

ORAL PRESENTATION

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Serum concentrations of C-reactive protein (CRP) in lean and overweight dogs

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Introduction

Obesity in dogs has been associated with both increased and decreased blood C-reactive protein (CRP) concentrations.

Objectives

To compare serum CRP concentrations between lean and overweight healthy dogs, and to investigate if results are affected by how dogs are classified as healthy; by owner interview only, or in combination with physical examination and laboratory testing.

Methods

28 adult male intact Labrador Retrievers, reported to be healthy by their owners, were included. 12 dogs were categorized as lean (body condition score, BCS, ≤ 5) and 16 as overweight (BCS ≥ 6). Physical examination and laboratory testing were performed. Serum CRP concentrations were measured with a canine-specific high-sensitivity CRP assay (Gentian hsCRP). Mann Whitney U test ($\alpha=0.05$) was used for data analyses, performed before and after exclusion of dogs with any abnormality detected.

Results

The median (range) CRP concentration was 1.0 (<0.5-10.0) mg/l in lean and 1.1 (0.5-6.4) mg/l in overweight dogs ($p=0.87$). Minor abnormalities were found at physical examination in 11 dogs, and increased alanine aminotransferase (ALAT) values were detected in 2 dogs. After excluding these dogs, the median CRP concentrations in lean ($n=4$) and overweight ($n=11$) dogs were 0.6

(<0.5-1.4) mg/l and 1.1 (0.5-6.4) mg/l, respectively ($p=0.17$).

Conclusions

CRP concentrations did not differ significantly between lean and overweight dogs. Physical examination revealed minor abnormalities in over 1/3 of the dogs, despite owners' assessment as healthy. To avoid abnormalities that could affect results when studying CRP in canine obesity, clinical assessment of health status is important.

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