Clinical evaluation and endoscopic classification of bronchomalacia in dogs.


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Article Abstract

BACKGROUND: Little information is available about the association between bronchomalacia and historical or clinicopathologic data. Also, studies applying an endoscopic classification scheme that differentiates between static and dynamic bronchial collapse and based on a scoring system are lacking. OBJECTIVES: To describe the clinical presentation of bronchomalacia in dogs, to classify endoscopic findings, and to evaluate associations among historical, clinicopathologic data, and endoscopic findings. ANIMALS: Fifty-nine client-owned dogs with an endoscopic diagnosis of bronchomalacia. METHODS: In this retrospective study, medical records were analyzed and video documentation was reviewed to assign a score to endoscopic findings. Univariate analysis was performed on categorical variables organized in contingency tables, and a stepwise logistic regression model was used for multivariate analysis. RESULTS: Of the 59 dogs included in the study, 2 were affected by static bronchial collapse (SBC), 35 by dynamic bronchial collapse (DBC), and 22 by both SBC and DBC. The association between SBC and DBC was more frequently seen in the dogs with higher body weight, pulmonary hypertension, a bronchial type of radiographic pattern, and nodularity at endoscopic examination. Thirty-one dogs were presented with tracheomalacia and bronchomalacia; an association emerged between these concurrent disorders in dogs living indoors. Multivariate analysis of the endoscopic scores showed a correlation between DBC severity and cough duration. CONCLUSION AND CLINICAL IMPORTANCE: Results of this study provide evidence for 2 different types of bronchial collapse. Endoscopic scoring scheme has proved to be promising in the bronchomalacia classification, although further evaluation of its applicability in larger canine populations is needed.

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