



Cardiology

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Chief Complaint –

“Sadie” is a 5 year old spayed DSH (domestic short hair) cat with a history of weight loss, lethargy and dyspnea.

Sadie



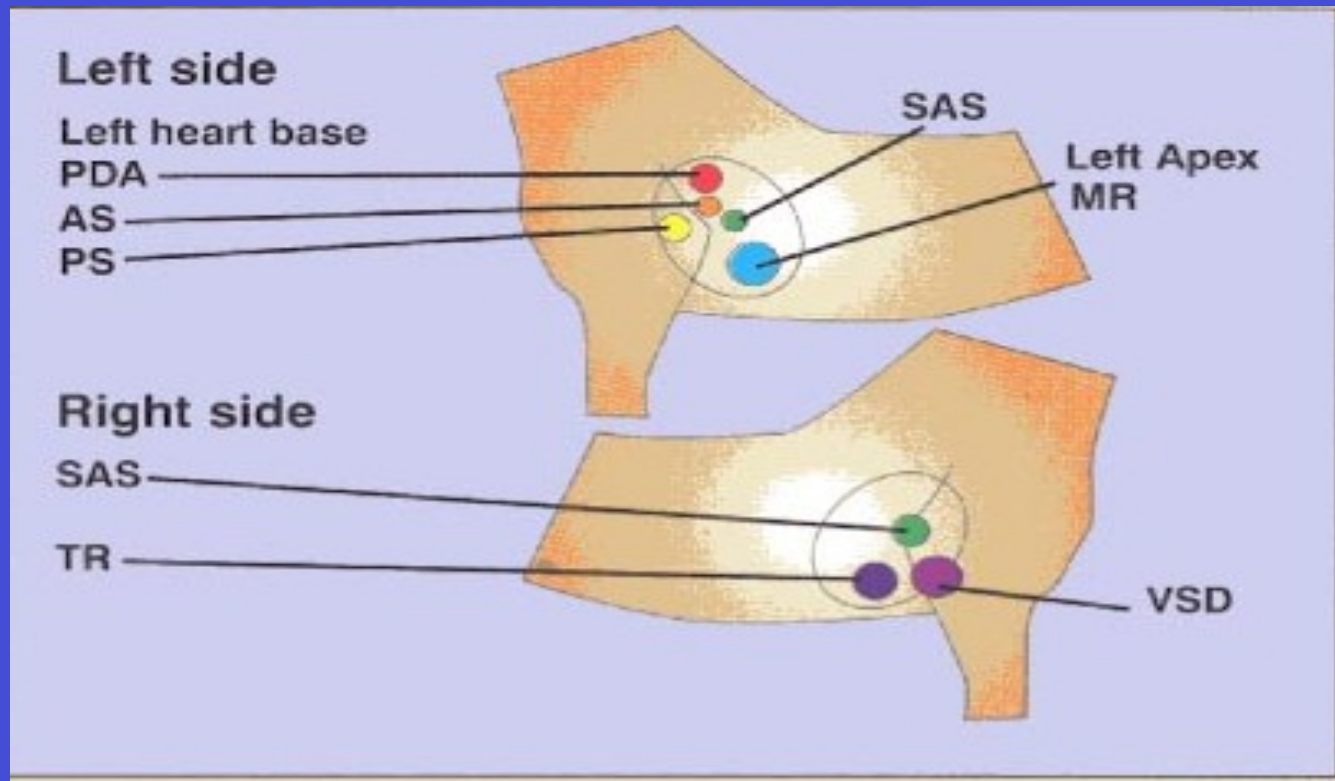
History

- Loosing weight for the past 30 days
- Labored breathing for the past 14 days
- Open mouth breathing today
- Rapid shallow breathing

Physical Examination

- Lethargic
- Temperature 38.0 degrees C
- Heart Rate 200 bpm
- Respiratory Rate 70 per minute
- Systolic murmur with Gallop rhythm
- Dyspnea with lungcrackles

Cardiac Murmurs



Abbreviations

- PDA -Patent Ductos Arteriosis
- AS- Atrial Stenosis
- PS- Pulmonary Stenosis
- SAS - Sub Aortic Stenosis
- MR – Mitral Regurgitation
- TR – Tricuspid Regurgitation
- VSD – Ventricular Scptal Defect

Problem List

- Listless
- Weight Loss
- Systolic Mitral murmur /Gallop rhythm
- Pulmonary crackles
- Open mouth breathing

Rule Outs

- List all the Possible Diagnoses
- *This list is your Rule Out list*

Rule Outs

- DCM – Dilated Cardiomyopathy
- HCM – Hypertrophic Cardiomegaly
- Hyperthyroidism – because of the gallop rhythm and weight loss
- Pericardial effusion
- Mitral valve endocardiosis

Eliminating Rule Outs

- Which diagnoses are unlikely likely from
- Clinical Signs
- History

Rule Outs Based on history and physical exam

- Dilated Cardiomyopathy (DCM)—unlikely usually occurs in large dogs
- Hypertrophic Cardiomegaly (HCM)—likely common in cats with heart disease
- Hyperthyroidism—likely because of the gallop rhythm and weight loss, but usually older cats
- Pericardial effusion - unlikely uncommon in cats
- Mitral valve endocardiosis—unlikely uncommon in cats

The Plan

- What is your PLAN ?

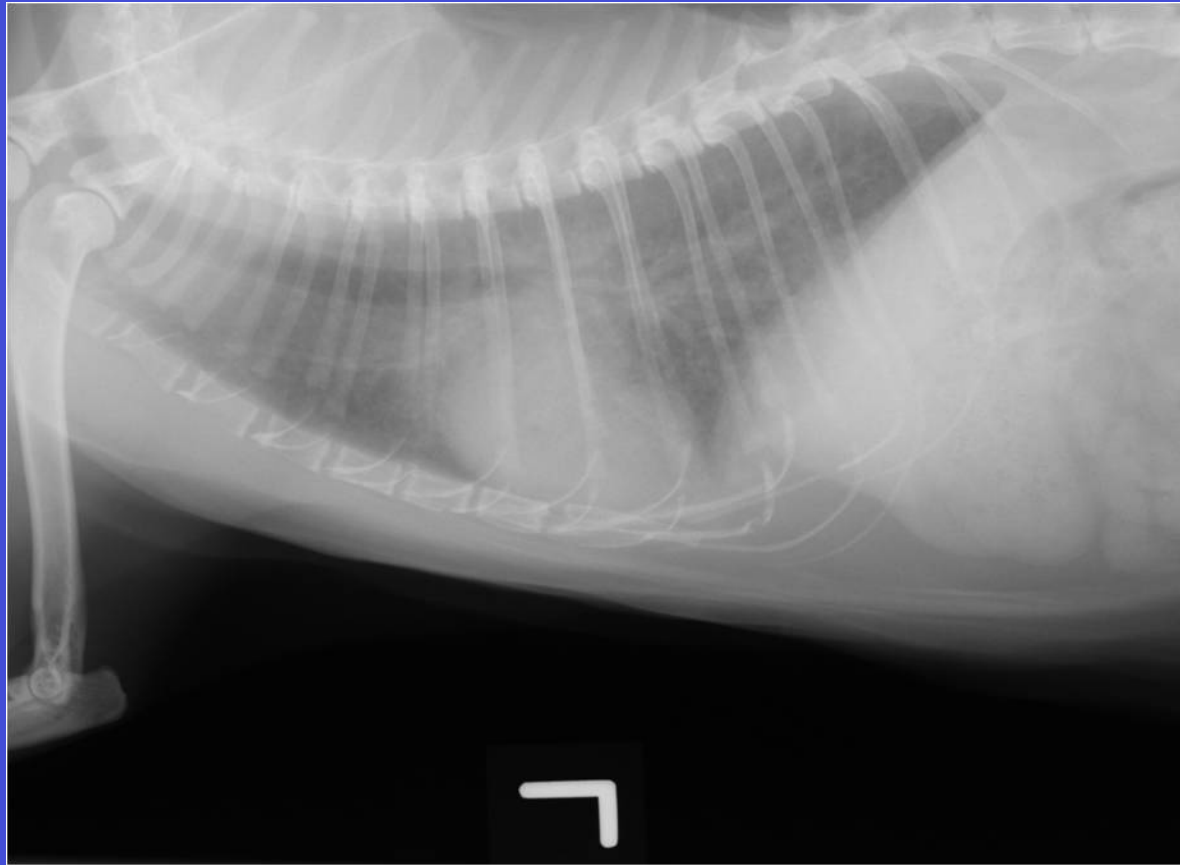
Plan

- Thoracic Radiographs
- CBC/Chemistry/Urinalysis
- Echocardiogram

Radiographs

- Left Lateral View
- Ventral Dorsal View

Radiograph - left lateral



Radiograph - Ventral Dorsal



Radiograph Evaluation

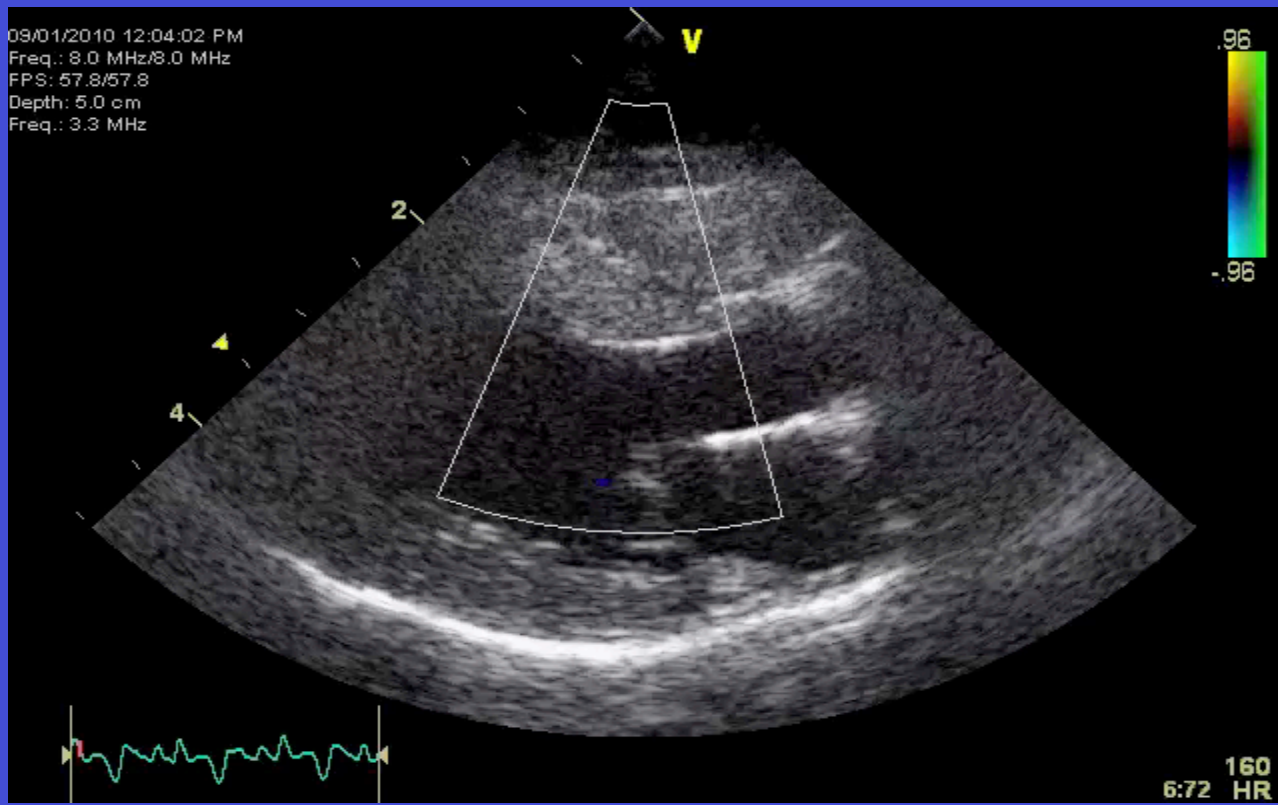
- List all the abnormal radiographic signs that you see on the previous radiographs

Radiographic Lesions

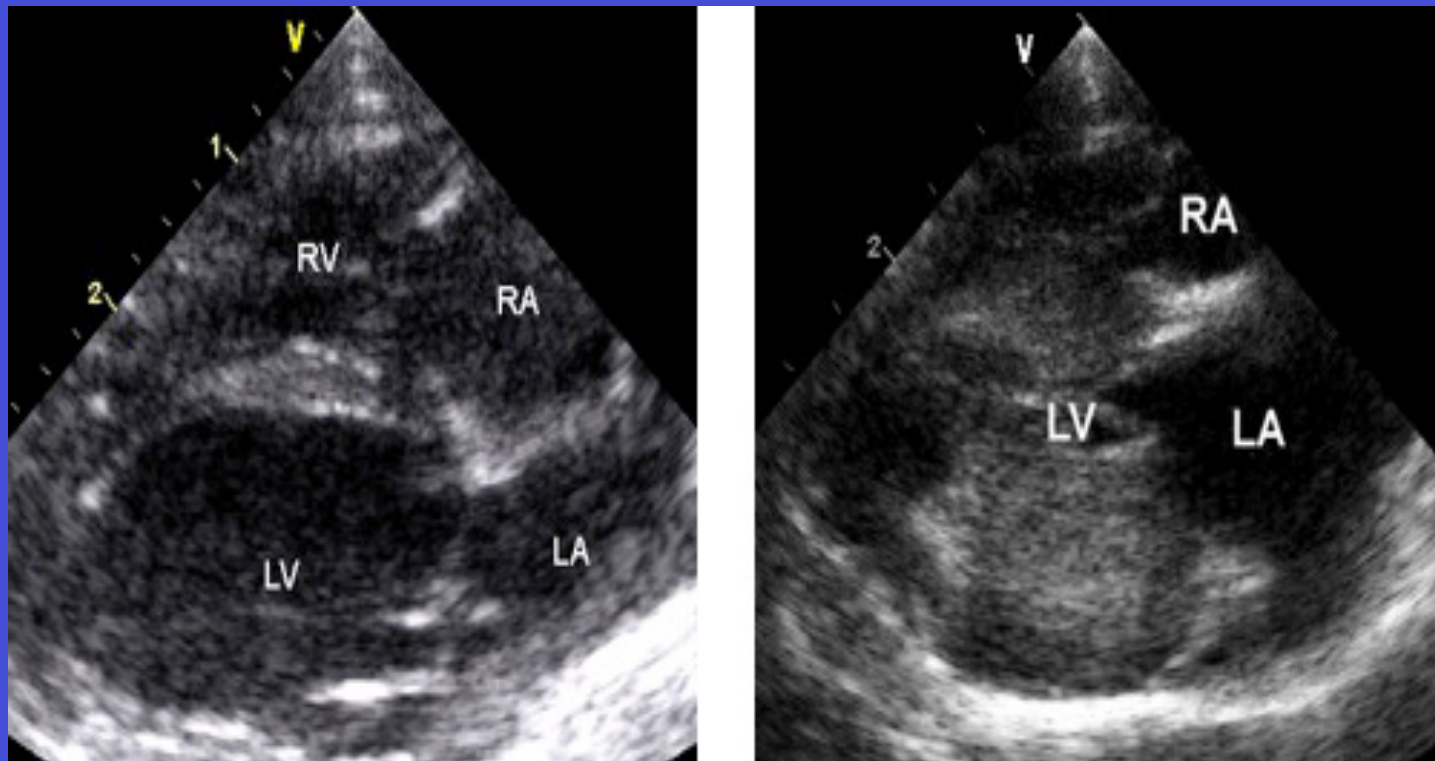
- Bilateral atrial enlargement results in a valentine heart shape

CBC/Chemistry/Urinalysis

- CBC- normal
- Stress leukogram :
 - Lymphopenia
 - Neutrophilia
- Mild increase in BUN but normal Serum Creatinine – therefore prerenal



Echocardiogram



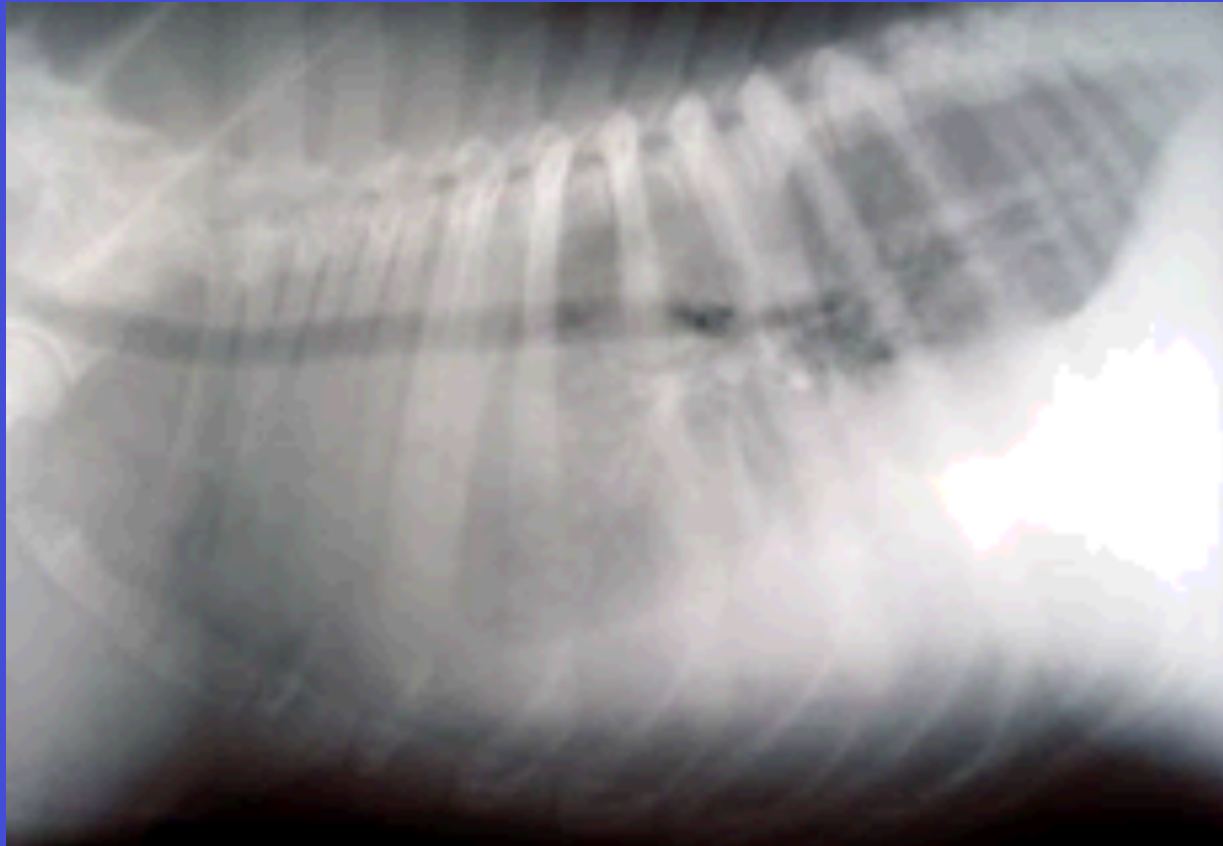
Echocardiogram

- What abnormalities do you see?
- Which picture is normal – left or right?

Echocardiogram

- Left picture is normal
- Right picture – HCM
- Hypertrophy of the interventricular septum
- Hypertrophy walls of both ventricles
- Left atrial enlargement

Thoracic Radiograph Lateral View— 30 days later



Thoracic Radiograph VD View 30 days later



Thoracic Radiographs

- What abnormal radiographic signs can you see?

Thoracic Radiographs Lesions

- No Heart Shadow
- No Lung Detail
- “Leaf “ appearance to the dorsal posterior lung lobes.
- Cause for these radiographic signs?

Thoracic Radiographs

- Radiographic signs consistent with:
- Pleural effusion secondary to HCM – fluid fills the thorax

Summary of Signs of HCM

- Mitral Systolic Murmur - Gallop Rhythm
- Weight loss
- Left Atrial Enlargement
- Dyspnea – often open mouth breathing
- Pleural Effusion and Muffled Heart Sounds
- Ventricular Hypertrophy –Echocardiogram



What is your Diagnosis?

What is your diagnosis ?

What is the etiology?

Final Diagnosis

- Congestive Heart Failure due to Hypertrophic Cardiomegaly – Unknown Etiology

Treatment Plan

- Diuretics – Furosamide
- Diltiazem
- Beta Blockers – Atenolol
- Aspirin
- ACE Inhibitors – Enalapril
- Nitroglycerin Ointment

Prognosis

- Guarded to poor - cats with HCM do not live very long – few months

The End







