

IT'S YOUR CASE

Species: Canine

Breed: Cocker Spaniel

Sex: Female Neutered

Age: 11 years

Clinical History:

Progressive cough in the past 2 weeks. Coughing has produced white mucus.

Details of study and technical comments: A radiographic study of the thorax is presented for evaluation. The study consists of right lateral and ventrodorsal views.

Diagnostic interpretation:

The cardiac silhouette is severely enlarged: Left atrial dilation as indicated by straightening of the caudal cardiac waist (red arrows) and divergence of the caudal mainstem bronchi . Left ventricular enlargement is indicated by dorsal displacement of the terminal trachea (orange arrows). Right atrial dilation is indicated by rounding of the right cranial cardiac silhouette on the ventrodorsal view (yellow arrow). The left mainstem bronchus is narrow on the lateral view (green arrowheads).

On all views, the pulmonary arteries and veins are poorly delineated. In the right caudal lung lobe they are completely effaced by alveolar pattern, evidenced by an air bronchogram (light blue circle). In the remaining lung fields, there is an unstructured interstitial pattern (dark blue arrows).

The mediastinum and pleural space are unremarkable. The thoracic vertebral column is unremarkable.



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This report is based on the available history and radiographic interpretation only and not on a physical examination of the patient. It must therefore only be interpreted by a currently licensed and registered veterinary surgeon responsible for the care of this patient.





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Conclusions:

Left sided cardiomegaly is consistent with mitral valve insufficiency. The primary aetiology is likely mitral valve degeneration/endocardiosis. Alternative consideration can be given to dilated cardiomyopathy.

Asymmetric but diffusely distributed pulmonary parenchymal changes. Primary consideration is given to cardiogenic pulmonary oedema secondary to left-sided heart failure.

Right atrial dilation is suspected and may be due to tricuspid valve insufficiency (tricuspid valve degeneration) versus pulmonary hypertension. Echocardiography could be considered for further assessment.

Additional comments:

The constellation of left sided cardiomegaly and asymmetric pulmonary oedema is most consistent with leftsided heart failure. Asymmetric pulmonary oedema is common in dogs and is often most noted in the right caudal lung lobe.

LITERATURE:

Diana, A., Guglielmini, C., Pivetta, M., Sanacore, A., Di Tommaso, M., Lord, P. F., & Cipone, M. (2009). Radiographic features of cardiogenic pulmonary edema in dogs with mitral regurgitation: 61 cases (1998– 2007). *Journal of the American Veterinary Medical Association*, *235*(9), 1058-1063.

Chiavegato, D., Borgarelli, M., D'AGNOLO, G. I. N. O., & Santilli, R. A. (2009). Pulmonary hypertension in dogs with mitral regurgitation attributable to myxomatous valve disease. *Veterinary radiology & ultrasound*, *50*(3), 253-258.



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