

Table S3 summary of clinical information between PD and HC groups

	Healthy control	PD patients	P-value
n	14	24	
Gender(Male/Female)	6/8	16/8	0.152 <sup>a</sup>
Age(mean±s.d.)	74.64±5.57	73.75±6.26	0.662 <sup>b</sup>
BMI(mean±s.d.)	24.00±2.66	22.96±3.64	0.357 <sup>b</sup>
NMSS score	3.36±4.67	31.68±19.08	<0.001 <sup>b</sup>
Wexner score	1.29±2.59	17.58±5.43	<0.001 <sup>b</sup>
HAMA score	2.71±4.38	9.26±5.53	<0.001 <sup>b</sup>
HAMD score	2.07±4.05	6.57±3.09	<0.001 <sup>b</sup>
UPDRS score	2.36±2.93	33.11±15.75	
PD duration(median, [IQR])	0	5[2.25-8]	
H&Y stage(median, [IQR])	0	2.5[2-3]	

a Chi-square test, b t-test,

BMI(Body Mass Index)=kg/m<sup>2</sup>,[IQR] means interquartile range.