

IMAGING FINDINGS IN A CAT WITH A PULMONARY THROMBOEMBOLISM AND CONCOMITANT FLUDDT AND PYOTHORAX

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INTRODUCTION: Diagnosis of acute pulmonary thromboembolism (PTE) is still a challenge in small animals.^{1,2}

METHODS: A 4-year-old, neutered male European cat was admitted with FLUDDT and treated accordingly. Following a clinical improvement, acute severe dyspnea started four days after hospitalization.

RESULTS:

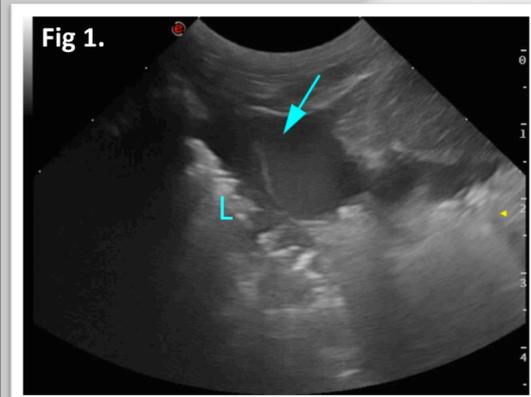


Fig. 1: Thoracic ultrasound revealed severe pleural effusion (blue arrow) and dorsocaudal lobe lung consolidation (L). Thoracocentesis and fluid analysis showed pyothorax. A few hours later, the animal did not improve and developed marked cyanosis.

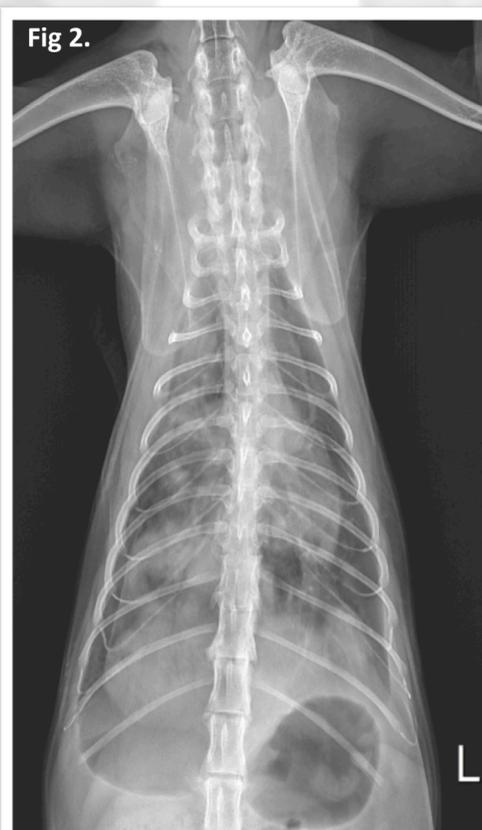


Fig. 2, 3: Dorsoventral and right lateral horizontal beam radiographs showed pneumothorax, a marked alveolar pattern in the cranial, middle and caudal lobes, and severe enlargement of the pulmonary arteries.

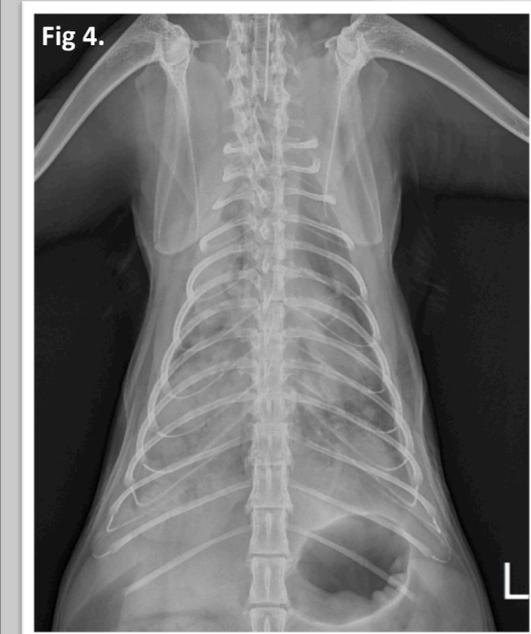


Fig. 4: After draining the air, dorsoventral control radiograph were performed, showing a severe worsening of the alveolar pattern, occupying the entire right hemithorax and left caudal lobe.

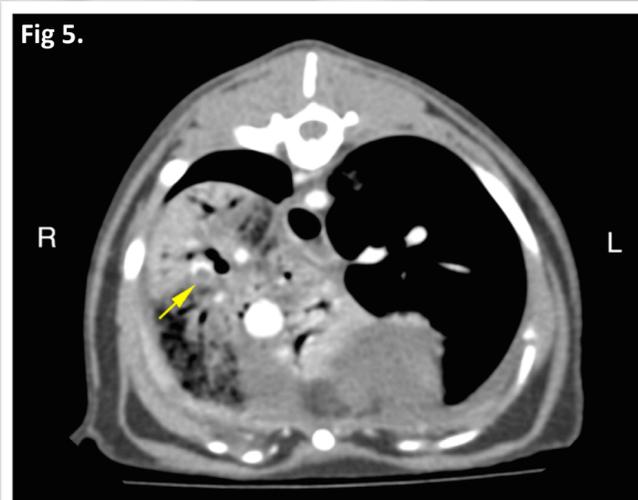
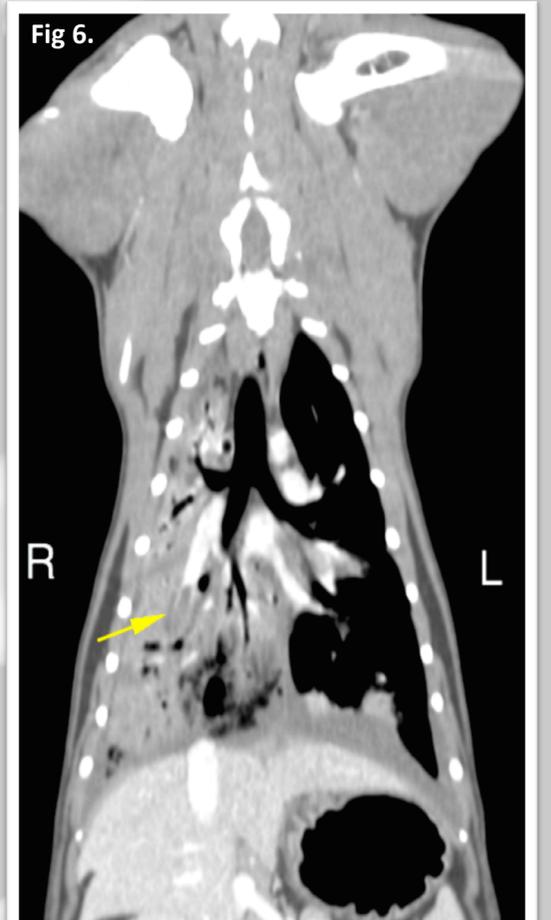


Fig 5, 6: Following suspicion of PTE, a pulmonary angiography Computed Tomographic (CT) scan was carried out. CT images, transverse and dorsal multiplanar reconstructions of the thorax revealed a filling defect compatible with an embolus in the right pulmonary artery (yellow arrow). The animal was euthanised due to a poor prognosis.



DISCUSSION:

The incidence of PTE in cats is unknown; however, it is likely to be underdiagnosed.² Approximately half of the cats with PTE have multiple concomitant pathologies, as in our case.^{1,2,3} Although many patients with PTE present with normal thoracic radiographs, they are indicated in any patient suspected of having PTE.² CT angiography scans are particularly good at detecting main, lobar, or segmental pulmonary arterial thrombi in humans.²

REFERENCES:

- Schermerhorn T., Pemberton J., Kornreich B. Pulmonary Thromboembolism in Cats. J Vet Intern Med 2004; 18: 533-535.
- Goggs R., Benigni L., Luis V., Chan D. Pulmonary Thromboembolism. Journal of Veterinary Emergency and Critical Care 2009; 19 (1): 30-52.
- Whitley NT., Stepien RL. Defaecation syncope and pulmonary thromboembolism in a cat. Aust Vet J 2001; 79: 403-405