Course of Tourette Syndrome and comorbidities

Take Home Message: Age-related decline in tics, OCD severity and ADHD symptoms but continuously subclinical symptoms persisting into adulthood.

Background and aim

The clinical presentation of Tourette syndrome (TS) is heterogeneous and can vary significantly from few tics without comorbidities to severe tics and disabling comorbidities and coexisting psychopathologies. The clinical course of TS and comorbidities have only been examined in few studies.

This study ***describes the clinical course of tics and comorbidities in a prospective view as well as the prevalence of comorbidities and coexisting psychopathologies during adolescence in a cross-sectional view.***

Methods

- We performed a prospective longitudinal clinical study.
- At baseline (T1), we included 314 patients with TS; aged 5-20 years (mean 12.4).
- At follow-up (T2), after 6 years, 227 patients aged 11-25 years (mean 18.05) were reexamined.
- Participants were clinical examined with several instruments at T1 and T2; among others; YGTSS, (C)Y-BOCS and ADHD-RS/ASRS.
- A cross-sectional diagnostic evaluation with The Development and Well-Being Assessment (DAWBA) was performed at T2 (n=146).

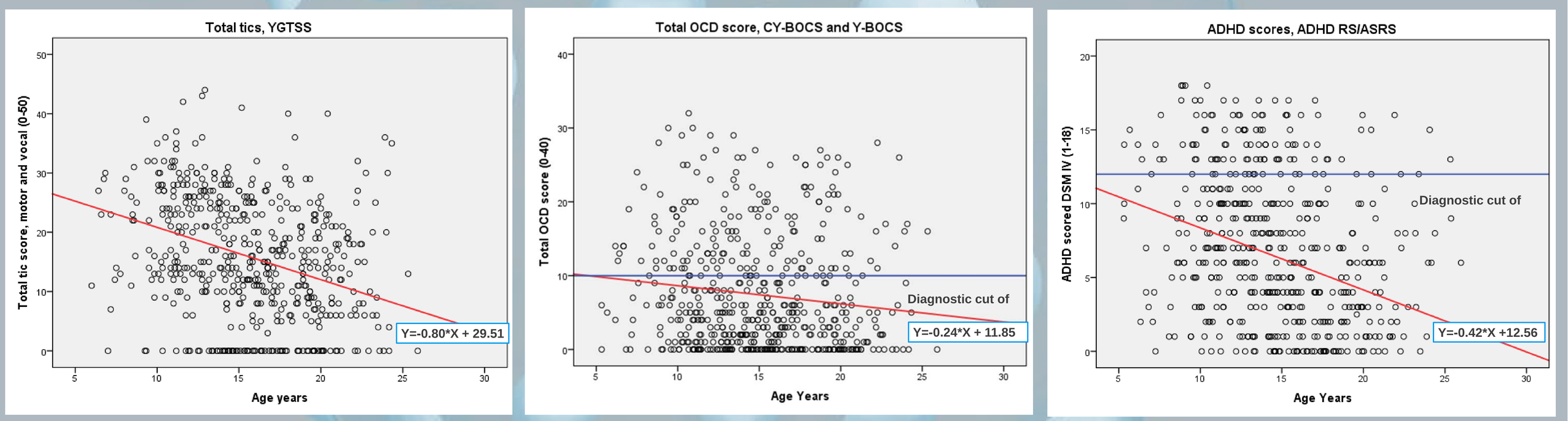

Figure 1. The clinical course of tics, OCD, ADHD in the age 5-26 years.
A. Total tic score, B. OCD severity and C. ADHD severity

Diagnoses	Follow up (n=146)
OCD	**36** *(24.7%)*
Emotional disorders	**35** *(24.0%)*
ADHD	**50** *(34.2%)*
Behavioral disorders	**16** *(11.0%)*
Developmental disorders	**18** *(12.3%)*
Mental retardation IQ<70	**8** *(5.6%)*
Eating disorders	**3** *(2.1%)*
Sleep disturbance	**15** *(11.4%)*
Psychosis	**2** *(1.4%)*
Other diagnoses	**2** *(1.4%)*
Comorbidity and coexistent psychopathologies	**92** *(63.0%)*

Table 1. ***Comorbidity and coexistent psychopathology diagnoses in a subgroup (n=146) at follow up.***

Results

- ***Tics*** *declined significantly with age* (0.80, CI: 1.01-0.58, points yearly on Yale Global Tic Severity Scale, range 0-50)
- Above age 16, 22.8% had moderate to severe tic, 22.4% had minimal tic, 37.1% had mild tic and 17.7% had absence of tics.
- ***OCD*** *severity declined significantly with age* (0.24, CI: 0.39-0.09, points on CY-BOCS/Y-BOCS, range 0-40)
- ***ADHD*** *severity declined significantly with age* (0.42, CI: 0.52-0.32, based on DSM IV criteria, range 0-18).
- At follow-up 185 diagnoses of **comorbidity and coexistent psychopathologies** were put on 92 participants with several participants having more than one diagnoses.
- At follow-up 63.0% of the cohort had comorbidities and coexistent psychopathologies whereas *37.0% presented with* ***pure TS*** *having no comorbidities*.

Conclusion: Tics, OCD and ADHD severity scores were significantly age-related and all declined during adolescence though with different rates. In spite of general improvement and partial remission considerable comorbidities and coexisting psychopathologies persist in adolescence and threshold symptoms and difficulties still have to be considered in clinics.

Camilla Groth, Nanette Mol Debes, Charlotte Ulrikke Rask, Theis Lange, Liselotte Skov
Paediatric Department, Herlev Hospital, Denmark, Child and Adolescent Psychiatric Centre ,Risskov, Aarhus University Hospital, Department of Biostatistics, University of Copenhagen

Correspondance: camilla.groth.jakobsen@gmail.com