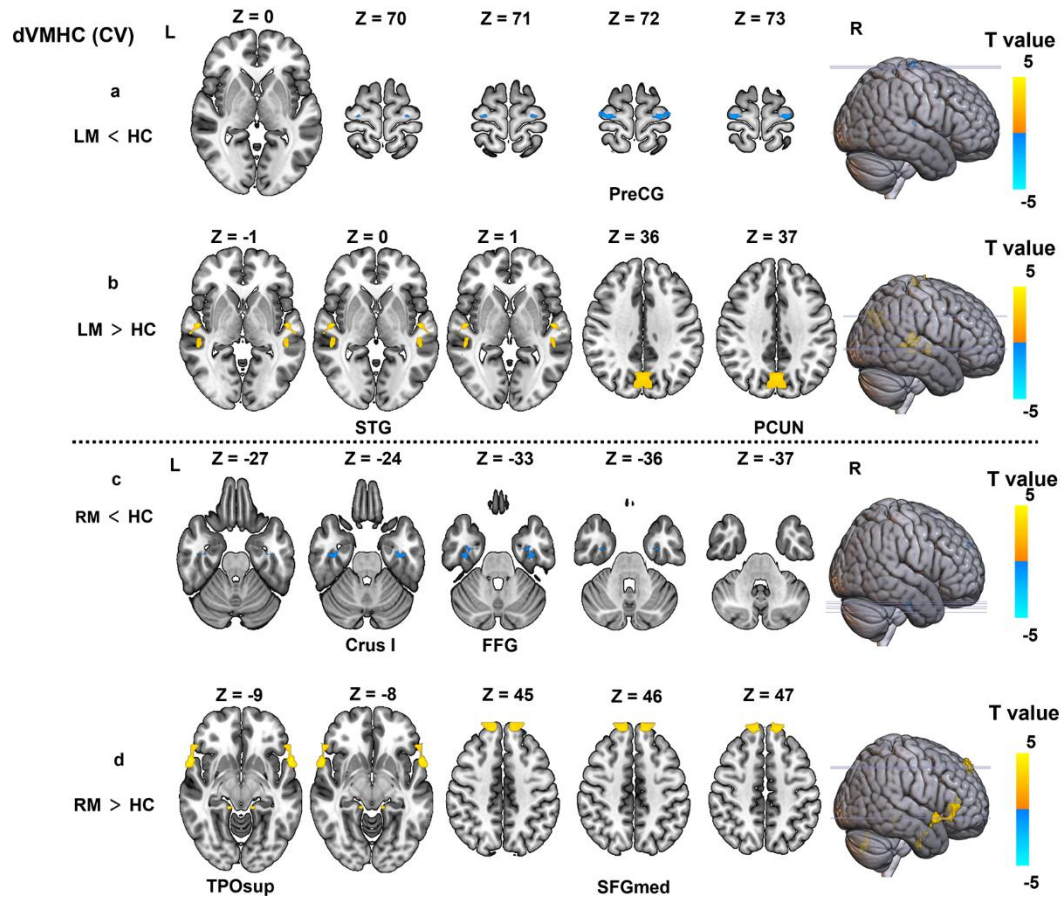




**Figure 1. dVMHC alterations in patients with LM and RM compared to HCs based on CV analysis.** (a) Brain regions showing decreased dVMHC (CV) in patients with LM compared to HCs; (b) Brain regions showing increased dVMHC (CV) in LM compared to HCs; (c) Brain regions showing decreased dVMHC (CV) in RM compared to HCs; (d) Brain regions showing increased dVMHC (CV) in RM compared to HCs. Abbreviations: LM, left-sided patients with migraine; RM, right-sided patients with migraine; HC, healthy control; CV, coefficient of variation; L, left; R, right; VMHC, voxel-mirrored homotopic connectivity; dVMHC, dynamic voxel-mirrored homotopic connectivity; PreCG, precentral gyrus; STG, superior temporal gyrus; PCUN, precuneus; Crus I, cerebellum\_Crus I; FFG, Fusiform gyrus; TPOsup, temporal pole: superior temporal gyrus; SFGmed, superior frontal gyrus, medial. Statistical significance was assessed at the voxel level with a threshold of  $P < 0.05$  and at the cluster level with a threshold of  $P < 0.05$  uncorrected for Gaussian Random Field (GRF).

**sTable1 Time interval between MRI scans and the recurrence of headaches for each patient with LM.**

| Subject ID | Headache Recur After MRI Scan (h) |
|------------|-----------------------------------|
| LM-001     | 43                                |
| LM-002     | 45                                |
| LM-003     | 48                                |
| LM-004     | 52                                |
| LM-005     | 56                                |
| LM-006     | 47                                |
| LM-007     | 50                                |
| LM-008     | 44                                |
| LM-009     | 58                                |
| LM-010     | 51                                |
| LM-011     | 54                                |
| LM-012     | 46                                |
| LM-013     | 53                                |
| LM-014     | 49                                |
| LM-015     | 55                                |
| LM-016     | 57                                |
| LM-017     | 44                                |
| LM-018     | 47                                |
| LM-019     | 52                                |
| LM-020     | 43                                |
| LM-021     | 50                                |
| LM-022     | 48                                |
| LM-023     | 56                                |
| LM-024     | 45                                |
| LM-025     | 53                                |
| LM-026     | 49                                |
| LM-027     | 51                                |
| LM-028     | 55                                |
| LM-029     | 44                                |
| LM-030     | 58                                |
| LM-031     | 46                                |
| LM-032     | 50                                |
| LM-033     | 54                                |
| LM-034     | 47                                |
| LM-035     | 52                                |

Abbreviations: LM, left-sided patients with migraine; h, hour.

**sTable2 Time interval between MRI scans and the recurrence of headaches for each patient with RM.**

| Subject ID | Headache Recur After MRI Scan (h) |
|------------|-----------------------------------|
| RM-001     | 41                                |
| RM-002     | 45                                |
| RM-003     | 48                                |
| RM-004     | 50                                |
| RM-005     | 53                                |
| RM-006     | 44                                |
| RM-007     | 47                                |
| RM-008     | 49                                |
| RM-009     | 52                                |
| RM-010     | 43                                |
| RM-011     | 46                                |
| RM-012     | 51                                |
| RM-013     | 45                                |
| RM-014     | 50                                |
| RM-015     | 48                                |
| RM-016     | 42                                |
| RM-017     | 53                                |
| RM-018     | 44                                |
| RM-019     | 47                                |
| RM-020     | 49                                |
| RM-021     | 52                                |
| RM-022     | 41                                |
| RM-023     | 46                                |
| RM-024     | 50                                |
| RM-025     | 48                                |
| RM-026     | 51                                |
| RM-027     | 43                                |
| RM-028     | 45                                |
| RM-029     | 53                                |
| RM-030     | 47                                |
| RM-031     | 49                                |
| RM-032     | 52                                |
| RM-033     | 44                                |
| RM-034     | 46                                |
| RM-035     | 50                                |
| RM-036     | 48                                |
| RM-037     | 51                                |
| RM-038     | 42                                |
| RM-039     | 45                                |
| RM-040     | 53                                |
| RM-041     | 47                                |
| RM-042     | 49                                |

Abbreviations: RM, right-sided patients with migraine; h, hour.

**sTable 3 dVMHC alterations in patients with LM and RM compared to HCs based on CV analysis.**

|               | Brain areas R/L | Cluster size voxels | Peak value | Peak coordinate (MNI) |     |     |
|---------------|-----------------|---------------------|------------|-----------------------|-----|-----|
|               |                 |                     |            | X                     | Y   | Z   |
| dVMHC LM < HC | PreCG           | 51                  | -2.98      | 27/-27                | -21 | 72  |
|               | STG             | 52                  | 3.15       | 51/-51                | -12 | 0   |
| dVMHC LM > HC | PCUN            | 40                  | 2.16       | 3/-3                  | -71 | 37  |
|               | Crus I          | 35                  | -2.20      | 21/-21                | -80 | -24 |
| dVMHC RM < HC | FFG             | 34                  | -2.91      | 33/-33                | -9  | -33 |
|               | TPOsup          | 53                  | 2.81       | 57/-57                | 12  | -9  |
| dVMHC RM > HC | SFGmed          | 48                  | 2.25       | 13/-13                | 52  | 46  |

Abbreviations: LM, left-sided patients with migraine; RM, right-sided patients with migraine; HC, healthy control; CV, coefficient of variation; L, left; R, right; dVMHC, dynamic voxel-mirrored homotopic connectivity; PreCG, precentral gyrus; STG, superior temporal gyrus; PCUN, precuneus; Crus I, cerebellum\_Crus I; FFG, Fusiform gyrus; TPOsup, temporal pole: superior temporal gyrus; SFGmed, superior frontal gyrus, medial. Statistical significance was assessed at the voxel level with a threshold of  $P < 0.05$  and at the cluster level with a threshold of  $P < 0.05$  uncorrected for Gaussian Random Field (GRF).