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A Case of West Syndrome Associated with Neonatal Hypoglycemic Brain Injury

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Abstract：We herein report a 9–month–old male with West syndrome associated with neonatal hypoglycemic brain injury. We describe his MRI and EEG findings since the neonatal period. The clinical features show that the patient was born from a mother with toxemia at term. One day after birth, he suffered from neonatal seizures and intractable hypoglycemia（＜10 mg/dl), caused by hyperinsulinemia. It took more than 12 hours to normalize his blood glucose level. From birth to the age of 9 months, he developed psychomotor retardation with visual disturbances. After that, he suffered from tonic spasms which appeared daily in a series. When the patient was two weeks old, MRI showed white matter T2 prolongation of the bilateral parieto–occipital lobes. An EEG showed hypsarrhythmia with occipital paroxysms. Clonazepam combined with Zonisamide was effective for the tonic spasms and improved his psychomotor development. However epileptic seizures increased after reaching one year of age and his EEG findings worsened. His family did not want ACTH therapy, so we added Gabapentin to his previous medication. At two years of age, the patient has left severe psychomotor retardation, though his clinical seizures have decreased. This study indicates that severe neonatal hypoglycemia can cause symptomatic West syndrome.

Key words：**Hypoglycemia, Neonate, West syndrome, Parieto–occipital lesion**