**Supplementary Table 1. Summary of sex differences in patients with TSSD ≥18 years-old, “older group”**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Male****n=61, (%)** | **Female****n=22, (%)** | ***P*-value** |
| Age at onset (years) | 14.05 ± 14.72 | 13.73 ± 8.31 | **0.359** |
| Age at evaluation (years) | 30.15 ± 12.22 | 33.91 ± 12.05 | **0.154** |
| **Simple motor tics** | 60 (98.3) | 21 (95.5) | 0.462 |
| **Complex motor tics** | 29 (47.5) | 14 (63.6) | 0.195 |
| **Tic distribution** |  |  |  |
|  Head/facial tics | 54 (88.5) | 19 (86.3) | 0.720 |
|  Eye blinking | 34 (55.7) | 15 (68.2) | 0.309 |
|  Grimacing | 26 (42.6) | 11 (50) | 0.551 |
|  Jaw tics | 14 (22.9) | 8 (36.4) | 0.177 |
|  Head jerks | 37 (60.6) | 14 (63.6) | 0.805 |
|  Shoulder tics | 28 (45.9) | 14 (63.6) | 0.173 |
|  Trunk tics | 21 (34.4) | 8 (36.4) | 0.870 |
|  Arm tics  | 33 (54) | 12 (54.5) | 0.971 |
|  Leg tics | 21 (34.4) | 8 (36.4) | 0.870 |
| **Special types of tics** |  |  |  |
|  Eye-rolling tics | 13 (21.3) | 4 (18.2) | 1.000 |
|  Dystonic tics | 19 (31.1) | 9 (41) | 0.406 |
|  Tonic tics | 5 (8.2) | 3 (13.6) | 0.431 |
|  Copropraxia | 3 (4.9) | 0 | 0.562 |
|  Self-injurious behavior | 8 (13.1) | 5 (22.7) | 0.315 |
| **Simple phonic tics** | 41 (67.2) | 17 (77.3) | 0.378 |
| **Complex phonic tics** | 9 (14.7) | 2 (9) | 0.719 |
|  Verbalizations | 7 (11.4) | 1 (4.5) | 0.675 |
|  Coprolalia | 3 (4.9) | 1 (4.5) | 1.000 |
|  Echolalia | 1 (1.63) | 1 (4.5) | 0.462 |
|  Palilalia | 0 | 0 | ---- |
| **No. of phonic tics** | 2.30 ± 2.08 | 1.76 ± 1.51 | **0.517** |
| **Neuropsychiatry comorbidities** |  |  |  |
|  ADHD | 20 (32.8) | 5 (22.7) | 0.378 |
|  OCD | 40 (65.5) | 14 (63.6) | 0.927 |
| **Clinical syndrome** |  |  |  |
|  TS | 42 (68.8) | 17 (77.3) | 0.455 |
|  CMTD | 18 (29.5) | 5 (22.7) | 0.542 |
|  CVTD | 1 (1.63) | 0 | 1.000 |
|  PTD | 0 | 0 | ---- |
| **Severity** |  |  |  |
|  By video assessment | 3.41 ± 1.11 | 3.55 ± 1.22 | **0.864** |
|  By clinical history | 2.21 ± 0.635 | 2.18 ± 0.733 | **0.918** |

ADHD: attention-deficit/hyperactivity disorder; CMTD: chronic motor tic disorder; CVTD: chronic vocal tic disorder; OCD: obsessive-compulsive disorder; PTD: provisional tic disorder; TS: Tourette syndrome.

**Supplementary Table 2. Age differences between females with TS**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **“Young” group****n=23, (%)** | **“Old” group****n=22, (%)** | ***P*-value** |
| Age at onset (years) | 7.5 ± 3.5 | 13.7 ± 8.31 | 0.016 |
| Age at evaluation (years) | 11.39 ± 3.83 | 33.9 ± 12.05 | <0.001 |
| **Simple motor tics** |  23 (100) | 22 (100) | 0.489 |
| **Complex motor tics** |  6 (26) | 14 (63.6) | **0.011** |
| **Tic distribution** |  |  |  |
|  Head/facial tics |  17 (74) | 19 (86.3) | 0.459 |
|  Eye blinking | 8 (34.7) | 15 (68.2) | **0.025** |
|  Grimacing | 5 (21.7) | 11 (50) | **0.048** |
|  Jaw tics |  5 (21.7) | 8 (36.3) | 0.235 |
|  Head jerks | 13 (56.5) | 14 (63.6) | 0.626 |
|  Shoulder tics | 11 (47.8) | 14 (63.6) | 0.286 |
|  Trunk tics | 6 (26) | 8 (36.3) | 0.457 |
|  Arm tics  | 4 (17.4) | 12 (54.5) | **0.009** |
|  Leg tics | 4 (17.4) | 8 (36.3) | 0.150 |
| **Special types of tics** |  |  |  |
|  Eye-rolling tics | 2 (8.7) | 4 (18.2) | 0.414 |
|  Dystonic tics | 5 (21.7) | 9 (41) | 0.165 |
|  Tonic tics | 3 (13) | 3 (13.6) | 1.000 |
|  Copropraxia | 2 (8.7) | 0 | 0.489 |
|  Self-injurious behavior |  3 (13) | 5 (22.7) | 0.459 |
| **Simple phonic tics** | 14 (61) | 17 (77.3) | 0.235 |
| **Complex phonic tics** |  4 (17.4) | 2 (9) | 0.665 |
|  Verbalizations |  4 (17.4) | 1 (4.5) | 0.346 |
|  Coprolalia | 2 (8.7) | 1 (4.5) | 1.000 |
|  Echolalia | 1 (4.3) | 1 (4.5) | 1.000 |
|  Palilalia | 0 | 0 | ---- |
| **No. of phonic tics** | 1.50 ± 1.79 | 1.76 ± 1.51 | 0.303 |
| **Neuropsychiatry comorbidities** |  |  |  |
|  ADHD | 5 (21.7) | 5 (22.7) | 1.000 |
|  OCD | 10 (43.5) | 14 (63.6) | 0.123 |
| **Clinical syndrome** |  |  |  |
|  TS | 15 (65.2) | 17 (77.3) | 0.372 |
|  CMTD | 7 (30.4) | 5 (22.7) | 0.559 |
|  CVTD | 0 | 0 | -- |
|  PTD | 2 (8.7) | 0 | 0.489 |
| **Severity** |  |  |  |
|  By video assessment | 2.87 ± 1.05 | 3.55 ± 1.22 | 0.078 |
|  By clinical history | 1.91 ± 0.793 | 2.18 ± 0.733 | 0.244 |

ADHD: attention-deficit/hyperactivity disorder; CMTD: chronic motor tic disorder; CVTD: chronic vocal tic disorder; OCD: obsessive-compulsive disorder; PTD: provisional tic disorder; TS: Tourette syndrome.

**Supplementary Table 3. Age differences between males with TS**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **“Young” group****n=95, (%)** | **“Old” group****n=61, (%)** | ***P*-value** |
| Age at onset (years) | 5.92 ± 2.64 | 14.05 ± 14.72 | <0.001 |
| Age at evaluation (years) | 11.13 ± 3.14 | 30.15 ± 12.22 | <0.001 |
| **Simple motor tics** | 94 (98.9) | 60 (98.3) | 1.000 |
| **Complex motor tics** | 52 (54.7) | 29 (47.5) | 0.380 |
| **Tic distribution** |  |  |  |
|  Head/facial tics | 83 (87.3) | 54 (88.5) | 0.829 |
|  Eye blinking | 61 (64.2) | 34 (55.7) | 0.290 |
|  Grimacing | 31 (32.6) | 26 (42.6) | 0.206 |
|  Jaw tics | 20 (21) | 14 (23) | 0.779 |
|  Head jerks |  52 (54.7) | 37 (60.6) | 0.466 |
|  Shoulder tics | 37 (39) | 28 (46) | 0.343 |
|  Trunk tics | 29 (30.5) | 21 (34.4) | 0.611 |
|  Arm tics  | 32 (33.6) | 33 (54) | **0.012** |
|  Leg tics | 21 (22.1) | 21 (34.4) | 0.090 |
| **Special types of tics** |  |  |  |
|  Eye-rolling tics | 26 (27.3) | 13 (21.3) | 0.394 |
|  Dystonic tics | 13 (13.7) | 19 (31.2) | **0.008** |
|  Tonic tics |  6 (6.3) | 5 (8.2) | 0.752 |
|  Copropraxia | 5 (5.3) | 3 (4.9) | 1.000 |
|  Self-injurious behavior | 14 (14.7) | 8 (13) | 0.776 |
| **Simple phonic tics** | 72 (75.8) | 41 (67.2) | 0.242 |
| **Complex phonic tics** | 20 (21) |  9 (14.7) | 0.324 |
|  Verbalizations |  14 (14.7) |  7 (11.5) | 0.560 |
|  Coprolalia | 11 (11.6) | 3 (4.9) | 0.155 |
|  Echolalia | 4 (4.2) |  1 (1.6) | 0.649 |
|  Palilalia | 2 (2.1) | 0 | 0.521 |
| **No. of phonic tics** | 2.32 ± 1.84 | 2.30 ± 2.07 | 0.697 |
| **Neuropsychiatry comorbidities** |  |  |  |
|  ADHD | 53 (55.8) |  20 (32.7) | **0.005** |
|  OCD | 48 (50.5) | 40 (65.5) | 0.087 |
| **Clinical syndrome** |  |  |  |
|  TS | 73 (76.8) | 42 (68.8) | 0.269 |
|  CMTD | 17 (18) | 18 (29.5) | 0.090 |
|  CVTD | 2 (2.1) | 1 (1.6) | 1.000 |
|  PTD | 3 (3.15) | 0 | 0.281 |
| **Severity** |  |  |  |
|  By video assessment | 3.19 ± 1.05 | 3.41 ± 1.11 | 0.222 |
|  By clinical history | 2.04 ± 0.713 | 2.21 ± 0.635 | 0.144 |

ADHD: attention-deficit/hyperactivity disorder; CMTD: chronic motor tic disorder; CVTD: chronic vocal tic disorder; OCD: obsessive-compulsive disorder; PTD: provisional tic disorder; TS: Tourette syndrome.