EOSINOPHILIC MENINGITIS ASSOCIATED WITH ANGIOSTRONGYLIASIS: CLINICAL FEATURES, LABORATORY INVESTIGATIONS AND SPECIFIC DIAGNOSTIC IgG AND IgG SUBCLASS ANTIBODIES IN CEREBROSPINAL FLUID

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Abstract. Eosinophilic meningitis (EOM) associated angiostrongyliasis mostly induced by the nematode *Angiostrongylus cantonensis*, is a common disease with worldwide prevalence. Heavy infections can lead to chronic disabling disease and even death. This study was conducted to shed light on the overall specific IgG antibody response as well as the specific IgG antibody subclass responses in cerebrospinal fluid (CSF) of patients with EOM. Fifteen patients with EOM associated with angiostrongyliasis were included in the study. Sera were screened by immunoblotting for the presence of IgG antibody to the 29 kDa *A. cantonensis* antigenic polypeptide. CSF was examined by ELISA for the presence of specific IgG and IgG subclass antibodies. Patients presented with headache (100%), neck stiffness (20%), fever (40%), nausea (87%), vomiting (73%), paresthesia (7%), and muscle weakness (7%). Seven of 15 (47%) patients showed peripheral blood eosinophilia and all patients presented with eosinophils in CSF. A sensitivity of 80 % was obtained by combining the diagnostic values of immunoblotting in sera and IgG and IgG subclasses-based ELISA in CSF. The combination of a history of eating raw or semi-cooked infected foods, clinical features, complete blood count, differential cell counts, CSF profiles, and serum and CSF antibodies to *A. cantonensis* can be used to increase the sensitivity for the diagnosis of human angiostrongyliasis.