

Tourette Syndrome and Rage Attacks in Children and Adolescents: A Longitudinal Study

Take Home Message

- Rage attacks (RA) were significantly more present in patients with TS than in healthy controls.
- The severity of OCD and ADHD correlated with the presence of RA but the severity of tics did not.
- Hyperactivity and impulsivity early in life can predict the presence of RA later in childhood and adolescence.
- It is important to screen for the presence of RA in patients with TS and especially in patients who also have comorbid ADHD and/or OCD.

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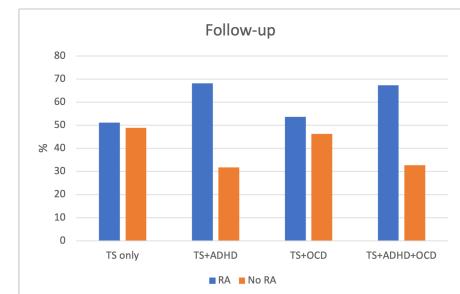
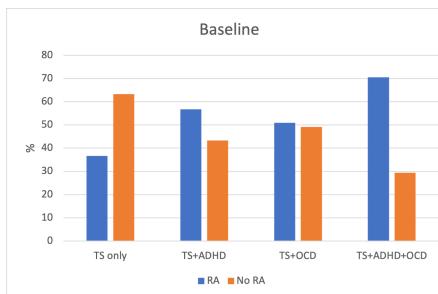
Results

		No RA	RA	P-value
		Mean (\pm SD)	Mean (\pm SD)	
OCD score at T1 and RA at T1	Obsessions	3.34 (4.56)	4.38 (4.81)	0.741
	Compulsions	3.53 (3.78)	5.43 (4.75)	0.021
OCD score at T1 and RA at T2	Obsessions	3.60 (4.39)	4.17 (5.04)	0.726
	Compulsions	4.07 (4.10)	4.79 (4.66)	0.749
ADHD score at T1 and RA at T1	Hyperactivity	2.25 (1.78)	2.90 (1.66)	0.037
	Impulsivity	1.17 (1.19)	1.64 (1.20)	0.001
	Concentration	3.85 (2.95)	5.17 (2.38)	0.001
ADHD score at T1 and RA at T2	Hyperactivity	2.24 (1.79)	2.70 (1.63)	0.027
	Impulsivity	1.00 (1.11)	1.61 (1.20)	0.029
	Concentration	3.35 (2.71)	5.08 (2.60)	0.129

T1: Baseline, T2: Follow-up, OCD score: CY-BOCS/Y-BOCS-score, ADHD-score: ADHD-RS/ASRS-score, N at T1 for OCD-score = 154 (no RA) and 159 (RA), N at T2 for OCD-score = 95 (no RA) and 132 (RA), N at T1 for ADHD-score = 153 (no RA) and 159 (RA), N at T2 for ADHD-score = 94 (no RA) and 132 (RA), all data is adjusted for age, sex and IQ-score and socioeconomic status.



Rage Attacks in Subgroups



Background

Many patients with Tourette syndrome (TS) are experiencing rage attacks (RA) and patients report these to affect their quality of life even more than their tics. Aim of this study is to examine correlation between tic severity, comorbidities and RA both cross-sectionally and longitudinal.

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Methods

314 patients between the age of 5 and 19 years with TS were examined at baseline and 227 returned for follow-up 6 years later. A matched control group of 81 at baseline and 53 for follow-up were also examined. Both at baseline and follow-up, the examinations consisted of:

- Yale Global Tic Severity Scale (YGTSS)
- ADHD rating scale (ADHD-RS) and Adult ADHD self-report scale (ASRS)
- (Children's) Yale-Brown obsessive compulsive scale ((C)Y-BOCS)
- Structured questionnaire regarding the presence of RA.