

PATIENT PRESENTING CLINICAL SIGNS

Finn Bratt
 History: Lethargic, not breathing like himself while at rest. Not eating well. Had "seizure like" episode in waiting room day of US. RR 70 at night at rest. Noted more coughing, not productive. Was at a kennel for two days last week but he had been coughing prior to that. Exercise intolerant. No meds. No known allergies. HR 200, can elicit cough on tracheal pinch. Starting Clavamox, Vetmedin and Furosemide.
Abnormal PE/Chem/CBC/UA Results: Please read attached ECG. Please see attached radiographs and Blood pressure readings.

SPECIES

Canine

BREED

King Charles Cavalier Spaniel

SEX

Neutered male

AGE

8 years

WEIGHT

18.8 lbs

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Hillview VC

REFERRING VET

Dr. Stevenson

INVOICE

74473

DATE

4/15/26

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The left atrium is severely enlarged. The left ventricle is mildly enlarged with normal systolic function. The right atrium and ventricle are subjectively normal in dimension with normal systolic function. The anterior and posterior mitral valve leaflets are thickened and redundant consistent with myxomatous changes, and there is severe prolapse. There is moderate to severe mitral regurgitation identified. The tricuspid valve leaflets are appropriately thin with adequate apposition and intact chordae, with trivial tricuspid regurgitation and no evidence of pulmonary hypertension. The left ventricular outflow tract demonstrated normal laminar flow and the visible aorta is unremarkable. The right ventricular outflow tract assessment revealed normal laminar flow, with appropriate main pulmonary artery diameter and right pulmonary artery distensibility. There is no pulmonic and no aortic valve insufficiency identified. There is no visible pericardial, pleural, or free peritoneal fluid documented. No evidence of hepatic venous congestion is noted. The cardiac chambers, pericardial, and visible extra-cardiac regions were free of masses, spontaneous echo contrast, or thrombi. B-lines are noted in the pulmonary parenchyma. Thoracic radiographs reveal pulmonary infiltrate consistent with pulmonary edema in the perihilar to caudodorsal regions, with dilated pulmonary veins and generalized cardiomegaly with left atrial enlargement.

CANINE CARDIAC PARAMETERS	Body Weight kg	HR BPM	LAD 4 ch Long	RAD 4 ch Long	La/Ao Heart Base	LVIDd	LVIDs
NORMAL PARAMETER		50-100			<1.6		
PATIENT	8.5 kg	180	4.69	NM	2.3	3.52	1.73
CANINE CARDIAC PARAMETERS	FS	EPSS	PV V MAX (m/s)	AV V Max (m/sec)	MR Vmax	TR Vmax	RPA distensibility (normal >30%)
NORMAL PARAMETER	28-40	<0.6	0.7-1.6	0.7-1.7	4.5-5.5	< 2.7	
PATIENT	51	0.3	0.8	1.8	5.0	1.9	37

ECG:

There is a six-lead ECG available for review at a paper speed of 25mm/s. The underlying rhythm is regular at an average rate of 180bpm. The rhythm appears to be sinus in origin with narrow QRS



PATIENT

complexes (<70ms). There is no atrial or ventricular ectopy and no conduction delay or block identified. This is most consistent with a normal sinus tachycardia.

Finn Bratt

ULTRASONOGRAPHIC FINDINGS

SPECIES

These findings are consistent with degenerative mitral valve disease with significant hemodynamic effects. Given the degree of chamber enlargement and recent thoracic radiographs, congestive heart failure is a likely explanation for the clinical/radiographic signs, consistent with ACVIM Stage C.

Canine

BREED

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

King Charles Cavalier
 Spaniel

Therapy for CHF is recommended, with Lasix bolus (2-4 mg/kg IV PRN up to 10 mg/kg total dose) or a CRI (0.5-1 mg/kg/hr) as needed to resolve edema. Once oral therapy is started, therapy should include Lasix (2mg/kg BID), enalapril (0.5mg/kg BID assuming normotension and lack of renal insult), and Vetmedin (.25-.35mg/kg BID). Dobutamine (2.5-10 µg/kg/min as a CRI, starting at 2.5 µg/kg/min and increasing the dosage incrementally) may be used in addition to the above treatments to improve the left ventricular function and blood pressure in patients that fail to respond adequately to diuretics, pimobendan, sedation, oxygen, and comfort care measures. A repeat chest X-rays, BP, and chemistry should be performed now for a baseline, and again in 1-2 weeks. A repeat echo is indicated in 3 months. Owners should monitor resting respiratory rate at home. Values above 30 breaths/minute or an increase in respiratory rate 10% above baseline should prompt veterinary re-evaluation.

SEX

Neutered male

AGE

8 years

WEIGHT

18.8 lbs

INTERPRETED BY

Bradley Harris, DVM,
 DACVECC, DACVIM
 (cardiology)

Anesthesia considerations:

Anesthesia should be avoided until manifestations of congestive heart failure (edema/effusion/respiratory distress) have resolved. Following that time, if anesthesia is necessary, then alpha-2 agonists, ketamine, high dose acepromazine, and Telazol should be avoided. If an ACE inhibitor (enalapril, benazepril) or spironolactone is being given, it should not be administered on the morning of general anesthesia. Other cardiac medications should be administered per the normal dosing schedule. Anesthetic IV fluid use should be limited to < 3 ml/kg/hr and, if IV fluid therapy is administered during the procedure, a 1 mg/kg dose of IM Lasix should be administered when the patient is awake and standing in recovery. A shorter anesthetic duration will reduce the risk of complications. Pre-oxygenation is advised. Premedication with an opioid (i.e., butorphanol, hydromorphone, oxymorphone) with or without a benzodiazepine is generally the safest protocol. An induction agent such as Propofol, alfaxalone, or diazepam/etomidate can be used to effect. Maintenance of anesthesia with isoflurane or sevoflurane is reasonable. Dobutamine (2.5-10 µg/kg/min as a CRI, starting at 2.5 µg/kg/min and increasing the dosage incrementally) may be used in lieu of fluid boluses to augment systemic blood pressure.

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Hillview VC

REFERRING VET

Dr. Stevenson

Diet:

A high-quality food from Hills, Royal Canin, Science Diet, Eukanuba, Iams, or Purina that is highly palatable with adequate protein and calories for maintaining optimal body condition with mild dietary sodium restriction (<100 mg/100 kcal) is recommended. Consider omega-3 fatty acid supplementation. Avoid any boutique, exotic, or grain-free diets.

INVOICE

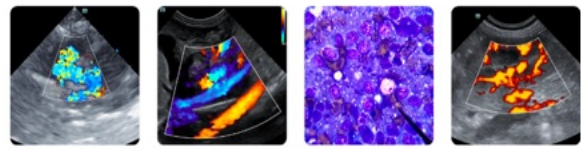
74473

DATE

4/15/26

Activity:

Moderate physical activity (meandering walks, exploring the backyard, playing with toys inside, getting excited when family gets home, etc.) is encouraged, but periods of strenuous aerobic activity (jogging, strenuous outdoor ball play, prolonged play at the dog park, etc.) should be avoided, especially during periods of high heat (> 80 F) and humidity. Dogs with heart disease tend to tolerate cool and cold temperatures much better than high temperatures. Avoid sudden increases in activity (e.g. 2 block



PATIENT

walks during the week but 2 mile walks followed by 30 minutes at the dog park on the weekends) as this may be difficult for the cardiovascular system to deal with.

Finn Bratt

SPECIES

Canine

BREED

King Charles Cavalier
 Spaniel

SEX

Neutered male

AGE

8 years

WEIGHT

18.8 lbs

INTERPRETED BY

Bradley Harris, DVM,
 DACVECC, DACVIM
 (cardiology)

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Hillview VC

REFERRING VET

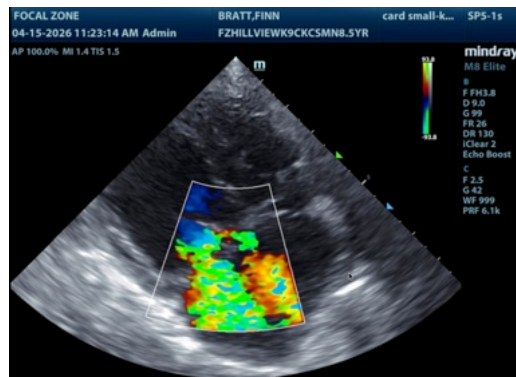
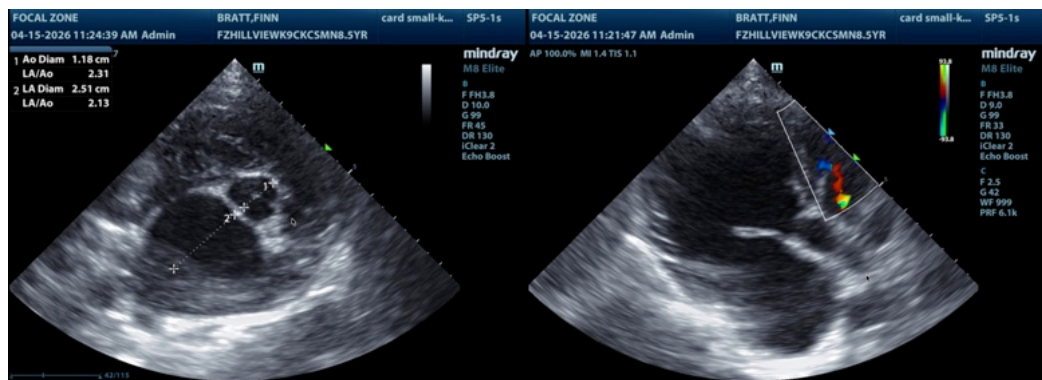
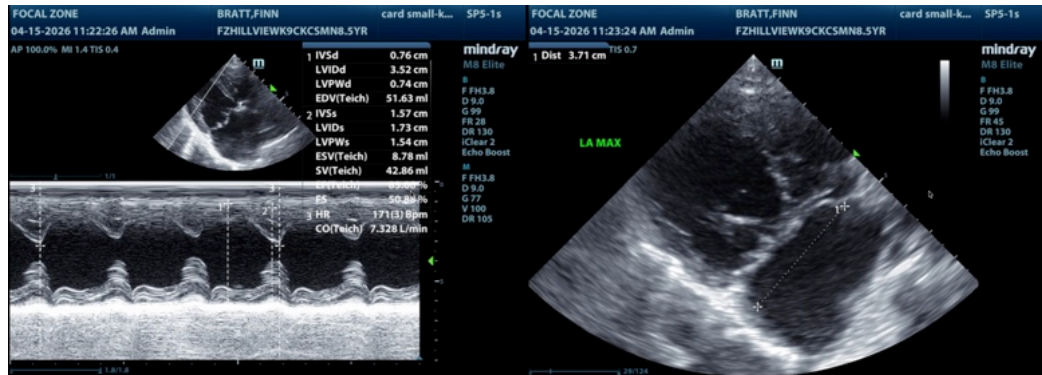
Dr. Stevenson

INVOICE

74473

DATE

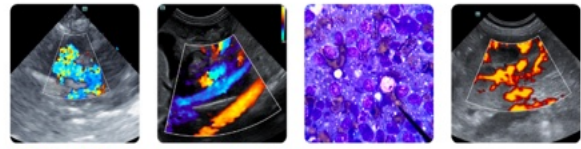
4/15/26



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.

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)



PATIENT info@SonoPath.com

Finn Bratt

SPECIES

Canine

BREED

King Charles Cavalier
Spaniel

SEX

Neutered male

AGE

8 years

WEIGHT

18.8 lbs

INTERPRETED BY

Bradley Harris, DVM,
DACVECC, DACVIM
(cardiology)

**IMAGING
PERFORMED BY**

Crystal Hill

HOSPITAL NAME

Hillview VC

REFERRING VET

Dr. Stevenson

INVOICE

74473

DATE

4/15/26