

Imaging Diagnosis of Lung Lobe Torsion in a Maltese Dog

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Signalment: A 9-year-old, castrated male, weighting 3.2kg Maltese dog was admitted for dyspnea of 3 days duration. The dog had been showed depression and mild anorexia recently and had a history of treatment for coughing a month ago.

Results: On physical examination, the dog showed open mouth breathing and had pale mucous membrane. There were leukocytosis, anemia and mild decrease of total protein and albumin on the blood profiles. Severe asymmetrical pleural effusion was identified on thoracic radiography. Pleural fluid, obtained through thoracocentesis, was serosanguineous and modified transudate with high numbers of neutrophils, lymphocytes, macrophages and RBCs. After removal of the pleural fluid, thoracic radiography revealed increased lobar opacity in right cranial and middle lobe region. There were small air bronchograms and gas bubbles in right middle lobe region. The right middle lobe was isoechoic to parenchymatous tissues with rounded border and had some hyperechoic foci on ultrasonography. There was no blood flow in color Doppler examination. On computed tomography, consolidation of enlarged right middle lobe with vesicular gas pattern was identified. The bronchus to the right middle lobe ended abruptly and there was no contrast enhancement in the right middle lobe. The right cranial and caudal lobes were collapsed and had mild contrast enhancement. Torsion of the right middle lung lobe was diagnosed and lobectomy was performed. The right middle lobe appeared grossly congested and was confirmed to be torted 360°.

Clinical relevance: Lung lobe torsion is a rare condition in small breed dogs, but it is potentially life-threatening. Early diagnosis and adequate therapy is most important thing for improving prognosis. Computed tomography and reformatted multiplanar images are considered critical in making the diagnosis and useful in assessment of position and course of the bronchi.

Key words: lung lobe torsion, dog, radiography, ultrasonography, computed tomography

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