Russkii Zhunal Detskoi Nevrologii 2017 vol.12 N3, pages 44-50

Comparative analysis of therapy outcomes in patients with west syndrome receiving tetracosactide and other antiepileptic drugs

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Abstract

Objective: a retrospective assessment of short-term and long-term results of combined therapy with the inclusion of tetracosactide in comparison with other antiepileptic drugs (AED) in West syndrome. Materials and methods. The research covered 150 children with confirmed West syndrome treated at Pediatic Clinical Hospital No. 8 (Kazan, Russia) in 2000-2015. The age of children at the time of research was 4.0-14.5 years. The risk ratio (RR) and their confidence intervals (CIs) were calculated using RevMan 5.0 Software (http://community.cochrane.org). Differences for $p < 0.05$ were considered valid. Results and discussion. The children with West syndrome were divided into 2 groups: 1 st group included 90 children who received tetracosactide in combination with other AED, 2 nd group included 60 children who received any variants of AED excluding tetracosactide. Children in both groups were comparable in age, sex, neurological status and severity of their disease. After 2 weeks from the start of treatment, there were more patients with complete control of seizures in 1 st group (who used tetracosactide) than in 2 nd group (without tetracosactide): 68 of 90 (76 %) patients in 1 st group, 1 of 60 (2 %) patients - in 2 nd group, RR 45.33, 95 % CI 6.47-317.71, $p = 0.0001$. After 2 months and 6 months the results were the following: 69 of 90 (77 %) patients in 1 st group, 13 of 60 (22 %) patients in 2 nd group, RR 3.54, 95 % CI 2.16-5.80, $p < 0.00001$; 69 of 90 (77 %) patients in 1 st group, 36 of 60 (60 %) patients in 2 nd group; RR 1.28, 95 % CI 1.01-1.62, $p = 0.04$ respectively. Long-term results of treatment (favorable outcome - complete clinical remission during 3 years or more) did not differ significantly in both groups: 59 of 90 (66 %) patients in 1 st group and 37 of 60 (61,6 %) patients in 2 nd group. For long-term outcomes RR 1.12, 95 % CI 0.88-1.42, $p = 0.37$. Conclusions. The effectiveness of tetracosactide (favorable outcome - complete absence of seizures) with short-term observation (not less than 6 months) is higher in comparison with other AED in the absence of difference in safety. The long-term results of West syndrome treatment (with observation for 3 years or more) in children who received tetracosactide and in children who received other AED are comparable.

http://dx.doi.org/10.17650/2073-8803-2017-12-3-44-50

Keywords

Antiepileptic drugs, Tetracosactide, West syndrome

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