

Feline Bronchorrhea: A Retrospective Study of 18 Cases (2012-2017)

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Chronic pulmonary disease in cats that exhibit rattling sounds and airway hypersecretion through bronchoscopy is often experienced in respiratory clinic, however clinical information of this disease is limited. This feline disease is comparable to human bronchorrhea. This study aimed to describe clinical features of feline bronchorrhea. Medical records of 18 cats with over 1-month episodes of intermittent rattling, moist cough, respiratory efforts, pulmonary infiltrates or interstitial pattern on chest X-ray, and airway hypersecretion diagnosed with bronchoscopy between 2012 and 2017 were reviewed. Survival time and quality of life during the follow-up period (good/fair/poor) among therapies were compared using the chi-square test. A P-value < 0.05 was considered statistically significant.

In this study, Russian blue (7/18) and American Shorthair (5/18) cats were predisposed. The median age was 8.5 (6–13) years. In addition, rattling on admission (11/18), infrequent moist cough (3–10 events/day, 8/18), rapid and labored breathing (13/18), increased breath sounds on chest auscultation (12/18), mild hypoxemia (mean arterial partial pressure of oxygen: 69.5 mmHg) were representative. Chest X-ray densities were predominant on the right posterior lung fields (11/18), including diffuse patchy pulmonary infiltrates (6/18), pulmonary hyperinflation (7/18), and broncholithiasis (4/18). Three of six cats that were undergone chest computed tomography (CT) revealed consolidation within multiple cysts (< 3.0 cm in diameter). One cat revealed an enlargement of thoracic lymph nodes on CT and died 2 days after the diagnosis. In all cats, bronchoscopy revealed marked airway secretion (watery: 16; thick: 2).

Transbronchial lung biopsy samples in eight cats were malignant in two and benign in six. Bronchoalveolar fluid cytology in nine cats revealed mainly foamy macrophages (median: 67.5%), with elevated neutrophils (median: 22.3%). Bacterial cultures in airway samples were negative in 16, insignificant in 2, and positive in none of the cats. Lobectomies including the primary lesions in five selected cats revealed interstitial pneumonia in two, bronchioloalveolar carcinoma in two, and adenocarcinoma in one. The 60-day survival rate was 72.2%. The median survival time (MST) was 374 days in 16 cats that were prescribed feasible combined therapies, whereas 9 days in 2 cats prescribed no therapy. The MST in cats (n = 5) received lobectomy was significantly longer than that in cats (n = 13) not received lobectomy (596 vs. 222 days; P < 0.05). Furthermore, “Age on admission < 10 years” and “no enlargement of thoracic lymph node on CT” significantly correlated with good or fair QOL (P < 0.05).

Feline bronchorrhea has distinguishing clinical characteristics with relatively poor prognosis. Early identification, initiation of even one feasible therapy, and, if possible, lobectomy could enhance the prognosis. The pathology and etiology of the disease needs to be explored concurrently.