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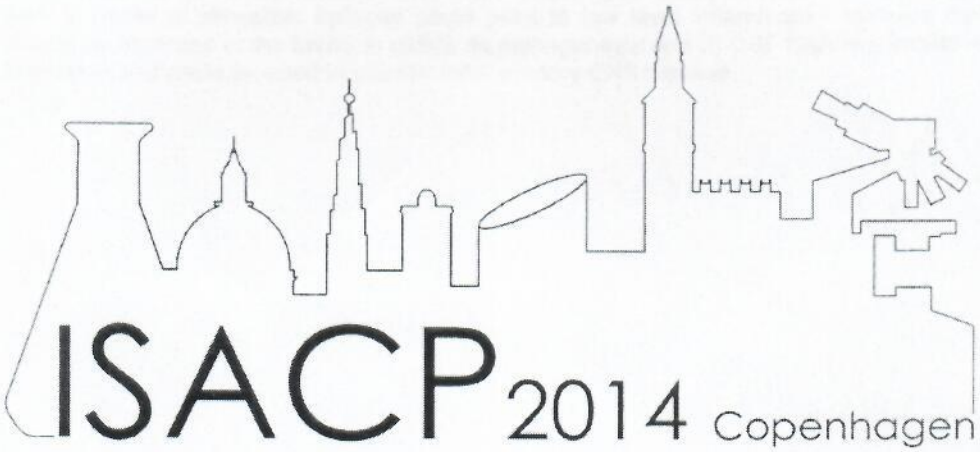

SAA CONCENTRATION IN THE CSF OF DOGS WITH DIFFERENT NEUROLOGIC DISORDERS

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In this preliminary study, serum amyloid A (SAA) was measured in the cerebrospinal fluid (CSF) of dogs with idiopathic epilepsy (n=3), distemper (n=4) and necrotizing meningoencephalitis - NME (n=2) i.e. non inflammatory, viral and idiopathic inflammatory disease of central nervous system, in aim to test its usefulness as a biomarker of neurologic diseases. Control group (n=3) consisted of dogs without history of neurologic diseases, euthanized due to joint problems. Diagnosis of neurological diseases has been done on clinical and neurological examination, microbiology, serology and histopathology. CSF was collected at presentation from cerebellomedullary cistern, and physical characteristics, cytology analysis, protein content, lactate-dehydrogenase (LDH) and creatin-kinase (CK) activity was determined using standard laboratory procedures. SAA was determined using ELISA test kit (Tridelta, Irland). Dogs with idiopathic epilepsy had three times higher, while NME and distemper positive dogs had 15 to 400 times (median=200 times) higher SAA concentration than control group of dogs. No difference between SAA concentrations was found between distemper and NME CSF samples. Protein content and cell number were not related to SAA concentration, while LDH and CK increased 10 times above referent levels only in one case of NME. Despite small number of samples, we could formulate to work hypothesis: 1) modestly increased level of CSF SAA in cases of idiopathic epilepsy could point to low level inflammatory stimulus that should be exploited in the future to define its pathogenesis and 2) CSF SAA is a sensitive biomarker and could be used to monitor inflammatory CNS disease.