

Supplementary Material

Supplementary Table 1 Comparison of BSP-related indexes between the base and treatment inBoNT-naïve patients and with repeated BoNT injections

	BoNT-naïve			With repeated BoNT injections		
	Baseline (n = 3, median, IQR)	Treatment (n = 3, median, IQR)	P value	Baseline (n = 18, median, IQR)	Treatment (n = 18, median, IQR)	P value
Anxious and subscale scores						
SAS	30.0 (25.0, ND)	27.0 (25.0, ND)	0.500	29.0 (25.75, 36.25)	26.5(25.0, 30.5)	0.255
Anxiety and panic	5.0 (5.0, 5.0)	5.0 (5.0, ND)	0.317	5.0 (5.0, 8.0)	5.0 (5.0, 6.0)	0.396
<i>Anxiety</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.25)	1.0 (1.0, 1.0)	0.714
<i>Fear</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000
<i>Panic</i>	1.0 (1.0, 1.0)	1.0 (1.0, ND)	0.317	1.0 (1.0, 2.25)	1.0 (1.0, 1.25)	0.259
<i>Feeling crazy</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.296
<i>Flushed face</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.283
Somatic control	6.0 (5.0, ND)	7.0(5.0, ND)	1.000	6.0 (5.0, 8.0)	5.0 (5.0, 8.0)	0.419
<i>Premonition of misfortune</i>	1.0 (1.0, 1.0)	1.0 (1.0, ND)	0.317	1.0 (1.0, 2.0)	1.0 (1.0, 1.25)	0.505
<i>Inability to sit still</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0(1.0, 2.0)	1.0(1.0, 1.0)	0.018^a
<i>Dyspnea</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000
<i>Hyperhidrosis</i>	2.0(1.0, ND)	2.0(1.0, ND)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.674
<i>Sleep disorder</i>	1.0 (1.0, ND)	1.0 (1.0, ND)	1.000	1.0 (1.0, 2.25)	1.0 (1.0, 2.25)	0.803
Vestibular sensations	5.0 (5.0, ND)	5.0 (5.0, 5.0)	0.317	5.0 (5.0, 5.25)	5.0 (5.0, 6.0)	0.414
<i>Trembling hands and feet</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000

<i>Palpitation</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.968
<i>Dizziness</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 2.0)	0.242
<i>Syncope</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.317
<i>Tingling of hands and feet</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.597
Gastrointestinal/muscular sensations	6.0 (5.0, ND)	5.0 (5.0, ND)	0.346	5.5(5.0, 8.0)	5.0 (5.0, 6.25)	0.221
<i>Headache</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 2.0)	1.0 (1.0, 1.0)	0.074
<i>Fatigue</i>	2.0 (1.0, ND)	1.0 (1.0, ND)	0.456	1.0 (1.0, 1.0)	1.0 (1.0, 2.0)	0.209
<i>Stomach pain and indigestion</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.151
<i>Frequent urination</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 2.0)	1.0 (1.0, 1.0)	0.071
<i>Nightmare</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.25)	1.0 (1.0, 1.0)	0.407
HAMA	0.0 (0.0, ND)	0.0 (0.0, 0.0)	0.317	2.0 (0.0, 5.0)	0.5(0.0, 2.25)	0.127
Depression and subscale scores						
SDS	31.0 (25.0, ND)	26.0 (25.0, ND)	0.376	29.0 (25.0, 33.5)	26.0 (25.0, 29.25)	0.171
Well-Being Index	5.0 (5.0, ND)	5.0 (5.0, 5.0)	0.317	5.0 (5.0, 8.0)	5.0 (5.0, 5.0)	0.056
<i>Decreased capacity</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.25)	1.0 (1.0, 1.0)	0.036^a
<i>Hard to decide</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.25)	1.0 (1.0, 1.0)	0.036^a
<i>Feeling of uselessness</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 2.0)	1.0 (1.0, 1.0)	0.097
<i>Empty-minded</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.25)	1.0 (1.0, 1.0)	0.171
<i>Loss of interest</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.296
Depressed Mood Index	3.0 (3.0, ND)	3.0 (3.0, 3.0)	0.317	3.0 (3.0, 3.0)	3.0 (3.0, 3.0)	0.931
<i>Dejection</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.977
<i>Weepiness</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.317

<i>Sense of worthlessness</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.317
Somatic Symptoms Index	3.0 (2.0, ND)	2.0 (2.0, ND)	0.456	2.0 (2.0, 2.25)	2.0 (2.0, 3.0)	0.644
<i>Palpitation</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.151
<i>Fatigue</i>	2.0 (1.0, ND)	1.0 (1.0, ND)	0.456	1.0 (1.0, 1.0)	1.0 (1.0, 2.0)	0.198
Optimism Index	2.0 (2.0, ND)	2.0 (2.0, ND)	0.796	2.0 (2.0, 3.0)	2.0 (2.0, 2.0)	0.067
<i>Thought disorder</i>	1.0 (1.0, ND)	1.0 (1.0, ND)	1.000	1.0(1.0, 1.25)	1.0(1.0, 1.0)	0.036^a
<i>Despair</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 1.25)	1.0 (1.0, 1.0)	0.154
Items Not Clustered Into an Index	9.0 (8.0, ND)	8.0 (8.0, ND)	0.346	10.0 (8.0, 12.25)	9.0 (8.0, 11.0)	0.451
<i>Heavy in the morning and light at night</i>	1.0 (1.0, ND)	1.0 (1.0, ND)	1.000	1.0 (1.0, 2.0)	1.0 (1.0, 1.0)	0.292
<i>Sleep disorder</i>	1.0 (1.0, ND)	1.0 (1.0, 1.0)	0.317	1.0 (1.0, 3.0)	1.0 (1.0, 3.0)	0.861
<i>Loss of appetite</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000
<i>Hyposexual interest</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.597
<i>Weight loss</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.317
<i>Constipation</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.562
<i>Insecurity</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	0.310
<i>Irritability</i>	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)	1.000	1.0 (1.0, 2.0)	1.0 (1.0, 1.0)	0.408
HAMD	0.0 (0.0, ND)	0.0 (0.0, ND)	0.796	2.0 (0.0, 3.25)	1.0 (0.0, 3.0)	0.282
Motor symptom and subscale scores						
JRS	5.0 (5.0, ND)	4.0 (3.0, ND)	0.105	6.0 (5.0, 7.0)	6.0 (4.0, 7.0)	0.612
JRS-severity	2.0 (2.0, ND)	2.0 (2.0, 2.0)	0.317	3.0 (2.0, 4.0)	3.0 (2.0, 3.25)	0.824
JRS-frequency	3.0(3.0, 3.0)	2.0 (1.0, ND)	0.121	3.0 (3.0, 3.25)	3.0 (2.0, 3.0)	0.412

BSDI	1.0 (0.0, ND)	0.17 (0.0, ND)	0.369	1.0 (0.73, 2.0)	1 (0.5, 1.5625)	0.357
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^a*P* < 0.05 is a significant difference.

Supplementary Table 2 Correlation between BoNT-A therapy and JRS, BSDI, SAS, HAMA,SDS and HAMD total and their subscale scores in a whole group and subgroups

	All patients		BoNT-naïve		With repeated BoNT injections	
	<i>r</i>	<i>P</i> value	<i>r</i>	<i>P</i> value	<i>r</i>	<i>P</i> value
SAS	-0.195	0.215	-0.302	0.561	-0.193	0.260
Anxiety and panic	-0.086	0.586	0.447	0.374	-0.144	0.404
<i>Anxiety</i>	-0.058	0.717	ND	ND	-0.062	0.719
<i>Fear</i>	0.000	1.000	ND	ND	0.000	1.000
<i>Panic</i>	-0.124	0.435	0.447	0.374	-0.191	0.265
<i>Feeling crazy</i>	-0.162	0.305	ND	ND	-0.177	0.302
<i>Flushed face</i>	-0.166	0.294	ND	ND	-0.181	0.290
Somatic control	-0.120	0.448	0.000	1.000	-0.136	0.427
<i>Premonition of misfortune</i>	-0.049	0.760	0.447	0.374	-0.113	0.513
<i>Inability to sit still</i>	-0.367	0.017^a	ND	ND	-0.401	0.015^a
<i>Dyspnea</i>	-0.156	0.323	-0.447	0.374	ND	ND
<i>Hyperhidrosis</i>	-0.052	0.743	0.000	1.000	-0.071	0.680
<i>Sleep disorder</i>	-0.038	0.812	0.000	1.000	-0.042	0.808

Vestibular sensations	0.082	0.608	-0.447	0.374	0.138	0.421
<i>Trembling hands and feet</i>	-0.092	0.560	-0.447	0.374	0.000	1.000
<i>Palpitation</i>	-0.005	0.973	ND	ND	-0.007	0.969
<i>Dizziness</i>	0.182	0.249	ND	ND	0.198	0.247
<i>Syncope</i>	-0.156	0.323	ND	ND	-0.169	0.324
<i>Tingling of hands and feet</i>	0.084	0.599	ND	ND	0.089	0.605
Gastrointestinal/muscular sensations	-0.234	0.136	-0.422	0.405	-0.207	0.226
<i>Headache</i>	-0.322	0.038^a	-0.447	0.374	-0.302	0.074
<i>Fatigue</i>	0.129	0.414	-0.333	0.519	0.212	0.214
<i>Stomach pain and indigestion</i>	-0.277	0.075	-0.447	0.374	-0.243	0.154
<i>Frequent urination</i>	-0.278	0.075	ND	ND	-0.305	0.070
<i>Nightmare</i>	-0.129	0.415	ND	ND	-0.140	0.415
HAMA	-0.261	0.095	-0.447	0.374	-0.258	0.129
SDS	-0.260	0.096	-0.396	0.437	-0.231	0.175
Well-Being Index	-0.342	0.027^a	-0.447	0.374	-0.324	0.054
<i>Decreased capacity</i>	-0.368	0.017^a	-0.447	0.374	-0.354	0.034^a
<i>Hard to decide</i>	-0.367	0.017^a	-0.447	0.374	-0.354	0.034^a
<i>Feeling of uselessness</i>	-0.303	0.051	-0.447	0.374	-0.280	0.098
<i>Empty-minded</i>	-0.262	0.094	-0.447	0.374	-0.231	0.174
<i>Loss of interest</i>	-0.221	0.160	-0.447	0.374	-0.177	0.302
Depressed Mood Index	-0.080	0.613	-0.447	0.374	-0.015	0.932
<i>Dejection</i>	-0.073	0.644	-0.447	0.374	-0.005	0.977
<i>Weepiness</i>	-0.156	0.323	ND	ND	-0.169	0.324

<i>Sense of worthlessness</i>	-0.156	0.323	ND	ND	-0.169	0.324
Somatic Symptoms Index	0.015	0.925	-0.333	0.519	0.078	0.651
<i>Palpitation</i>	-0.224	0.155	ND	ND	-0.243	0.154
<i>Fatigue</i>	0.122	0.441	-0.333	0.519	0.218	0.202
Optimism Index	-0.264	0.091	-0.115	0.828	-0.309	0.066
<i>Thought disorder</i>	-0.272	0.081	0.000	1.000	-0.354^a	0.034^a
<i>Despair</i>	-0.272	0.081	-0.447	0.374	-0.241	0.157
Items Not Clustered Into an Index	-0.153	0.333	-0.422	0.405	-0.127	0.459
<i>Heavy in the morning and light at night</i>	-0.151	0.340	0.000	1.000	-0.178	0.298
<i>Sleep disorder</i>	-0.036	0.823	-0.447	0.374	0.030	0.864
<i>Loss of appetite</i>	0.000	1.000	ND	ND	0.000	1.000
<i>Hyposexual interest</i>	-0.084	0.599	ND	ND	-0.089	0.605
<i>Weight loss</i>	-0.156	0.323	ND	ND	-0.169	0.324
<i>Constipation</i>	-0.087	0.582	ND	ND	-0.098	0.570
<i>Insecurity</i>	-0.158	0.317	ND	ND	-0.172	0.317
<i>Irritability</i>	-0.126	0.425	ND	ND	-0.140	0.416
HAMD	-0.133	0.402	0.115	0.828	-0.182	0.288
JRS	-0.133	0.400	-0.726	0.102	-0.086	0.619
JRS-severity	-0.063	0.690	-0.447	0.374	-0.038	0.828
JRS-frequency	-0.205	0.193	-0.693	0.127	-0.139	0.420
BSDI	-0.178	0.260	-0.402	0.429	-0.156	0.364

^a $P < 0.05$ is a significant difference.