

ONLY WITH
VIMAGO
SMALL ANIMAL CASE STUDY REVIEW

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Actinomyces pneumonia and possible secondary eosinophilic bronchopneumopathy

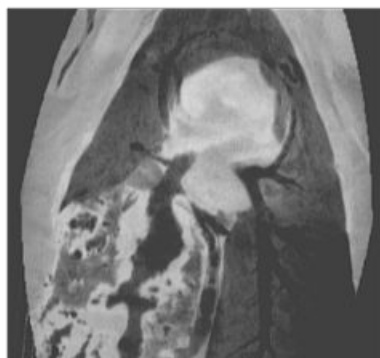


Figure 1

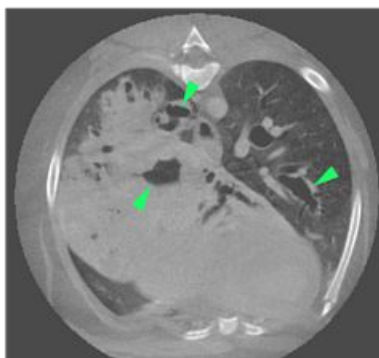


Figure 2

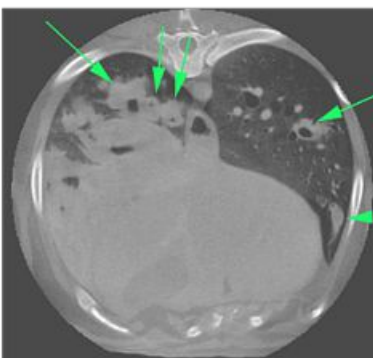


Figure 3



Figure 4

PATIENT

8-year-old male neutered cocker spaniel dog that presented with a 3 year duration history of chronic pneumonia. He had been treated for months with intermittent responses but consistent recrudescence of coughing and malaise. The patient was referred for imaging and possible lung lobectomy.

IMAGE PROTOCOL

A survey and post-i.v. contrast CT was performed of the chest. The contrast dose was 1 ml/lb BW of Iohexol (300mg/ml iodine) contrast media; given as a bolus prior to image initiation.

FINDINGS

The lungs were severely affected in the left caudal and entire right regions. Severe regional, bronchiectasis was seen, especially in the right caudal lobe where the luminal diameter of the bronchus was 18 mm wide (compared to the normal left side; 6mm wide) (FIG 1). That right bronchus had an undulating course to the luminal dilation. Most affected bronchi had a variable soft tissue peribronchial rim surrounding the wall which in severe cases coalesced with surrounded bronchi (FIG 2). Patchy to complete lobar (right accessory) alveolar disease was seen in affect lobes with normal to slightly greater volume than normal. In affected bronchi on the left side, bronchial plugging was seen in the dependent portions (FIG 3). The right and middle tracheobronchial and cranial mediastinal lymph nodes were greatly enlarged (FIG 4).

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IMAGING DIAGNOSIS

Left-sided aggressive tympanic bulla disease with brain involvement: a. Otitis media (or neoplastic infiltration: carcinoma, soft tissue sarcoma) b. Reactive skull periosteal proliferation c. Soft tissue edema (or hemorrhage) Normal right tympanic bullae and ear canal.

FINAL DIAGNOSIS

Atypical pneumonia with bronchial component (peribronchial cuffing, bronchial plug, bronchiectasis) and reactive intra-thoracic adenopathy (Alternatively, primary neoplasia with metastatic adenopathy).

DISCUSSION POINT

This very atypical and severe case is presented as an indication of the Vimago™ veterinary CT scanner's ability to image such a challenging case. The imaging sets were of very high quality demonstrating the bronchial and alveolar components of the disease. Additionally, the contrast-enhanced intrathoracic lymph nodes could be very easily seen and measured for staging purposes. The contrast resolution of the lungs was very good and the spatial resolution of the very small bronchi was excellent. Lung disease has not been imaged in our veterinary patients nearly to the level of human patients, where it is the gold standard for characterization of most intrathoracic diseases. ***The Vimago™ HD CT scanner does an excellent job of imaging simple and extremely complex thoracic cases.***