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Clinical Sonography & Telecytology
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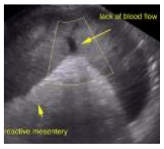
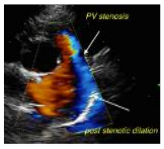
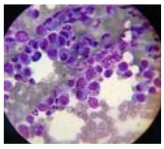
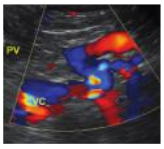

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Bojangles Cupo

SPECIES

Canine

BREED

Boxer

SEX

Neutered Male

AGE

9 Years

WEIGHT

Not Given

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Ringwood AH

REFERRING VET

Dr. Walker

INVOICE

12781

DATE

12/2/21

PRESENTING CLINICAL SIGNS

History: Pre-anesthetic echo for possible mass removal. Grade III/VI murmur, weight loss. No current meds.

Abnormal PE/Chem/CBC/UA Results: T4 0.9 all else unremarkable. USG 1.035

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	--	--	NM	2.5	44	78.6	0.34
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	NM	1.8	1.2	--	5.8	5.0	--

Cardiac Presentation

The echocardiogram in this patient demonstrated moderate to marked **left atrial** size based on 3 different LA measurement methods. Subtle minor deviation of the intraatrial septum towards the right atrium indicative of increased left atrial pressure was present. The cranial and caudal **mitral** valve leaflets presented primarily linear structure with minor subjective vegetative thickening and without evidence of valvular prolapse. Doppler indicated measurable 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 associated with the right atrium or oracle were present. **Tricuspid** valvular assessment demonstrated adequate linear morphology. Color doppler assessment revealed minor insufficiency. 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). Moderately sized ovoid mildly non-homogeneous mass was present in the heart base, primarily adjacent to and above the left atrium as well as adjacent to the aorta. The mass measured approximately 6.0 cm x 6.0 cm. No evidence of concurrent free pericardial or pleural free fluid. Intermittent arrythmia was present.

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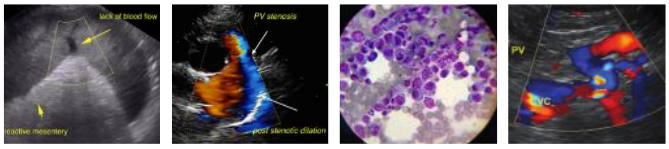

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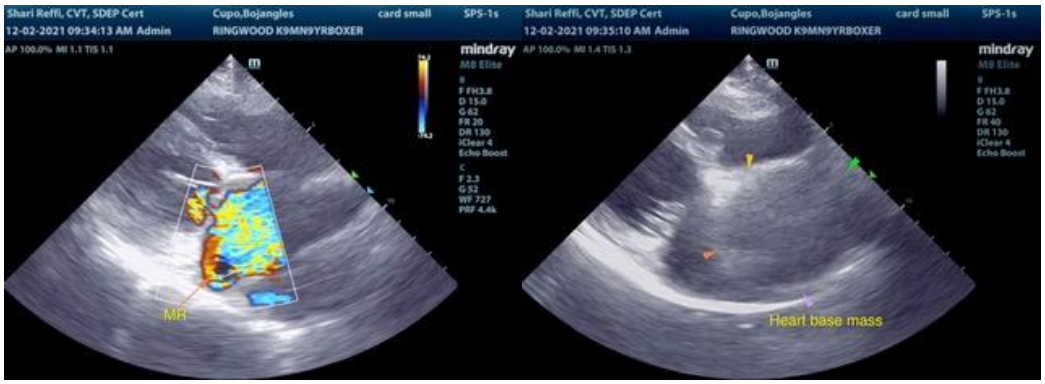
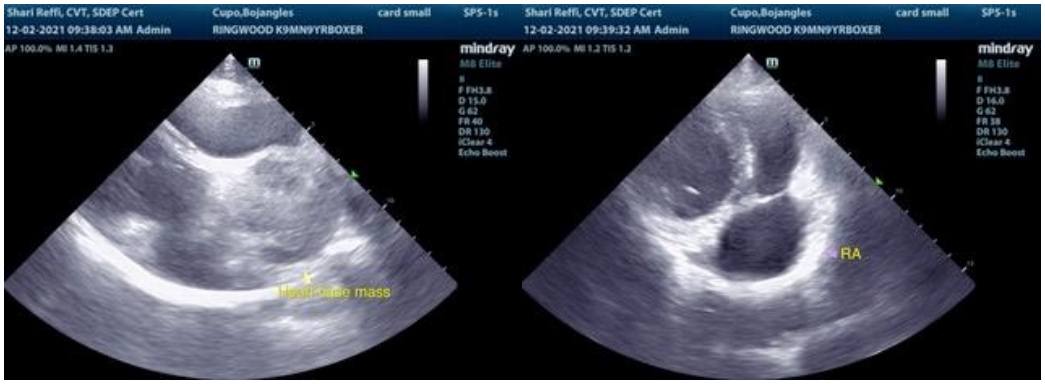
ULTRASONOGRAPHIC FINDINGS

- MR/TR- estimated pulmonary pressure gradient based on TR velocity not overtly consistent with clinical pulmonary hypertension
- LA/LV enlargement
- Intermittent arrythmia
- Heart base mass

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is secondary to mitral valve insufficiency. The increased left atrium and left ventricle size indicate that the risk for future complication, owing to mitral valve insufficiency, is elevated. The primary finding in this case is the heart base mass, which is most consistent with neoplastic criteria. Considerations may include sarcoma, chemodectoma, mesothelioma, metastatic disease or other. This mass did not appear to be impinging or obstructive to the left ventricular outflow given the LVOT velocity. Pimobendan at 0.3 mg per kg PO BID would be warranted with diuretic therapy if evidence of congestion. Given the heart base mass and LV/LA enlargement, anesthetic risk is elevated and not advised unless absolutely necessary. The following anesthetic protocol and judicious IV fluid use recommended if anesthesia is required. Oncology consult could be considered, however, a very guarded to unfavorable long-term prognosis, given the presence of the heart base mass, is warranted.





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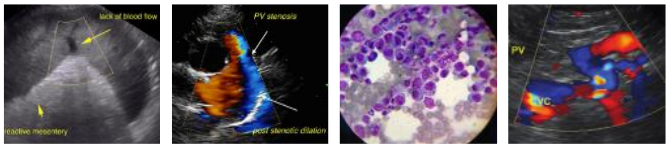

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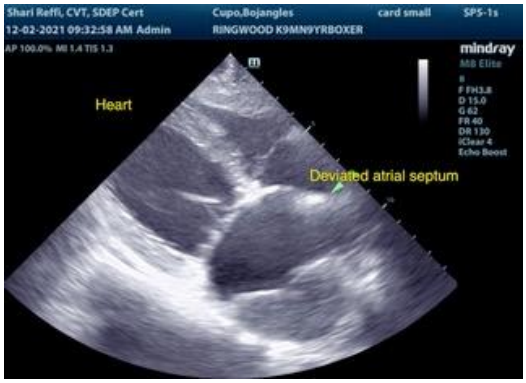

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com