Immunologic Aspects of Topiramate Treatment in West Syndrome Patients

LP Zou, MH Zhang, N Zhang, SA Song, E Mix

Objective: To explore the regulatory effect of topiramate on immunological functions in patients with West syndrome (WS). Methods: Flow cytometric measurement of the proportion of lymphocyte subsets in peripheral blood and nephelometric measurement of the immunoglobulins IgG, IgM and IgA in the serum of 8 patients with WS and of 25 normal healthy infants before and after topiramate treatment. Results: CD4+ T cells and serum levels of IgG were increased in untreated WS patients and normalized after topiramate treatment. In contrast, natural killer cells were decreased in untreated WS patients, but increased to control levels by topiramate treatment. B cells and serum IgA levels were decreased by topiramate treatment. No significant changes were seen in CD8+ T cells and IgM serum levels of WS patients neither in comparison to controls nor in response to topiramate treatment. Conclusions: Topiramate normalizes altered immunological functions of patients with WS. (HK J Paediatr (new series) 2003;8:31-34)

Key words: Epilepsy; Immunological function; Topiramate; West syndrome