Computed tomographic features of feline infectious bronchopneumonia

Abstract

Introduction

Lower respiratory tract infection is a common and important condition in dyspnoeic cats with *Mycoplasma* spp, *Bordetella bronchiseptica*, feline herpesvirus (FHV-1), feline calicivirus (FCV) and *Aelurostrongylus abstrusus* being among the most common pathogens.[1] Thoracic computed tomography (CT) in a restraining device (VetCatTrap™) allows fast, high-quality imaging of dyspnoeic conscious or sedated cats in a minimal-stress environment.[2] Aims of this study were to characterise typical CT features of feline bronchopneumonia and to investigate potential correlations between CT features and specific pathogens.

Methods

Institutional archives were searched for thoracic CT studies of cats with bronchopneumonia, confirmed by culture, cytology or PCR. Studies were scored for bronchial and pulmonary abnormalities in different lung areas. Statistical evaluation included frequency distribution of CT features of bronchopneumonia and correlation analysis between single-genus-*Mycoplasma*-pathogen bronchopneumonia (group 1) and mixed-or-single-other-pathogen bronchopneumonia (group 2) regarding their CT features.

Results

Thirty-three cats met the inclusion criteria. CT features included normal (60.9%) and abnormal lung areas (39.1%). Abnormal lung areas were most presented by bronchial wall thickening (31.6%), parenchymal subpleural bands (13%), ground-glass opacity (8.5%), lung collapse (7.5%), consolidation (7.3%), plate-like-alveolar pattern (5.3%) and hyperlucent enlarged lungs (4.3%). For single-genus-*Mycoplasma*-spp-pathogen bronchopneumonia, there was weak correlation with reticulonodular lung pattern (0.303), cavitary nodules (0.268), and broncholithiasis (0.225).

Discussion

Typical CT features of feline bronchopneumonia are generalised bronchial wall thickening and parenchymal changes in a few lung areas. This is different from other species, where parenchymal changes are often seen

more widespread.[3] Single-genus-*Mycoplasma*-bronchopneumonia is not significantly different from other types of bronchopneumonia.

References

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