Medical Management of Tracheal Collapse in Dogs, a Retrospective Study

Katherine Clarke, Ian Battersby, Ronan Doyle

Davies Veterinary Specialists, Hitchin, United Kingdom

OBJECTIVES

Retrospective assessment of medical management of tracheal collapse in dogs.

METHODS

Records of dogs diagnosed with tracheal collapse between 2013–2018 were reviewed. An owner questionnaire provided follow-up information.

RESULTS

Thirty-two dogs with tracheal collapse were identified. Clinical signs included coughing (n = 27), goose-honk cough (n = 6), dyspnoea (n = 7) and syncope/collapse (n = 2).

Bronchioalveolar lavage was performed in 25/32 cases; non-diagnostic (n = 1), unremarkable (n = 5), inflammatory (n = 19); neutrophilic (8/25), neutrophilic/eosinophilic (3/25), mixed (6/25), eosinophilic (1/25) and lymphocytic (1/25). Culture was positive in six cases and seven had evidence of *Mycoplasma canis* infection. Concurrent bronchial collapse was diagnosed in 11 cases, laryngeal collapse in eight cases. Tracheal collapse was graded with bronchoscopy in 23 cases (grade 1, n = 1, grade 2, n = 13, grade 3, n = 6, grade 4, n = 3).

Owner questionnaires were sent via email; fifteen replies obtained. Treatments included inhaled therapy (13/15), weight management (3/15), oral glucocorticoids (5/15) and antibiotics (2/15). When utilised, inhalers were mostly well-tolerated (7/13). Medical treatments were successful at controlling clinical signs in nine cases (100% received inhaled therapy), and unsuccessful in 5 cases, (60% received inhaled treatments). At the time of writing eight cases are alive, four have died as a consequence of their respiratory disease.

STATEMENT (CONCLUSIONS)

Concurrent airway inflammation is present in the majority of dogs with tracheal collapse in this study. Inhalation therapy can be used in some cases to control clinical signs. A longer-term prospective study is required to evaluate this further.

Association between computed tomography findings and short-term outcome in UK dogs with pyothorax

Aldara Eiras¹, Anna Kerryne Frykfors²,

Emilie Hanot¹, Giacomo Stanzani³,

Jessica Florey¹, Rachel Miller¹,

Francisco Llabres-Diaz²

1 Dick White Referrals, Newmarket, United Kingdom

2 Queen Mother Hospital for Small Animals, Royal Veterinary College, University of London, North Mymms, United Kingdom

3 Bloomsbury Institute for Intensive Care Medicine, University College London, London, United Kingdom

OBJECTIVES

To describe a large UK population of dogs with pyothorax and assess whether computed tomography (CT) findings provide information regarding outcome.

METHODS

Retrospective study performed in two UK referral centres (2010–2019). Medical records of dogs diagnosed with

pyothorax were reviewed and CT images were re-evaluated by a single reviewer. Dogs were included if pre- and post-contrast CT was performed within 48h of presentation. The association between CT findings and in-hospital mortality was assessed using Fischer's exact test.

RESULTS

One hundred and one dogs met the inclusion criteria (53 males, 48 females). Median age was 44 months (range 4–171). CT findings of pleural effusion, pleural thickening and pannus were present in 99%, 84%, and 67% of cases, respectively. There was parenchymal involvement with pneumonia or abscessation in 7% and 14% of cases, respectively. Mediastinal involvement was seen as effusion (29%) or abscessation (8%). Foreign material (9%) or tracts (7%) were uncommon. None of the evaluated CT findings were significantly associated with outcome. Seventy-two dogs underwent surgery and 29 were medically managed. Overall mortality was 15% (n = 15/101). Median length of hospitalisation for survivors and non-survivors was 6 days (range 1–26) and 1 day (range 0–12), respectively. All 7 non-survivors that were surgically managed died within 48h of surgery.

STATEMENT (CONCLUSIONS)

To the authors' knowledge, this is the largest cohort of pyothorax dogs described in the literature. In this population, no CT finding was associated with short-term outcome and caution should be used when using CT to inform prognosis in pyothorax.