

Comparison of Drug Efficiency and Safety In Childhood Febrile Convulsions Depending On The Rate of Seizure Recurrence

Sevim Ash Ehlil¹, Prof. Dr. Dilara Fusun İçağasıoğlu²

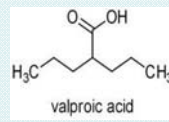
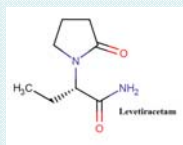
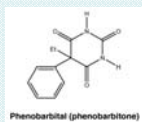
¹Bezmialem Vakıf University, Faculty of Medicine, Istanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Pediatric Neurology, Istanbul, Turkey



INTRODUCTION

Sodium valproate (VPA), phenobarbitone and levetiracetam are the most common drugs prescribed for febrile seizures. This study aims to analyze the drug efficacy and seizure recurrence rate of phenobarbitone, VPA and levetiracetam.



MATERIALS & METHODS

This was a retrospective study of preselected patients with febrile seizures aged 6 months to 5 years and mustered from the Bezmialem Vakıf University Faculty of Medicine Hospital and diagnosed by the Department of Pediatric Neurology between the years of 2018-2019. The children must have no other neurologic, psychiatric or somatic disorders. The participants were divided into three groups based on the treatment and the number of subjects were determined as 30 patients for each group based on 95% of QN level and 80% of power correlated with double times more recurrence rate for one group to another. Associations and differences between the groups were evaluated using the χ^2 test or Fisher test. The study data was evaluated using SPSS 20.0, IBM software. A value of $P=0.05$ was accepted as statistically significant.

RESULTS

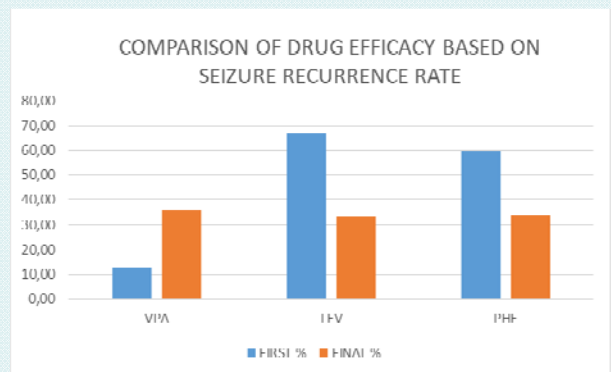
First Results

This research firstly experimented on 20 patients who are suited on the exclusion and inclusion criteria.

There are 11 patients who have exposed to VPA, only 12.8% of them have performed recurrence. There are 6 patients who have exposed to Levatiracetam and 66.7% of them have performed recurrence. There are 3 patients who have exposed to Phenobarbitone and 60% of them have performed recurrence. Statistically, no significant relation was observed between the groups.

Final Results

This research was experimented on 93 patients who are suited on the exclusion and inclusion criteria. There are 31 patients who have exposed to VPA, with 36.07% of seizure recurrence, 30 patients who have exposed to levetiracetam, with 33.5 % of seizure recurrence, 32 patients who have exposed to phenobarbitone with 34% of seizure recurrence.



CONCLUSION

Statistically, no significant relation was observed between the groups since the p value is more than 0.05 with respect to the statistic analysis which was performed accordingly to SPSS 20.0. No supremacy nor inferiority were observed between VPA, levetiracetam and phenobarbitone by the means of efficacy and seizure recurrence.

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vpa * rekürrens				lev * rekürrens			
Görüşöl				Görüşöl			
	İki	Üç	Total		İki	Üç	Total
10-11	Count	4	0	Count	1	0	1
11	% within vpa	44.4%	55.6%	% within lev	100.0%	0.0%	100.0%
12	% within rekürrens	30.8%	71.4%	% within rekürrens	84.6%	0.0%	100.0%
13	Count	8	11	Count	2	0	2
14	% within vpa	81.8%	18.2%	% within lev	33.3%	0.0%	100.0%
15	% within rekürrens	69.2%	28.6%	% within rekürrens	16.7%	0.0%	33.3%
16	Total	Count	13	Count	11	1	12
17	% within vpa	65.0%	35.0%	% within lev	86.4%	0.0%	100.0%
18	% within rekürrens	100.0%	100.0%	% within rekürrens	100.0%	0.0%	100.0%
Chi-Square Test				Chi-Square Test			
Fisher's Exact Test				Fisher's Exact Test			
2x2 Contingency Table				2x2 Contingency Table			
levop * rekürrens				phen * rekürrens			
Görüşöl				Görüşöl			
	İki	Üç	Total		İki	Üç	Total
19-20	Count	6	0	Count	3	0	3
20	% within levop	100.0%	0.0%	% within phen	100.0%	0.0%	100.0%
21	% within rekürrens	85.7%	0.0%	% within rekürrens	100.0%	0.0%	100.0%
22	Count	0	3	Count	0	3	3
23	% within levop	0.0%	0.0%	% within phen	0.0%	100.0%	100.0%
24	% within rekürrens	0.0%	25.0%	% within rekürrens	0.0%	100.0%	100.0%
25	Total	Count	6	Count	3	3	6
26	% within levop	100.0%	0.0%	% within phen	50.0%	50.0%	100.0%
27	% within rekürrens	100.0%	100.0%	% within rekürrens	100.0%	100.0%	100.0%
Chi-Square Test				Chi-Square Test			
Fisher's Exact Test				Fisher's Exact Test			
2x2 Contingency Table				2x2 Contingency Table			