Echo was mentioned but never done.

Abnormal PE/Chem/CBC/UA Results: IRIS stage 1-2 renal disease proBNP=1000

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

FELINE CARDIAC PARAMETERS	BODY WEIGHT	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	6.5	180	0.5	1.2	0.7	50	80
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	1.6	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	1.1	1.1	1.2	--	--	NM	
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

## Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented mild myocardial hypertrophy with mild remodeling. Function and internal volumes were normal. **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 and angles 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 and kinetics. 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 or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window. A large amount of extracardiac fat was noted in this patient and may be simulating the appearance of cardiomegaly as the chamber sizes are normal.

## ULTRASONOGRAPHIC FINDINGS

- Mild idiopathic left ventricular hypertrophy with myocardial remodeling- largely age-related change.



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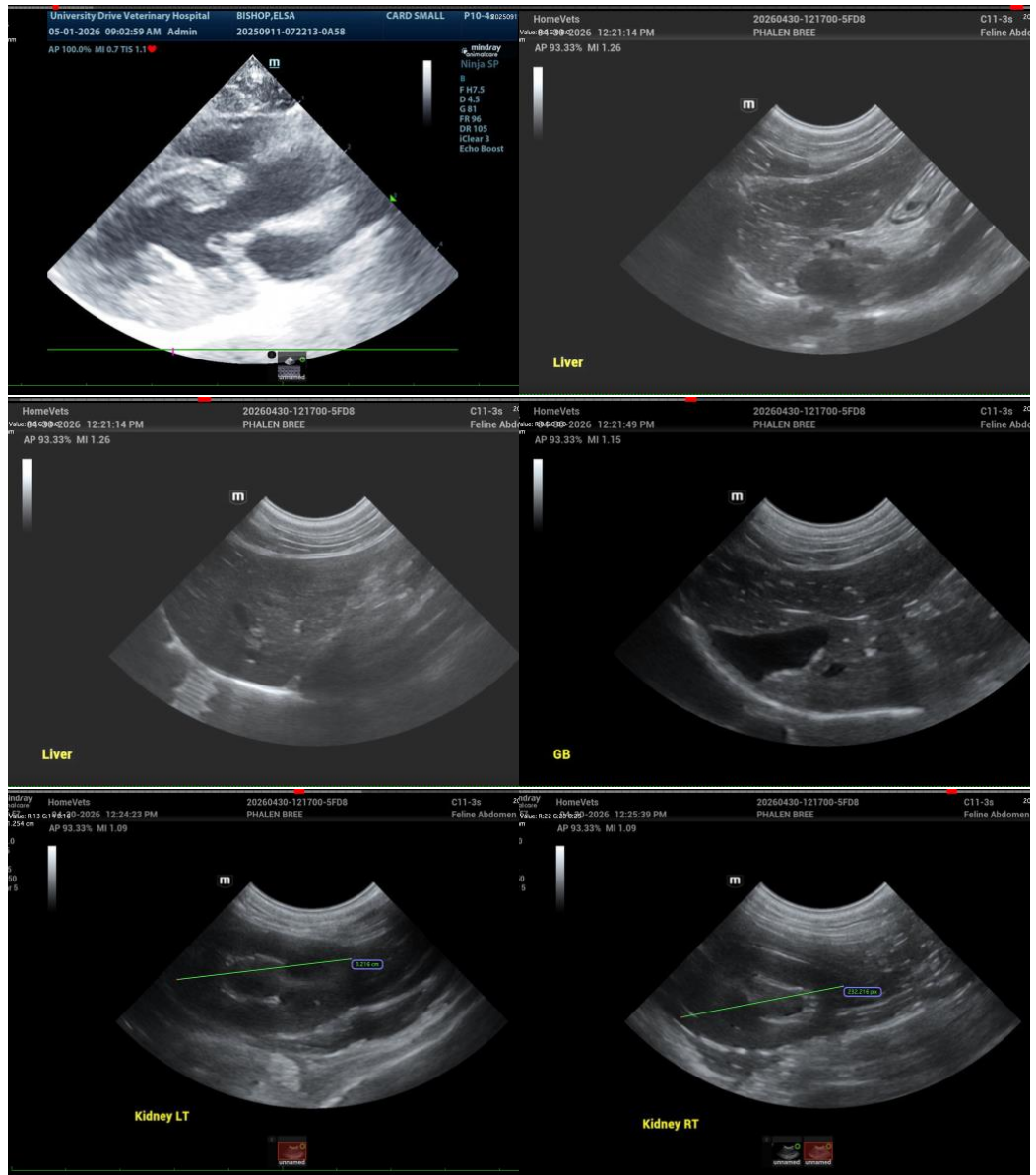
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Cardiac presentation may be an occult form of hypertrophic cardiomyopathy or TMT. A temporary myocardial thickening owing to systemic effects such as hyperthyroidism, hypertension, volume contraction are possible, yet not a clinical issue.





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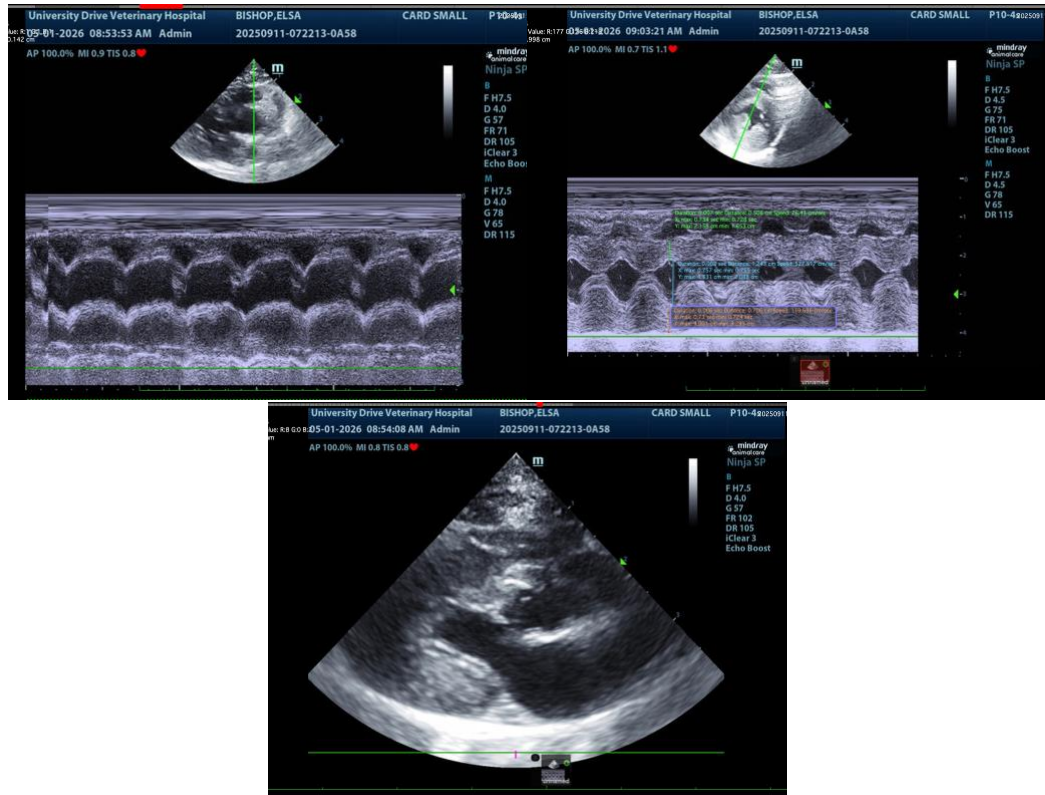
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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(CFM), Cert. IVUSS,**

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