

## **CEREBROVASCULAR MANIFESTATIONS OF TOXOCARIASIS**

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Human toxocariasis is a well-known dog-soil mediated parasitic disease in children and rarely in adults. Neurological manifestations described up to day are numerous, from hyperactivity syndrome in children to myelitis, encephalitis, epilepsy, but cerebrovascular manifestations are not yet defined.

We reviewed three cases of neurologic involvement in toxocariasis with cerebrovascular accidents. The first case is child aged 4 years with transient hemiparesis, second case is child aged 12 years with thrombosis of cerebral venous sinuses, but three years after developed epilepsy. Third case is an adult with stroke. MRI described neurological lesions in child aged 12 and in adult patient. Children have blood eosinophilia too. All were serologically positive on toxocariasis by indirect immunofluorescent assay, ELISA and Western-blot, and successful treated with albendazole. As no consensus about therapy of neurotoxocariasis exists, we used intermittent albendazole therapy. Patients were treated with 15 mg per kg daily in two cycles of 28 days and a two-week pause between them. This treatment was able to reduced eosinophilia on normal, and antibody titer to undetected value in period of one to two years during patient monitoring.

Based on our experiences, experiments on animals and literature data, we concluded that pathological mechanisms of neurotoxocariasis are cerebrovascular accident as the first manifestation, continuity with long-standing free larval migration through nervous tissue with various symptoms, and next, granuloma formation with possible focal neurological manifestations.