



Figure S1 ROC analyses for differentiating different groups through SVM. The z-DC values in the right precentral gyrus have a significant potential to distinguish between PD-pRBD and PD-npRBD patients (AUC =0.905, sensitivity =66.67%, specificity =100%). The z-DC values in the right precentral gyrus can be a moderately effective indicator for distinguishing PD-pRBDs from HCs (AUC =0.798, sensitivity =100%, specificity =42.86%). The z-DC values of the right precentral gyrus provide poor discrimination between PD-npRBD and HCs (AUC =0.563, sensitivity =50%, specificity =60%). ROC, receiver operating characteristic; PD, Parkinson's disease; PD-pRBD, Parkinson's disease with probable rapid eye movement sleep behavior disorders; PD-npRBD, Parkinson's disease without probable rapid eye movement sleep behavior disorders; HCs, healthy controls; AUC, area under the curve; SVM, support vector machine; DC, degree centrality.

Table S1 ROC analyses for differentiating different groups

Brain regions	Accuracy (%)	Sensitivity (%)	Specificity (%)	Youden index (%)	AUC
Precentral_R					
Separating PD-pRBD from PD-npRBD	84.6154	66.67	100	66.76	0.905
Separating PD-pRBD from HCs	69.2358	100	42.86	42.86	0.798
Separating PD-npRBD from HCs	53.8462	50	60	10	0.563

ROC, receiver operating characteristic; AUC, area under the curve; PD-pRBD, Parkinson's disease with probable rapid eye movement sleep behavior disorders; PD-npRBD, Parkinson's disease without probable rapid eye movement sleep behavior disorders; HCs, healthy controls; R, right.