

Abstract

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Title: Epilepsy in children in the Bruntál district - experience of pharmaceutical treatment
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Objective: The first aim of this thesis is to evaluate epilepsy treatment of children in the Bruntál district and compare it to epilepsy treatment guidelines. The second aim is to communicate recommendations for treatments using multiple medications. The third aim is to compare the epilepsy treatment of children to the treatment of adults as evaluated in the author's master's thesis.

Methods: Patients 18 years and younger with focal and generalized epilepsy treated with pharmacotherapy between 1993 and 2015 in the Bruntál district (94,573 inhabitants) were included in the retrospective study. The endpoint for successful treatment was the elimination of epileptic seizures while minimizing side effects and preserving cognitive functions.

Main findings: The most frequent monotherapy was valproate. The most frequent combined therapy included valproate and carbamazepine, less frequent were valproate and lamotrigin, and the combination of valproate and levetiracetam. There was no systematic use of three medications observed in the study. Topiramate was the most frequent substance added to combination as a third medication.

Conclusion: The most frequent monotherapy observed was valproate, in line with guidelines for epilepsy treatment. Given that no therapeutic guidelines for a combined treatment exist, it is not possible to compare regional results. We tried to partially solve this problem and suggested potential therapeutic guideline. In a combined therapy, it is possible to consider combining valproate with carbamazepine, lamotrigin or levetiracetam. A treatment by three

therapeutics was significantly less frequent, thus preventing us from identifying an optimal approach. However, it is possible to consider topiramate as an added third substance to an existing combination.

Monotherapy was more frequent in children compared to adults. The most frequent monotherapy was valproate in both groups. In both groups, the most frequent combined therapy included valproate and carbamazepine, less frequent were valproate and lamotrigin.

Key words: epilepsy, children, antiepileptic drugs, monotherapy, combined therapy