Oral presentations

Rhythm disturbances in dogs and cats with congestive heart failure and their impact on prognosis

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OBJECTIVES

Do rhythm disturbances in dogs and cats with congestive heart failure contribute to a poorer prognosis?

METHODS

This study retrospectively reviewed 101 cases of congestive heart failure, 47 dogs and 54 cats and the presence or absence of a concurrent rhythm disturbance at diagnosis was determined. The nature of rhythm disturbance

and the underlying cause for the heart failure were also recorded. The data was analysed using Microsoft excel and SPSS statistics. The median survival time was calculated for animals with and without a rhythm disturbance and Mann-Whitney U and Log-Rank tests were used to evaluate any significant difference in survival time.

RESULTS

Rhythm disturbances were more prevalent in dogs with congestive heart failure, with 60% having a concurrent rhythm disturbance compared to 46% of cats. Supraventricular dysrhythmias, in particular atrial fibrillation, were most common and accounted for 68% of all rhythm disturbances in dogs, more variation was shown in cats. The median survival time for dogs with a rhythm disturbance was 84 days compared to 203 days for those without, for cats these were 39 and 41 days respectively. In dogs, a significant difference in survival time after diagnosis with congestive heart failure was identified between the two groups ($U = 150$, $p = 0.017$ /Log-Rank, $p = 0.030$). In cats, no significant difference was detected ($U = 347$, $p = 0.792$ /Log-Rank, $p = 0.323$).

STATEMENT (CONCLUSIONS)

This study suggests that rhythm disturbances complicating congestive heart failure contribute to a poorer prognosis in dogs but are less detrimental in cats.

A retrospective study into the association between survival time and markers of renal dysfunction and heart failure severity in dogs with acute congestive heart failure

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OBJECTIVES

To evaluate markers of renal dysfunction, heart failure severity and treatment versus survival in dogs with acute congestive heart failure.

METHODS

Retrospective study of dogs admitted with congestive heart failure between October 2006 and February 2018. The effect of disease duration, cause of heart failure, atrial fibrillation, furosemide dose, blood pressure, urea, creatinine, sodium, potassium, lactate, phosphorus, respiratory rate, dobutamine administration, and pimobendan administration on survival from admission were analysed with Kaplan Meier graphs, and log-rank analysis.

RESULTS

83 dogs met the inclusion criteria (36 female, 47 male). Reduced survival time was associated with chronic disease ($p = 0.049$); blood pressure ≤ 112.5 mm Hg ($p = 0.0002$); mean furosemide dose > 8 mg/kg ($p = 0.043$); mean potassium level ≤ 3.77 mmol/l ($p = 0.004$); dobutamine administration ($p = 0.001$); and mean respiratory rate ≤ 48 ($p = 0.039$). Survival time was increased with plasma urea between 13.1–18.78 mmol/l ($p = 0.016$); mean sodium concentration 145.7–150.25 mmol/l ($p = 0.027$); and mean phosphorus concentration ≤ 1.79 mmol/l ($p = 0.021$).

STATEMENT (CONCLUSIONS)

We found no association between creatinine concentrations and survival, although survival was worse for both low and high urea concentrations. Only higher

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