

What is Your Diagnosis

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Figure 1 Lateral cervico-thoracic radiograph



Figure 2 Ventrordorsal thoracic radiograph

Signalment :

7-year-old male castrated Poodle.

History :

The dog presented for respiratory distress and heavy coughing 2 weeks previously. Dry coughing (Goose honk) was frequently worsened by exercise or excitement. The dog could not lie down without oxygen therapy.

Physical Examination :

The dog responded to gentle pressure on the trachea with more severe cough. The mucous membrane showed pale to bluish colour

Radiographic Examination :

Thoracic and cervical radiographs were taken both lateral and ventrodorsal views

Give your diagnosis and turn to the next page.

Radiographic findings :

The lateral cervico-thoracic radiograph (Fig.1) showed the narrowed trachea at the thoracic inlet portion. The cranial cardiac region showed the bulgy area possibly caused by the enlargement of the main pulmonary artery. The ventrodorsal radiograph (Fig.2) showed the small bulge at the main pulmonary artery area (Pulmonary knob) and mild deviation of thoracic trachea to the right.

Radiographic diagnosis :

Tracheal collapse.

Follow-up :

Fluoroscopy was performed to evaluate of the air-way during inspiration and expiration.

Discussion

Tracheal collapse, commonly seen in small breed dogs such as Poodles, Yorkshire terriers, and Pomeranians, which is caused by a progressive weakening of the tracheal rings. Several dogs with collapsed tracheas do not usually show any symptoms unless the secondary complications such as obesity, anesthesia involving the placement of an endotracheal tube, development of kennel cough, heart enlargement or other respiratory infections have occurred. Some studies reported that tracheal collapse may be related to Cushing's disease and insufficient chondroitin sulfate in their tracheal rings, both of which can weaken the cartilages.

Diagnosis and the degree of collapse are confirmed by comparing x-rays taken at the maximum inhalation and exhalation phases of the respiratory cycle. The trachea can also be examined during breathing by the use of a fluoroscope to confirm the diagnosis because sometimes collapse is only evident during forced expiration of coughing. Moreover, the severity of the problem can also be determined.

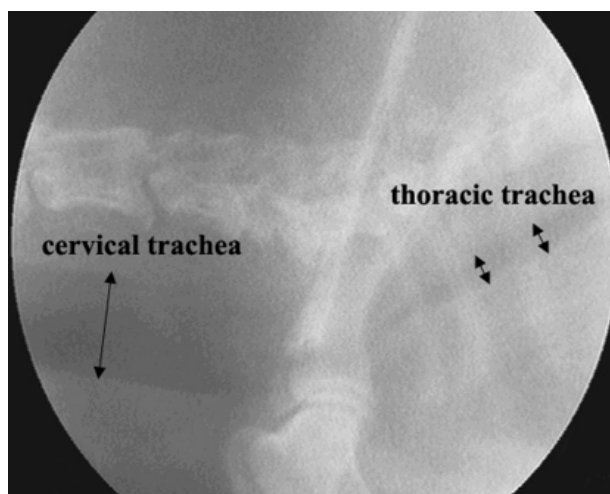


Figure 3 Cervico-thoracic radiograph during fluorographic examination

References

- Kealy J.K. and Mcallister H.M. 2000. The thorax. In: Diagnostic Radiology and Ultrasonography of the Dog and Cat. 3rd ed. W.B Saunderson company. Pennsylvania. 154-158.
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