Clinicopathologic and radiographic features in 40 cats diagnosed with pulmonary and cutaneous Rhodococcus equi infection (2012-2018)

ABSTRACT

Objectives This retrospective study aimed to describe clinical manifestations, diagnostic options, radiological features, therapeutic plans and outcomes for cats infected with Rhodococcus equi.

Methods Forty cats aged between 2 months and 11 years old (median 6 months) that were definitively diagnosed with rhodococcosis between 2012 and 2018 were recruited in this study. Medical records were reviewed for information on signalment, history, clinical presentation, diagnostic testing, treatment plans and clinical outcomes.

Results Of the 40 cats, 36 showed the pulmonary form of the disease, with 35 (87.5%) presenting with dyspnoea, while four cats presented with only cutaneous lesions. Mean body temperature was 38.7±0.2°C. Dyspnoea was noted in 87.5% of the cats. Leukocytosis (58.3%) with band neutrophilia (83.3%), monocytosis (58.3%) and thrombocytopenia (55.5%) were prominent findings in the haematology reports. Hyperproteinaemia (61.1%) with hypoalbuminaemia (22.2%) and hyperglobulinaemia (63.8%) with a low albumin:globulin ratio (38.9%) were prominent features of blood biochemistry reports. An alveolar–interstitial pattern was noted in 75% of prethoracocentesis radiographs. Pleural effusion, hepatomegaly, thoracic lymphadenopathy and atelectasis of any lung lobe were seen in 88.9%, 75%, 41.7% and 36.1% of cats, respectively. Overall, the mortality rate was 67.5% in both forms.

Conclusions and relevance Clinicians should be aware that feline rhodococcosis manifests as a pulmonary disease at a much higher rate than previously reported. Further studies are required to address the epidemiology, pathophysiology, disease management and prognosis of feline rhodococcosis. The role of immunosuppression as a predisposing factor in feline rhodococcosis requires further investigation.

Keyword: Rhodococcus equi; Pulmonary; Cutaneous; Alveolar–interstitial