

Supplementary Material

1 Supplementary Tables

Supplementary Table 1. Group differences in mean ALFF values of the distinguished regions (mean $\pm$ SD)

Cluster	PSD	Non-PSD	p-value
Cluster 1	1.05 $\pm$ 0.19	1.23 $\pm$ 0.25	0.012
Cluster 2	1.08 $\pm$ 0.19	1.35 $\pm$ 0.17	<0.001
Cluster 3	1.40 $\pm$ 0.16	1.65 $\pm$ 0.29	0.002

ALFF, amplitude of low-frequency fluctuation; PSD, post-stroke depression; non-PSD, stroke patients without depression.

Table 2. Regions exhibiting between-group differences in dALFF variability in 50 TRs window length with 20 TRs step size.

Clusters/Brain regions	Peak MNI coordinates (X, Y, Z)	Cluster size	Peak T-values
Cluster 1	(54, -63, -6)	433	-4.5166
Temporal_Inf_R (aal)		62	
Lingual Gyrus		63	
Calcarine_R (aal)		41	
Cluster 2	(45, -60, 48)	208	-3.4203
Parietal_Inf_R (aal)		65	
Parietal_Sup_R (aal)		79	

The threshold is set at voxel $p < 0.05$, cluster $p < 0.05$ for multiple comparisons using Gaussian random field (GRF) theory corrected. In each cluster, the first label represents the brain region where that peak voxel is located, and the second label is the sub-region within the same cluster.

MNI, Montreal Neurological Institute; AAL, automated anatomical labeling; Temporal_Inf_R, right inferior temporal gyrus;

Calcarine_R, right calcarine; Parietal_Inf_R, right inferior parietal gyrus; parietal_Sup_R, right superior parietal gyrus.

Table 3. Regions exhibiting between-group differences in dALFF variability in 60 TRs window length with 6 TRs step size.

Clusters/Brain regions	Peak MNI coordinates (X, Y, Z)	Cluster size	Peak T-values
Cluster 1	(54, -66, -6)	115	-4.2392
Temporal_Inf_R (aal)		62	
Cluster 2	(0, -81, 18)	144	-3.4203
Calcarine_L (aal)		66	
Cuneus_L (aal)		94	
Cluster 3	(45, -60, 48)	266	-4.1132
Parietal_Inf_R (aal)		95	
Parietal_Sup_R (aal)		81	

The threshold is set at voxel $p < 0.05$, cluster $p < 0.05$ for multiple comparisons using Gaussian random field (GRF) theory

corrected. In every cluster, the first label represents the brain region where that peak voxel is located, and the second label is

the sub-region within the same cluster.

MNI, Montreal Neurological Institute; AAL, automated anatomical labeling; Temporal_Inf_R, right inferior temporal gyrus;

Calcarine_L, left calcarine; Cuneus_L, left cuneus; Parietal_Inf_R, right inferior parietal gyrus; parietal_Sup_R, right

superior parietal gyrus.

2 Supplementary figures

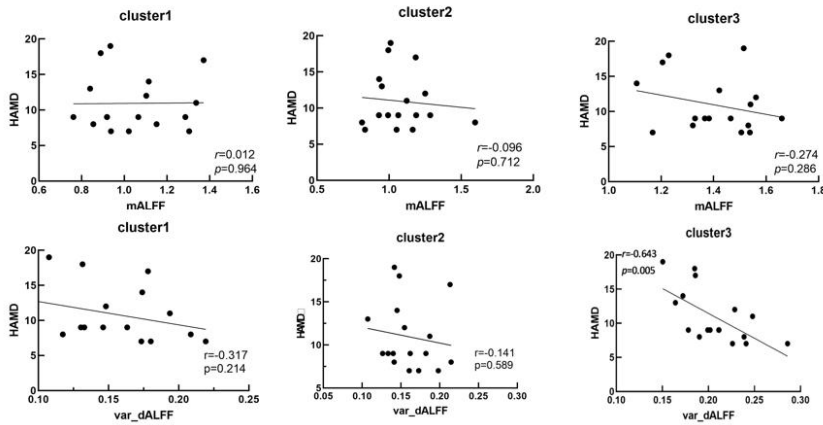


Figure 1. The correlation analysis between mean ALFF values and the dALFF variance in the distinguished regions (cluster 1, cluster 2, and cluster 3) and the HAMD score of PSD. Only the dALFF variance of the cluster 3 (right superior parietal gyrus, and right inferior parietal gyrus) was negatively correlated with HAMD scores of PSD patients. Cluster 1 was located in right lingual and left calcarine; cluster 2 was located in right inferior temporal gyrus; cluster 3 was located in right inferior parietal gyrus and right superior parietal gyrus. mALFF, mean amplitude of low-frequency fluctuation; var_dALFF variance.of dynamic amplitude of low-frequency fluctuation; HAMD, Hamilton Rating Scale for Depression .

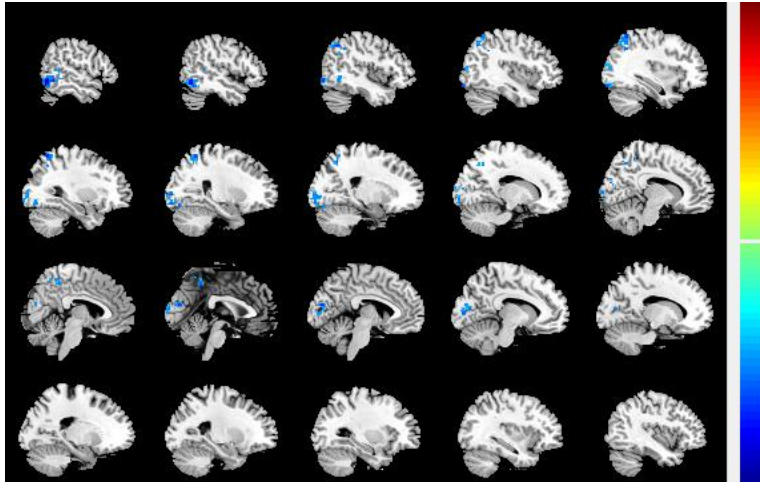


Figure 2. Brain regions exhibiting significant differences in dALFF variance in 50TRs window length with 20 TRs step size between the PSD and non-PSD groups ($p < 0.05$, corrected by GRF). Warm colors represent the significance of higher variances of dALFF values, while cool colors represent the significance of lower variances of dALFF values for the group comparisons. PSD, post-stroke depression; non-PSD, stroke patients without depression.

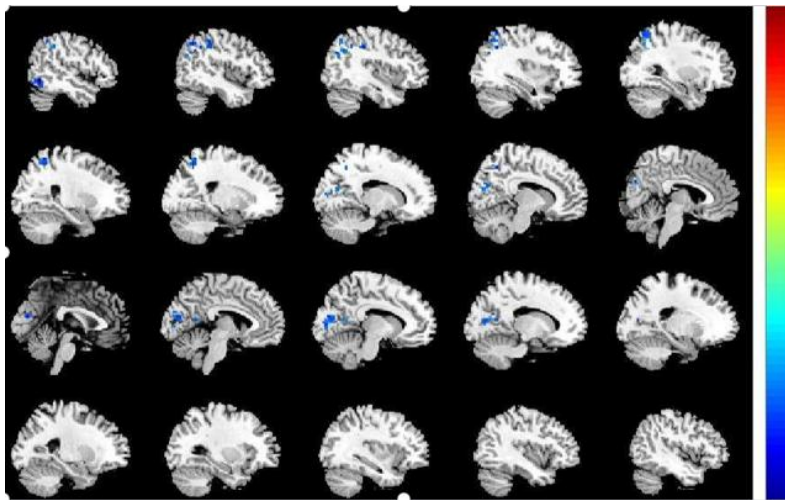


Figure 3. Brain regions exhibiting significant differences in dALFF variance in 60 TRs window length with 6TRs step size between the PSD and non-PSD groups ($p < 0.05$, corrected by GRF). Warm colors represent the significance of higher variances of dALFF values, while cool colors represent the significance of lower variances of dALFF values for the group comparisons. PSD, post-stroke depression; non-PSD, stroke patients without depression.