



PATIENT PRESENTING CLINICAL SIGNS

Hershey Wieber

History: History: Cardiac murmur, possible syncope, tracheal collapse, back pain and ataxia, hindlimb paresis, recent episodes of pain/vocalizing and hiding Primary reason for ultrasound referral: work up possible syncopal episodes prior to cystotomy

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: Abnormal laboratory findings: urine pH 5.0 Other diagnostics available (ie. Blood pressure, radiographs, etc): BP systolic 164, rads mineralization kidney, bladder, squared LA, perihilar alveolar pattern, "old dog lungs", tracheal collapse Abnormal physical exam findings: murmur, ataxia, generalized muscle loss, resents abdominal palpation

BREED

Shih Tzu

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

SEX

Neutered male

The **echocardiogram** presented a prominent **right heart** with mild **right ventricular** hypertrophy, with **tricuspid** insufficiency, and normal **right atrial** size. No evidence of neoplasia was noted in the right auricle, or elsewhere in the heart. The **pulmonary artery** was uniformly prominent with mildly depressed pulmonic velocity measured on PW Doppler. No overt heartworms were noted in the main or visible deep pulmonary arteries. Yet, theoretically heartworms could be present in the deep pulmonary vasculature out of visible sonographic range. More likely, however, this prominent right heart is due to excessive intra-thoracic pressures caused by chronic respiratory disease or potentially excessive intra-thoracic fat (Pickiwickian syndrome). The **left heart** demonstrated a linear **ventricular septum**. Contractility was functionally adequate demonstrated by the FS% measurement. The **mitral valve** revealed insufficiency. No significant **left atrial** dilation was noted. The **left ventricular outflow** demonstrated normal flow patterns and velocities through the aortic valve. No evidence of tumor, pericardial or pleural effusion was noted. The visible **extra-cardiac** tissues were uniformly linear without evidence of masses, infiltrative or inflammatory mediastinal tissue. Periodic arrhythmia was noted.

AGE

16 years

WEIGHT

7.08 kg

INTERPRETED BY

Eric Lindquist,
DMV
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IVUSS

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	<1.3	28-40	40-100	<0.6
PATIENT			1.3	1.4			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				
PATIENT		1.3	0.6	7.08 kg	2.6		

IMAGING PERFORMED BY

Dr. Stegemoller

HOSPITAL NAME

North Idaho AH

REFERRING VET

Dr. Neher

INVOICE

30522

DATE

5/18/22



PATIENT

Hershey Wieber

ULTRASONOGRAPHIC FINDINGS

Cor pulmonale.

SPECIES

Canine

Mitral and tricuspid insufficiency with early pulmonary hypertension based on pulmonic insufficiency velocities.

Periodic arrhythmia.

BREED

Shih Tzu

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Tricuspid insufficiency was noted on color flow, yet not able to be ascertained from spectral approach. There was no evidence of right sided failure at this point. No specific therapy is warranted at this time.

SEX

Neutered male

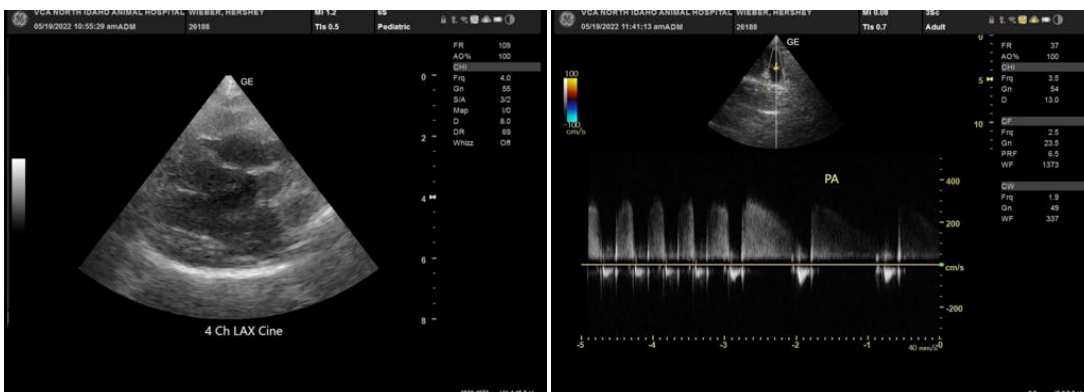
The hepatic veins were not dilated. Periodic arrhythmia was noted in this patient. Syncope is technically possible; however, typically the parameters of pulmonary hypertension are much more dramatic when syncope is owing to pulmonary hypertension. EKG or Holter monitor would be appropriate. Other causes of clinical signs such as orthopedic or CNS disease should be considered.

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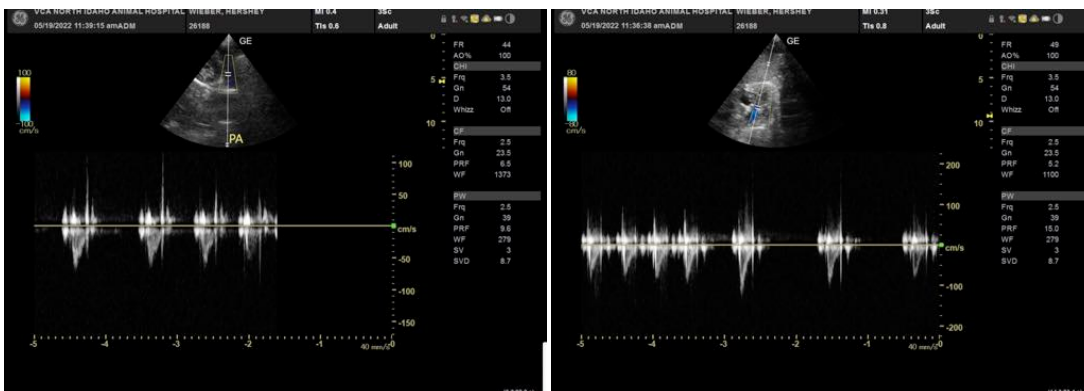
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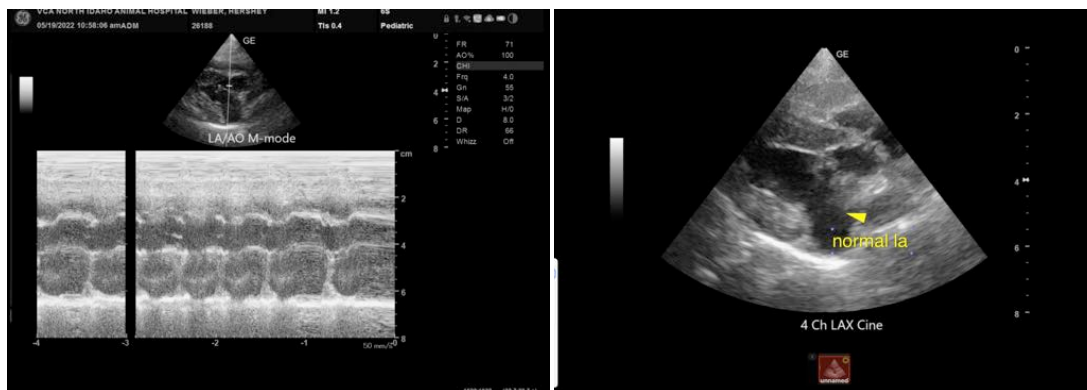
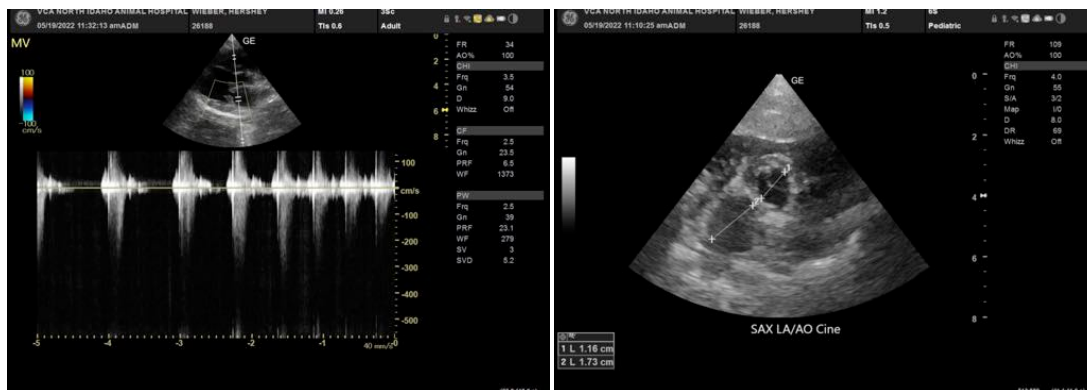
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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