

MELATONIN SECRETION IN REFRACTORY EPILEPSY IN CHILDREN

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Background: The aim of the study was to assess diurnal melatonin secretion in children with refractory epilepsy (N=74) as compared to children without epileptic seizures (N=37) and making a comparison of melatonin secretion in children with focal and generalized refractory epilepsy.

Material and methods: In the studied group delimited were 4 subgroups: children with focal symptomatic epilepsy, focal cryptogenic epilepsy, generalized symptomatic epilepsy, generalized cryptogenic epilepsy. The melatonin level was measured every three hours using the RIA method.

Results: Analysis of diurnal melatonin secretion indicated a lower level of the hormone in patients with refractory epilepsy. The daily rhythm of melatonin secretion in studied group was maintained, with a peak shift of melatonin secretion especially visible in the subgroup with generalized symptomatic refractory epilepsy in the age group between 6th month and 3 years of age.

Conclusion: The hypothesis may be formed that a lowered level of melatonin in the study group in relation to the comparison group is most probably the consequence of antiepileptic drugs used.