**Table S1.** Stimulation parameters for the patients at time of final assessment.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Patient No.** | **System** | **Wave Amplitude (V)** | **Pulse Width (ms)** | **Frequency (Hz)** |
| 1 | Activa | 4.6 | 90 | 160 |
| 2 | Soletra | 4 | 60 | 160 |
| 3 | Activa | 4.2 | 120 | 130 |
| 4 | Soletra | 3.6 | 120 | 100 |
| 5 | Soletra | 3.3 | 90 | 160 |
| 6 | Activa | 5 | 120 | 160 |
| 7 | Activa | 5 | 90 | 160 |
| 8 | Activa | 4.6 | 90 | 130 |
| 9 | Activa | 4 | 90 | 160 |
| 10 | Soletra | 3.7 | 60 | 130 |
| 11 | Soletra | 3 | 60 | 160 |
| 12 | Activa | 4.8 | 120 | 130 |
| 13 | Activa | 3.8 | 90 | 130 |
| 14 | Activa | 5 | 90 | 110 |
| 15 | Activa | 3.6 | 120 | 130 |
| 16 | Activa | 3.6 | 90 | 130 |
| 17 | Activa | 4.5 | 120 | 130 |

**Table S2.** Individual patient Total Yale Global Tic Severity Scale scores before DBS and at final follow up.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Patient No.** | **Final follow up (months)** | **M****Pre** | **M****Post** | **V****pre** | **V****post** | **TTSS****Pre** | **TTSS****Post** | **TYGTSS****Pre** | **TYGTSS****Post** |
| 1 | 28 | 21 | 12 | 10 | 5 | 31 | 17 | 81 | 27 |
| 2 | 46 | 25 | 18 | 25 | 11 | 50 | 29 | 100 | 69 |
| 3 | 30 | 18 | 12 | 12 | 7 | 30 | 19 | 50 | 39 |
| 4 | 36 | 22 | 10 | 22 | 6 | 44 | 16 | 84 | 26 |
| 5 | 41 | 22 | 7 | 20 | 9 | 42 | 16 | 92 | 26 |
| 6 | 22 | 21 | 9 | 16 | 4 | 37 | 13 | 77 | 23 |
| 7 | 30 | 25 | 8 | 20 | 4 | 45 | 12 | 95 | 22 |
| 8 | 22 | 24 | 3 | 14 | 0 | 38 | 3 | 88 | 13 |
| 9 | 35 | 22 | 20 | 25 | 20 | 47 | 40 | 97 | 80 |
| 10 | 20 | 22 | 6 | 18 | 2 | 40 | 8 | 80 | 28 |
| 11 | 23 | 24 | 24 | 16 | 16 | 40 | 40 | 75 | 75 |
| 12 | 12 | 20 | 4 | 18 | 12 | 38 | 16 | 88 | 36 |
| 13 | 16 | 20 | 5 | 20 | 12 | 40 | 17 | 80 | 37 |
| 14 | 9 | 15 | 10 | 14 | 10 | 29 | 20 | 69 | 30 |
| 15 | 8 | 21 | 19 | 22 | 16 | 43 | 35 | 83 | 35 |
| 16 | 6 | 24 | 11 | 8 | 0 | 32 | 11 | 72 | 21 |
| 17 | 13 | 20 | 13 | 19 | 11 | 39 | 24 | 69 | 44 |

M = motor; V – vocal tics; TTSS = M+V; TYGTSS = TTSS+impairment

**Table S3.** Individual patient Yale-Brown Obsessive Compulsive Scale (YBOCS), Hamilton Depression Rating Scale (HDRS), and Gilles de la Tourette Quality of Life Scale (GTS-QOL) scores before DBS and at final follow up.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Patient No.** | **YBOCS****Pre** | **YBOCS****Post** | **HDRS****Pre** | **HDRS****Post** | **GAF** **Pre** | **GAF** **Post** | **GTS-QOL** **Pre** | **GTS-QOL Post** |
| 1 | 25 | 0 | 26 | 5 | 50 | 90 | 40 | 70 |
| 2 | 30 | 18 | 16 | 17 | 20 | 50 | 20 | 40 |
| 3 | 22 | 12 | 17 | 11 | 50 | 80 | 30 | 60 |
| 4 | 19 | 0 | 17 | 6 | 60 | 80 | 70 | 70 |
| 5 | 31 | 16 | 26 | 11 | 50 | 80 | 65 | 70 |
| 6 | 27 | 14 | 15 | 13 | 40 | 70 | 20 | 70 |
| 7 | 0 | 0 | 9 | 0 | 50 | 90 | 15 | 90 |
| 8 | 0 | 0 | 4 | 5 | 80 | 90 | 70 | 90 |
| 9 | 0 | 0 | 26 | 12 | 30 | 50 | 15 | 70 |
| 10 | 20 | 4 | 18 | 6 | 40 | 80 | 50 | 80 |
| 11 | 0 | 0 | 7 | 5 | 50 | 50 | 35 | 45 |
| 12 | 0 | 0 | 12 | 11 | 50 | 80 | 30 | 60 |
| 13 | 11 | 0 | 10 | 18 | 60 | 60 | 40 | 50 |
| 14 | 13 | 1 | 16 | 0 | 50 | 80 | 40 | 80 |
| 15 | 14 | 7 | 27 | 12 | 40 | 60 | 20 | 30 |
| 16 | 1 | 1 | 4 | 1 | 60 | 90 | 70 | 80 |
| 17 | 23 | 17 | 11 | 3 | 70 | 80 | 65 | 75 |