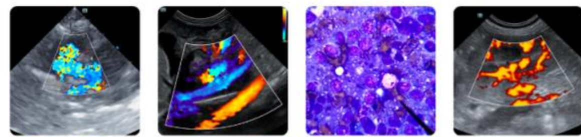


PATIENT

Bowie Hartmann

SPECIES

Canine

BREED

Mixed

SEX

Neutered Male

AGE

10 Years

WEIGHT

8.2 Pounds

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY

Meghan Morse, LVT, CVT

HOSPITAL NAME

East Fishkill AH

REFERRING VET

Dr. Baffi

INVOICE

36406

DATE

3/27/26

PRESENTING CLINICAL SIGNS

- Prev echo found Degenerative Mitral and tricuspid dz ACVIM stage b2- advanced pulmonary hypertension
- Current meds: Furosemide, Enalapril, Pimobendan, Sildenafil

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

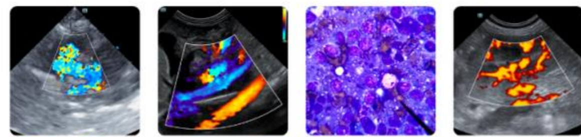
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (m-mode long axis)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.5	NM	1.9	2.1	52	85	0.2
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**LAD** LA MAX 4 Chamber	**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	NM	1.1	1.0	3.7	2.7	2.6	1.3

Cardiac Presentation

The **left atrium** is moderately enlarged, with no evidence of smoke or thrombus formation. The **left ventricle** is mildly dilated with normal wall thickness and demonstrates good systolic function. The **right atrium** is subjectively of normal size and **right ventricle** dimensions, and systolic function are subjectively normal. There is significant **mitral valve** regurgitation, with prolapse of the anterior leaflet, and trivial **tricuspid valve** regurgitation noted, with irregular thickening of the mitral valve leaflets. No vegetative lesions were seen. The mitral E-wave Velocity is 1.0 m/s, the mitral A-wave Velocity is 0.9 m/s, consistent with mildly elevated left ventricular filling pressures. The **aortic** and **pulmonary valves** both exhibit normal appearance and function. The **main pulmonary artery** appears normal, as does the **caudal vena cava**. There is no evidence of clinically significant pulmonary hypertension. No pericardial/pleural effusion or cardiac masses are seen. There is no evidence of an arrhythmia.

ULTRASONOGRAPHIC FINDINGS

- Myxomatous mitral valve disease (MMVD) – Stage B2 (or compensated Stage C)



PATIENT

Bowie Hartmann

SPECIES

Canine

BREED

Mixed

SEX

Neutered Male

AGE

10 Years

WEIGHT

8.2 Pounds

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY

Meghan Morse, LVT, CVT

HOSPITAL NAME

East Fishkill AH

REFERRING VET

Dr. Baffi

INVOICE

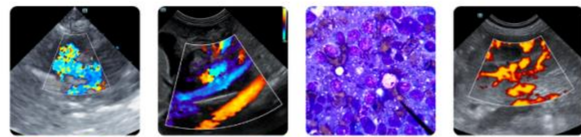
36406

DATE

3/27/26

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- There is no evidence of congestive heart failure nor significant pulmonary hypertension at this time. Given that the patient's current treatment includes therapy for congestive heart failure pulmonary hypertension, it may be that the patient has these conditions, but that they are well-compensated with the current treatment. Thus, continuation of the current therapies, at the current doses, is recommended.
- If that patient is having respiratory symptoms, such as coughing, this is likely due to non-cardiac causes – thoracic radiographs would be recommended to further investigate, if applicable.
- Daily monitoring of the sleeping respiratory rate at home is recommended, and if the sleeping respiratory exceeds 35 breaths per minute, then a prompt recheck physical examination and chest radiographs to assess for pulmonary edema would be warranted.
- The patient may benefit from a cardiac diet such as Purina's "CardioCare" veterinary diet. Omega-3 Fatty acid supplementation may also be of benefit.
- Extremely vigorous exercise should be avoided, but there are no restrictions on moderate exercise, such as leash walking.
- Recheck echocardiogram is recommended in 6-8 months. MMVD is a progressive disease, and it is likely that additional medication may be needed in the future.
- If anesthesia is needed, the following recommendations are suggested:
    - If possible, wait 2-3 weeks after starting pimobendan before proceeding with anesthesia
    - Avoid a-2 agonists such as dexmedetomidine and xylazine.
    - Pre-medication with an opiate and a benzodiazepine is recommended. Additionally, Gabapentin 10mg/kg PO and trazodone 5mg/kg PO given first thing in the morning on the day of the procedure can further reduce inhalant anesthetic requirements.
    - Pre-oxygenation, followed by induction with propofol or alfaxalone is recommended, followed by maintenance with isoflurane or sevoflurane.
    - When feasible, the use of local anesthetic blocks can decrease maintenance anesthetic requirements.
    - Moderate use of IV fluids throughout the procedure is recommended, with a starting dose of 3-5ml/kg/hr, with modest increases as needed to support blood pressure, but not to exceed a total volume of 20-30ml/kg for the procedure. The minimum volume necessary to maintain adequate blood pressure is desirable.
    - Use atropine, if necessary, to maintain a HR > 90 throughout the procedure. If available, a dopamine or dobutamine CRI can be used for additional blood pressure support if the patient experiences hypotension.



PATIENT

Bowie Hartmann

SPECIES

Canine

BREED

Mixed

SEX

Neutered Male

AGE

10 Years

WEIGHT

8.2 Pounds

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY

Meghan Morse, LVT, CVT

HOSPITAL NAME

East Fishkill AH

REFERRING VET

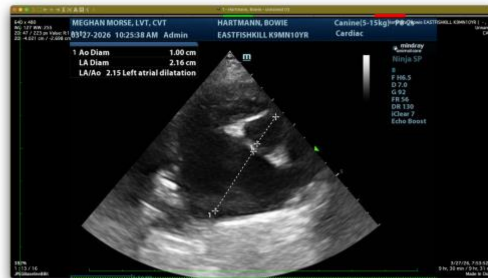
Dr. Baffi

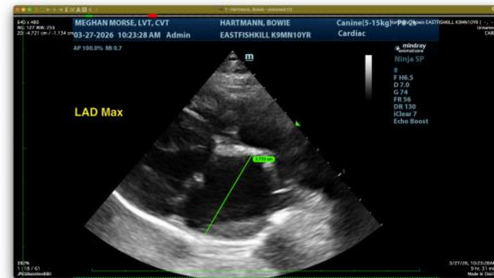
INVOICE

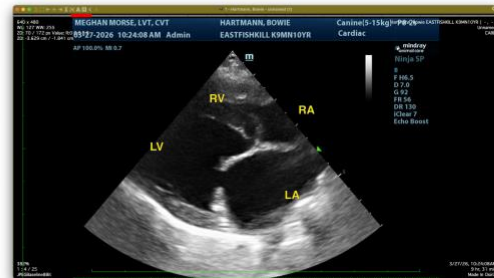
36406

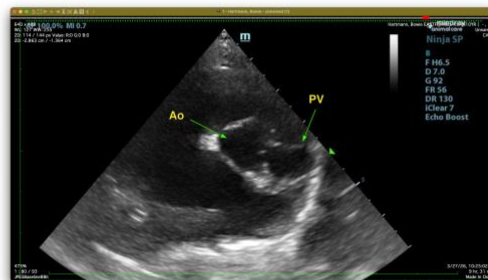
DATE

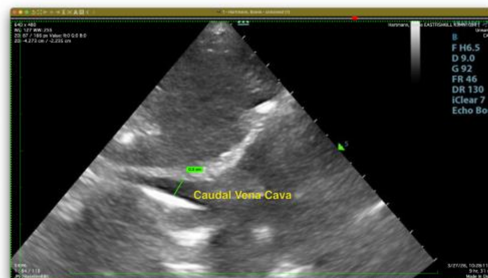
3/27/26







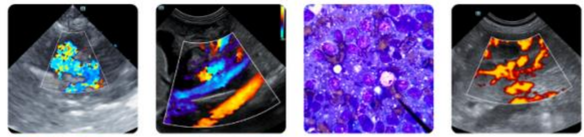




The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Tam Mengine, DVM, DABVP (canine/feline practice)



PATIENT

Bowie Hartmann

SPECIES

Canine

BREED

Mixed

SEX

Neutered Male

AGE

10 Years

WEIGHT

8.2 Pounds

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY

Meghan Morse, LVT, CVT

HOSPITAL NAME

East Fishkill AH

REFERRING VET

Dr. Baffi

INVOICE

36406

DATE

3/27/26

info@SonoPath.com