

Sleep disorders in post-stroke children

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Abstract

Background: Current studies highlight the importance of sleep in brain tissue recovery and the generation of new neural connections after a stroke. The aim of the study is to identify sleep disorders in post-stroke children and their impact on the results of neurological recovery.

Material and methods: 53 children (31 boys) aged 3 – 12 years post-stroke (after a period > 6 months). Sleep disorders were assessed using the *Sleep Disturbance Scale for Children (SDSC)* and neurological deficiencies – *Pediatric Stroke Outcome Measure (PSOM)*. The SPSS program was used for statistical analysis.

Results: According to the SDSC standardized T score, 73.6% of children had poor sleep quality and 26.4% had good sleep quality. In the group of children with sleep disorders, 59% had disorders of initiation and maintenance of sleep, 28.2% – excessive daytime sleepiness, 20.5% – sleep breathing disorders. According to the scores accumulated by the PSOM assessment, 83% of children had moderate or severe deficits and 17% had good results. The Spearman correlation coefficient between SDSC and PSOM score indicated a strong positive correlation (Spearman's rho correlation 0.82 ($p < 0.001$), and strongly correlates with neurological deficits.

Conclusions: Sleep disorders are common in post-stroke children. In our study, 73.6% of children presented sleep disorders, which strongly correlated with neurological deficits. Management of post-stroke sleep disorders may improve neurological and long-term recovery outcomes. Awareness of the importance of sleep for post-stroke recovery should be disseminated to medical and non-medical caregivers of these patients.

Key words: stroke, children, disorders, sleep, recovery.

Multiple ischemic stroke syndrome mimicking a tick-bite encephalitis: a case report

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Abstract

Background: Despite the advanced diagnostic procedures nowadays, doctors remain frequently challenged with difficulties in diagnosis establishment. Some features of the patient's history mislead even an experienced doctor.

Material and methods: case report of atypical stroke.

Results: A case of a 66-year-old man admitted to the Institute of Neurology and Neurosurgery from a regional hospital with severe headache, fever 38.5 C, vertigo, paresis in the left limbs, dysarthria. The patient periodically presented blood pressure spikes and generalized shivers, which hardly responded to hypotensive and antipyretic drugs.

Because of the high fever, history of tick bite 2 months before the admission, absence of pathological imaging on the CT scan on admission, the patient was primarily diagnosed with Encephalitis. Lumbar puncture, blood cultures and antibiogram were performed with no pathological findings. The MRI performed on the third day after admission showed multiple sub-acute ischemic zones. Echo-CG discovered an unclear formation in the projection of the anterior mitral valve, myxoma suspected. Patient was stabilized in Neurology Department and afterwards transferred to the Cardiology Department where he was diagnosed with infectious endocarditis.

Conclusions: Concomitant ischemic strokes should induce the suspicion of the underlying cardiac organic pathology. Echocardiography shall be considered for all patients with stroke; even if other risk factors are depicted. In order to prevent future strokes it is important to take all the risk factors under control.

Key words: stroke, endocarditis, encephalitis.