Use of the MOXO test to evaluate the core components of ADHD in epileptic patients



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Purpose

To examine epilepsy patients' attentive profile using the MOXO, a continuous performance test containing measurement of the four core components of attention [Berger I, Goldzweig G. Isr Med Assoc J 2010;12(9):531-535.],

Method

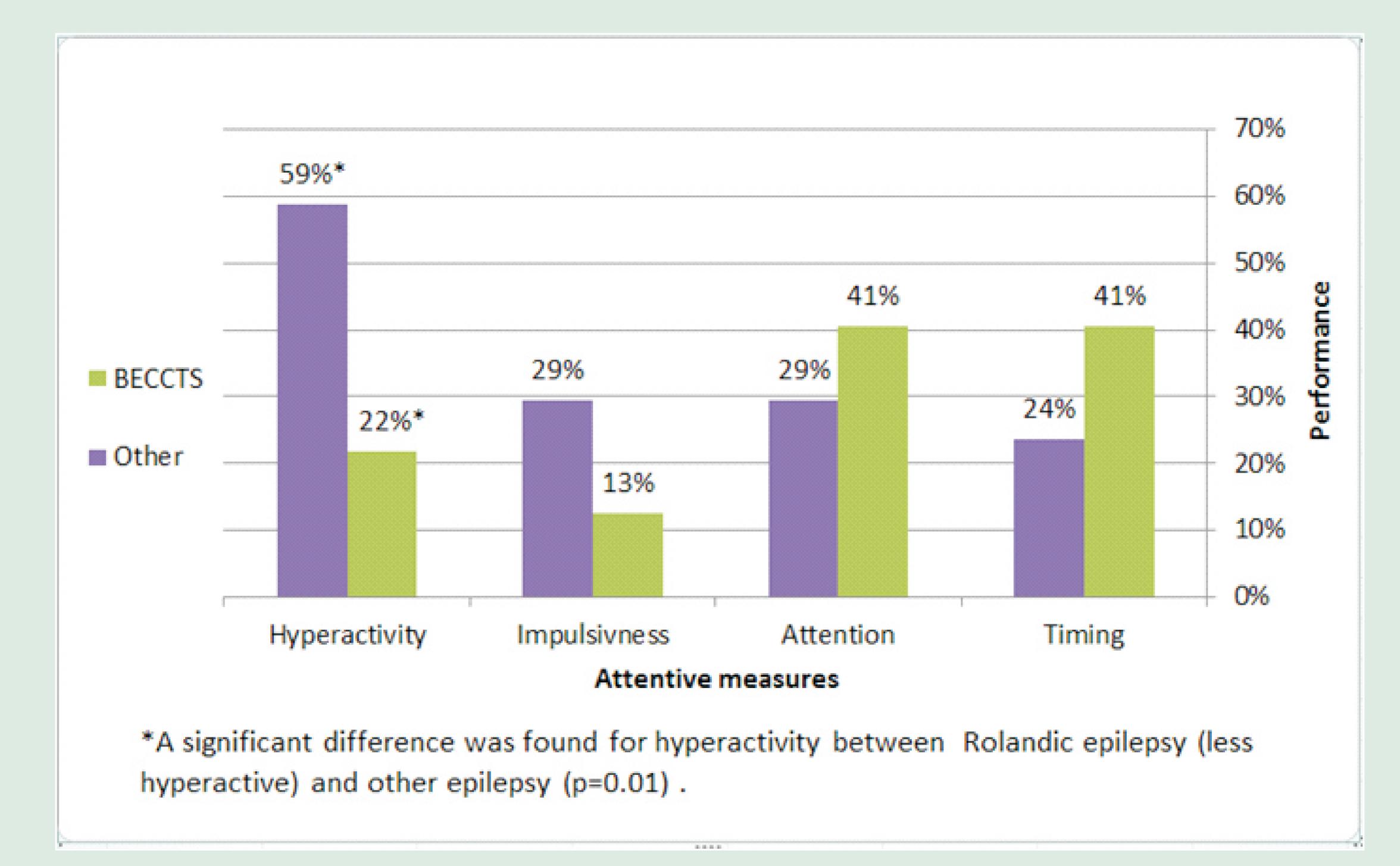
All epileptic children aged 6-18 years attending the Neurology Clinic of Schneider Children's Medical Center of Israel in 2012-2013 were evaluated with the DSM-IV and completed the MOXO test. Background data were collected from the patient files and revision of the electroencephalograms. Scores for attentive components (hyperactivity, inattention, timing, impulsivity) were compared to norm using analysis of variance (ANOVA), controlling for age and gender.

Results

The sample included 49 children (26 boys, 23 girls) with epilepsy: 32 benign epilepsy of childhood with central spikes (BECCTS), 9 generalized epilepsy, 6 complex partial epilepsy, and 2 juvenile myoclonic epilepsy. Twenty-six children (53%) had a DSM-IV diagnosis of ADHD, 11 with attention deficit only. Eighteen children with BECCTS (56%) had ADHD, 7 (38%) with attention deficit only. Performance on MOXO test indicated that epilepsy patients performed below norm range, on each of the attentive components (p<0.001). additionally, Performance pattern differ between epilepsy types. Compare to other types,The BECCTS group had significantly less hyperactivity (p=0.01) and a higher proportion of patients without any pathological components (43.8% vs 29.4%).

Conclusion

Epileptic childrenattentive profile is lower compare to norm range according to the MOXO test. The manifestations are different in children with BECCTS than children with other epilepsy types. The main disturbances associated with BECCTS are timing and attention rather than hyperactivity or impulsivity



Num. of	Epilepsy Type			
pathological paramrnters	BECCTS		Other	
	N	%	N	%
0	14	43.75	5	29.41
1	4	12.50	4	23.53
2	11	34.38	6	35.29
3	1	3.13	_	-
4	2	6.25	2	11.76
AII	32	100	17	100

More children with BECCTS have no pathological parameters compared to other epileptic types (highlighted).

About the MOXO www.moxo-adhdtest.com

The MOXO ADHD Test is an innovative CPT test, serves as an objective tool used to evaluate patient's attentive profile. The MOXO test contains distractor systems which is helpful in simulating daily environment and provides accurate measurements of all four core symptoms of ADHD - hyperactivity, inattention, timing and impulsivity.

