Serum amyloid A protein as a marker of inflammation in cats with *Aelurostrongylus abstrusus*

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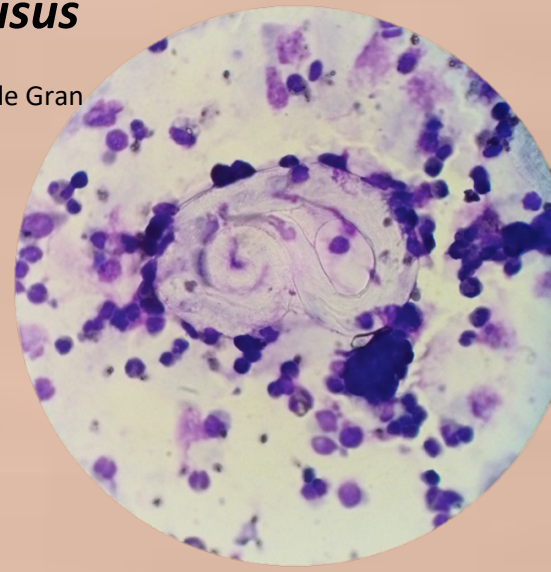
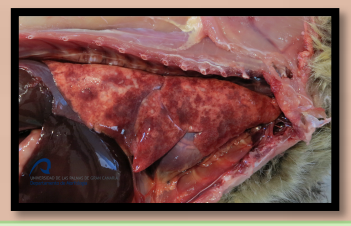


Introduction

Cardiopulmonary nematodes are emerging parasites in the feline species in Europe. Aelurostrongylosis (*Aelurostrongylus abstrusus*) is characterized by inflammatory cell infiltrates in the bronchi and the lung parenchyma of the infected cats. Serum amyloid A (SAA) is considered a major acute phase protein (APP) in the cat, increasing few hours after the inflammatory stimulus; also, remains elevated for as long as the inflammation persists and has shown utility as a prognostic indicator, but its usefulness in aelurostrongylosis has never been evaluated.

Objectives

The objective was to determine the usefulness of SAA as a marker of lung inflammation in cats infected by *A. abstrusus.*



Methods

5 healthy cats and 6 cats infected by *A. abstrusus* participated. All infected cats were symptomatic, showing dyspnea and/or cough. Diagnosis was based on larvae detection in the fecal Baermann test. The VCHECK immunochromatography analyzer was used for the determination of SAA in fresh serum collected within 2 hours before analysis. Results were analyzed by using SPSS Base 25.0 software.

Results

Concentrations of SAA were significantly higher in infected vs healthy cats (18.26±12.82 mg/L vs 6,64±0,74 mg/L). Furthermore, SAA concentrations were above reference values in all infected cats.

Conclusions

Pulmonary inflammation caused by *A. abstrusus* may cause the increase in SAA. The use of this APP may be useful in the diagnosis and stratification of feline aelurostrongylosis in cats showing respiratory distress. These are preliminary results and further studies are required to confirm this hypothesis.

1. Tamamoto T, Ohno K, Takahashi M, Nakashima K, Fujino Y, Tsujimoto H. Serum amyloid A as a prognostic marker in cats with various diseases. Vet Diagn Invest. 2013 May; 25(3):428-32.

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