

IT'S YOUR CASE

Species: Feline Breed: Domestic Shorthair (DSH) Sex: Female Neutered Age: 3 years

Clinical History:

The cat presents with acute onset dyspnea, lethargy, and inappetance.

Anatomic regions: Thorax

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

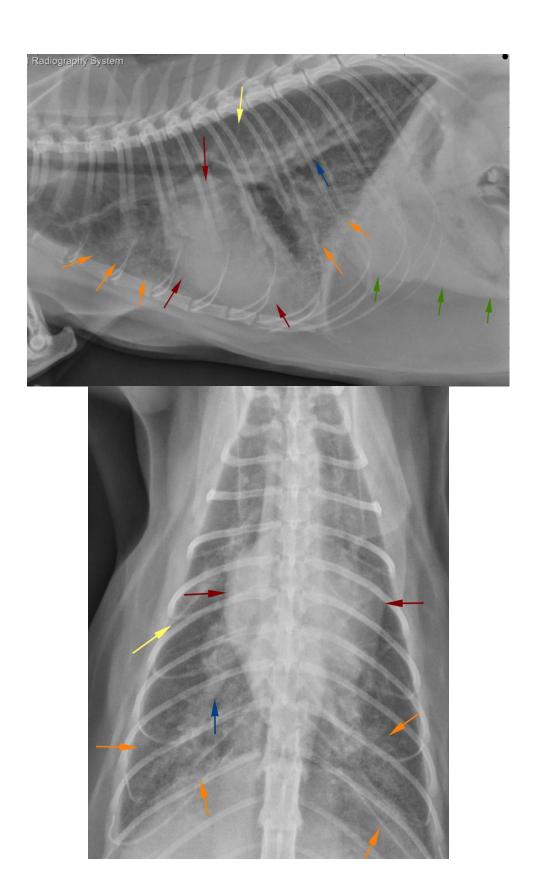
Diagnostic interpretation:

THORAX:

The cardiac silhouette is markedly enlarged (red arrows): On the lateral view, the cardiac silhouette occupies greater than 50% of the height of the thorax. On the ventrodorsal view, there is widening of the cranial cardiac silhouette. The caudal cardiac silhouette is effaced by an alveolar pattern most noted throughout the caudal lung lobes, right cranial and cranial subsegment of left cranial lung lobe (orange arrows). There is pulmonary vascular distention where the vessels are visible (blue arrows). Thin pleural fissure lines are within the right pleural space (yellow arrows).

The trachea and mediastinum are within normal limits. The thoracic vertebral column is unremarkable. Within the cranial abdomen, the hepatic silhouette extends beyond the costal arch (green arrow).







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Conclusions:

- Cardiomegaly. Primary consideration is given to underlying cardiomyopathy (hypertrophic, thyrotoxic versus restrictive or unclassified).
- Patchy, diffuse, alveolar lung pattern. Primary consideration is given to cardiogenic pulmonary oedema with hypervascular pattern.
- Mild pleural fluid.
- Mild hepatomegaly. Equal consideration is given to passive venous congestion or anatomic variation, but hepatopathy could be considered if correlated to clinical findings such as elevated liver enzymes.

Additional comments:

The constellation of these changes can be explained by congestive heart failure. The most common cause in cats is hypertrophic cardiomyopathy, which results in concentric hypertrophy (thickening of the muscular walls). Eventual atrial dilation may be characterised by a change in size/shape of the cardiac silhouette; it has been described as valentine/heart or shield shaped on the ventrodorsal view. However, feline heart disease can be occult radiographically in the early stages and echocardiography is needed for definitive diagnosis. Radiographic features of cardiogenic pulmonary edema in cats are widely variable, ranging from interstitial (patchy or diffuse) to alveolar or even bronchial patterns.

