



PATIENT

Grandpa Powers

SPECIES

Canine

BREED

French Bulldog

SEX

Female Spayed

AGE

4 years

WEIGHT

~15lbs

PRESENTING CLINICAL SIGNS

History: Grade 4/6 heart murmur since puppy. Was doing fine but became acutely dyspneic last night; inc BV sounds Today, received flow-by O2 and Lasix without improvement 1 week ago, had episode of hematemesis

-Current medications: Pimobendan and Enalapril.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Right-sided cardiomegaly with concern for CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve leaflets are largely normal with no obvious prolapse into the left atrial lumen. No obvious mitral regurgitation. Small left atrial dimension. Small LV diameter with normal myocardial function. Septal flattening suspected. The tricuspid valve appears thickened; potentially with decreased excursion. Moderate TR. Normal velocity. Stenosis through the RA/RV is possible with increased flow velocity through the region. An exact location cannot be determined; however, a mid-RV stenosis is suspected (r/o dynamic RVOTO secondary to RVH versus a true double chamber v other). The right atrium is marked enlarged. Marked RV dilation with mild hypertrophy. Pulmonic valve is poorly visualized; flow through the region appears normal. MPA and branches are poorly visualized. The aortic valve is normal and flow through the region is normal. No obvious cardiac shunts are present. No pericardial or pleural effusion noted. Ascites noted by the Sonographer.

CARDIAC CHART

INTERPRETED BY
Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

A. Nicastro, DVM

HOSPITAL NAME

Ashley Pines AH

REFERRING VET

Dr. Winney

INVOICE

46430

DATE

1/13/26

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	NA	2.6	NM	1.1	33	60	NM
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	1.3	1.3	6.8	1.5	2.1	1.4
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Unfortunately, this study is of limited quality due to dramatic anatomic distortion and a difficult chest confirmation. What can be said is the clinical issues are certainly due to **right-sided CHF with a markedly enlarged right heart**. The cause of this is not readily apparent. A stenosis through the RV or tricuspid valve is possible; however, it is somewhat atypical to have a normal TR velocity. The left heart is normal to small, likely due to volume underloading. Due to severity of the findings, highly recommend referral in this complicated case.

Regardless of categorical diagnosis, the patient is in right-sided CHF at 4 years of age and full cardiac support should be continued going forward. If referral is declined and QOL suffers despite therapy, euthanasia may have to be elected.

Monitor for development of associated clinical signs (collapse, abdominal distention, cough, labored breathing). Significant exercise restriction is advised.

PLAN

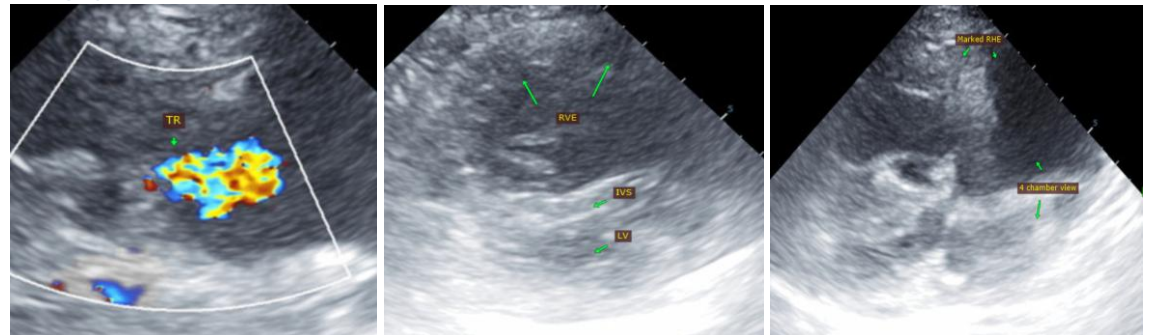
Consider referral as discussed. If declined, attempt continued medical management: Lasix 1-2mg/kg PO q12h, Spironolactone 1-2mg/kg PO q12h, Pimobendan 0.3mg/kg PO q12h.

Abdominocentesis as needed for comfort/appetite. Monitor renal values/BP in 1-2 weeks, then every 3-4 months lifelong.

If QOL suffers, euthanasia should be elected.

Recheck echocardiogram in 6 months.

IMAGES



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. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com