



**PATIENT PRESENTING CLINICAL SIGNS**

Angel Martin  
 Dr Leja client sent up for radiographs after ausculting heart murmur Past 2-3 weeks has been coughing frequently, described as both dry harsh and then sometimes moist and wet. Maintains good energy and normal behaviors There is a G 3/6 coarse band mitral murmur that radiates sl to right side.

**SPECIES**

Canine

**RADIOGRAPHIC STUDY OF THE THORAX**

Radiographs of the thorax and collimated abdomen, in three imaging planes are provided for review, two right lateral and one ventrodorsal view.

**BREED**

Pomeranian

**RADIOGRAPHIC FINDINGS**

The thoracic trachea is normal.

**SEX**

Female Spayed

A mild to moderate chronic bronchial pattern and unstructured interstitial pattern is present throughout all lung lobes.

**AGE**

12 Years

The cardiac silhouette dorsally displaces the trachea, spans 3.5 intercostal spaces on the lateral view, is approximately 60% of the thoracic width in the ventrodorsal view, and is convex in the left caudodorsal contour (VLAS = 2.2).

The pulmonary vessels are normal.

The pleural space and mediastinum are normal.

**INTERPRETED BY**

Tilde Rodrigues Froes, DMV, MSc., Dr. Med Vet., Dipl. CBraRVet

On the collimated abdomen, the liver is enlarged with rounded margins, and the gastric axis is caudally displaced.

The stomach is moderately distended, contains gas, and heterogeneous soft tissue ingesta.

**HOSPITAL NAME**

Blandford Animal Hospital

The renal silhouettes are asymmetrical; the right is decreased in size in comparison with the left. Faint punctate mineral opaque material is seen at the level of diverticula and pelvises.

The remainder of the collimated abdomen is normal.

Abundant fat stores are seen in the subcutaneous tissues.

**REFERRING VET**

Lapierre

The musculoskeletal structures are unremarkable.

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**RADIOGRAPHIC DIAGNOSIS**

- Moderate generalized bronchial and unstructured interstitial pattern, differential diagnosis includes allergic lower airway disease, chronic bronchitis, infectious bronchitis.
- Moderate compensated left-side cardiomegaly.
- Hepatomegaly. Differential diagnosis includes metabolic vacuolar change (endocrinopathy), inflammatory, or less likely infiltrative neoplasia.
- Excessive body condition.
- Right sided degenerative renal disease, compensatory hypertrophy at the left side and mineralization of the renal collecting system.

**DATE**

2-28-23



**PATIENT**

Angel Martin

**SPECIES**

Canine

**BREED**

Pomeranian

**SEX**

Female Spayed

**AGE**

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DMV, MSc., Dr. Med  
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Hospital

**REFERRING VET**

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**INVOICE**

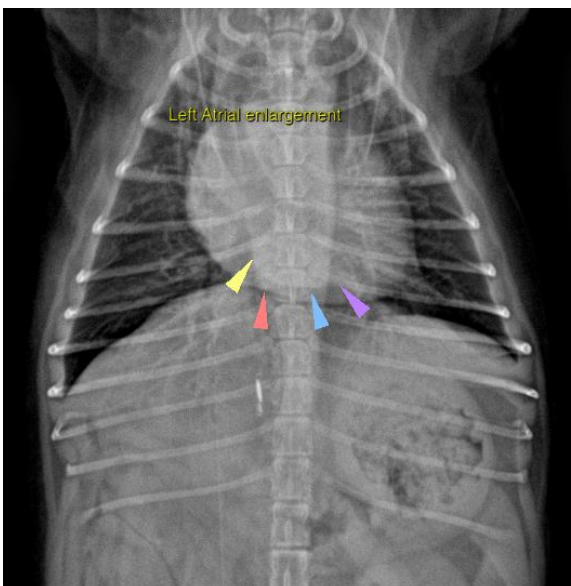
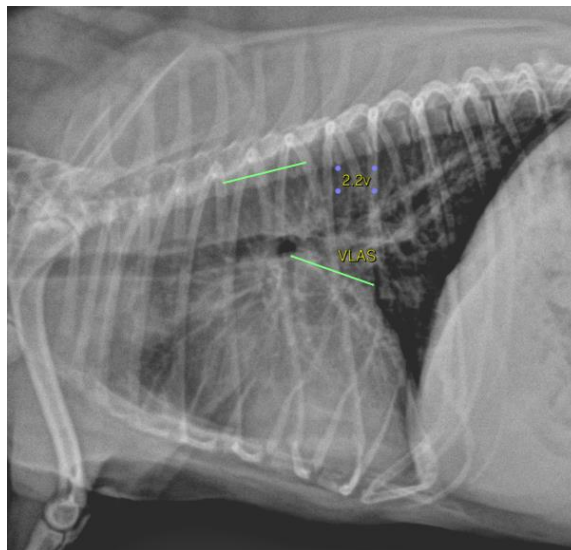
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The possible cause of the clinical signs is associated with allergic lower airway disease, chronic bronchitis, and /or infectious bronchitis. Compensated left sided cardiomegaly is noted. The left sided cardiomegaly in combination with the cardiac murmur is likely a sequela to myxomatous mitral valve degeneration and secondary mitral valve insufficiency. A vertebral left atrial size (VLAS) more than 2.3-2.5 can be used as an indicator of left atrial enlargement and dogs exceeding this cut off likely have hemodynamically unstable myxomatous mitral valve degeneration. No signs of pulmonary venous congestion or pulmonary edema are identified in this patient. A cardiac echo can be used for further assessment of the cardiac chamber size and function. An abdominal ultrasound and laboratory tests are also suggested for further evaluation of the liver and urinary system.





**PATIENT**

Angel Martin

**SPECIES**

Canine

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.

**BREED**

Pomeranian

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.

**SEX**

Female Spayed

**Tilde Rodrigues Froes, DMV, MSc., Dr. Med.Vet., Dipl.CBraRVet**  
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**AGE**

12 Years

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**HOSPITAL NAME**

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