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Clinical Sonography & Telecytology
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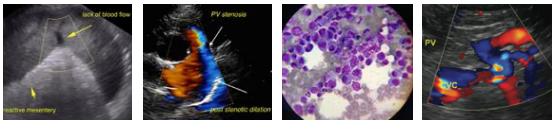

ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT

Kirby Steinberg

SPECIES

Rabbit

BREED

Holland Lop

SEX

Spayed female

AGE

4 years

WEIGHT

3.2 lbs

INTERPRETED BY

Eric Lindquist, DMV, DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Santa Clara AH

REFERRING VET

Dr. Giddens

DATE

8/8/23

Invoice

PRESENTING CLINICAL SIGNS

History: 2/6 heart murmur when examined for pre- anesthesia apt Abnormal PE/Chem/CBC/UA Results: ABNORMAL Laboratory Findings n/a Heart Rate and Respiratory Rates 167/122(142) HR 216 RR 280, 171/119(137) HR 211 RR 280, 156/116(144) HR 214 RR 280, AVERAGE 164/119(137) HR 209 RR 280 Blood Pressure Measurements 167/122 (142) HR 216 RR 280 Current Medications n/a Radiographic Findings n/a

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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 normal 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 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.

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	3.2 lbs	180	0.35	0.84	0.42	45	
CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
PATIENT	1.3	1.3	1.3				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

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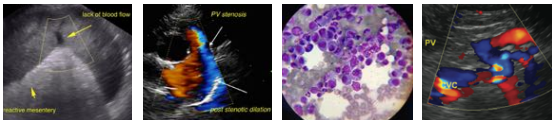

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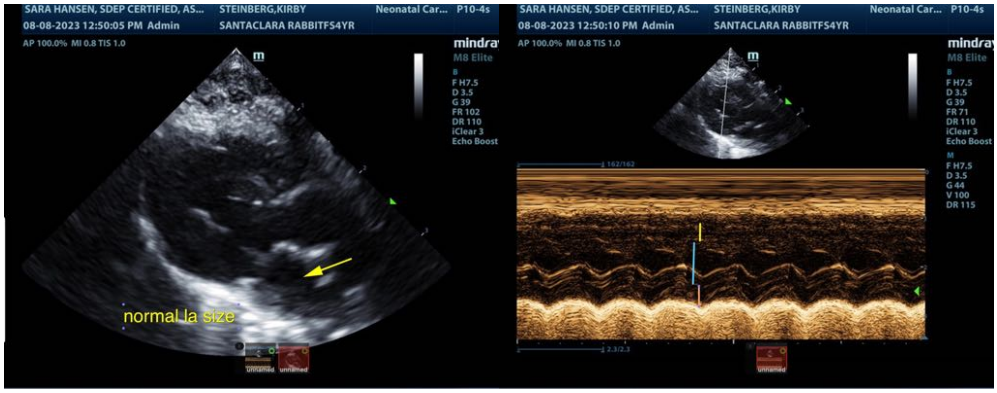
ULTRASONOGRAPHIC FINDINGS

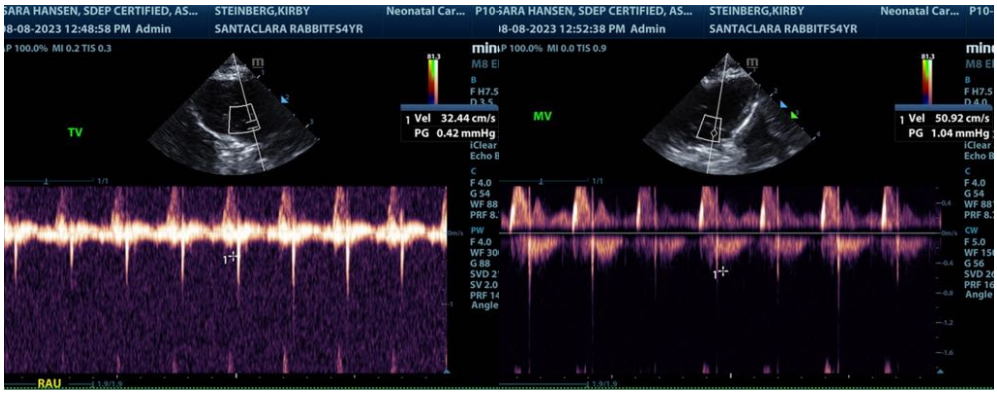
Normal echocardiogram, structure, volumes and contractility for this species. likely flow murmur.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There was no evidence of clinical disease and no contraindication to anesthetic procedure from a cardiac standpoint.

Benign flow murmurs are common. This may be owing to volume shifts, tachycardia, benign (DRVOTO) right ventricular outflow changes, trivial turbulence in any of the valvular apparatuses, or possibly excessive stethoscope pressure against the chest according to a recent study These are physiologically benign and unrelated to specific pathology.





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