Evaluation of ten prognostic factors affecting the outcome of West syndrome

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## Abstract

The aim of this study is to assess the seizure and developmental outcome and to determine the prognostic factors affecting the outcome of West syndrome in an etiologically well-defined large cohort. Demographic features, treatment modalities, etiology, seizure and developmental outcome of 216 cases with West syndrome were recorded retrospectively. Ten prognostic factors possibly affecting the outcome of West syndrome including (1) gender, (2) age at the onset (3) presence of seizures prior to spasms, (4) presence of asymmetric spasm, (5) presence of abnormal neurological signs, (6) treatment lag, (7) etiology, (8) drug chosen as the initial treatment, (9) response to initial treatment regardless of the kind, (10) development of other seizure types after spasms were evaluated in terms of seizure and developmental outcome. Twelve percent of the cases were developmentally normal at the end of 2-year follow-up. Ongoing seizures requiring antiepileptic drug medication at the last follow-up were noted in 90 % of the cases. Hypoxia (29 %), metabolic disorders (11 %), infectious diseases (9 %) and cerebral developmental disorders (8 %) were the most frequent etiological factors. Five of the ten prognostic factors (presence of seizures prior to spasms, presence of abnormal neurological signs, response to initial treatment regardless of the kind, etiology and development of other seizure types after spasms) were found to be statistically significant prognostic factors predicting the outcome. In conclusion, West syndrome is still a catastrophic epileptic encephalopathy. Preventable causes still constitute a substantial portion of the etiological causes of West syndrome. Therefore, the prevention of avoidable causes is at least as important as the treatment.