Supplementary Table 1. Relationship between preoperative seizure control and the ratio of preoperative to postoperative WMS-R subscale scores

|                     | Good seizure control (n=15) | Poor seizure control (n=8) | p-value |
|---------------------|----------------------------|----------------------------|---------|
| Verbal memory       | 1.071 (1.020–1.281)         | 1.076 (1.031–1.222)        | 0.9229  |
| Visual memory       | 1.048 (0.957–1.123)         | 1.031 (1.004–1.057)        | 0.6985  |
| General memory      | 1.097 (1.040–1.206)         | 1.063 (1.032–1.201)        | 0.6283  |
| Attention/concentration | 0.965 (0.914–1.069)     | 1.127 (1.077–1.147)        | 0.0569  |
| Delayed recall      | 1.127 (0.987–1.200)         | 1.079 (0.959–1.259)        | 0.7715  |

Each value describes the median and interquartile range. WMS-R: Wechsler Memory Scale-Revised
Supplementary Table 2. Comparison of temporal lobe lesion patients by WMS-R subscale score improvement

|                      | Verbal memory | General memory | Delayed recall |
|----------------------|---------------|----------------|----------------|
|                      | ≥10% improvement (n=6) | <10% improvement (n=7) | p-value | ≥10% improvement (n=6) | <10% improvement (n=7) | p-value | ≥10% improvement (n=6) | <10% improvement (n=7) | p-value |
| Age, years           | 35 (25–36) | 26.5 (22.2–34.2) | 0.1948 | 29 (24–35) | 33.5 (22.7–36) | 0.5168 | 35.5 (33.5–36) | 24 (17–29) | **0.0095** |
| Sex                  | Male         |                |          | Female       |                |          |                  |            |          |
|                      | 4            | 5              | 0.5921   | 3            | 5              | 0.2657   | 4                | 4            | 1       |
|                      | 2            | 2              |          | 4            | 1              |          | 3                | 2            |          |
| Pathology            | DA           |                |          | CCM          |                |          |                  |            |          |
|                      | 1            | 1              | 0.6503   | 1            | 1              | 1         | 1                | 1            | 0.3007  |
|                      | 3            | 2              |          | 3            | 2              |          | 4                | 1            |          |
|                      | 1            | 4              |          | 2            | 3              |          | 1                | 4            |          |
|                      | 1            | 0              |          | 1            | 0              |          | 1                | 0            |          |
|                      |              |                |          |              |                |          |                  |            |          |
| Days                 | 196 (52–681)| 213 (93–533.5) | 0.9431   | 188 (111–516)| 245 (46.2–1109) | 0.721   | 238 (39–586) | 155 (96.2–390.7)| 0.8303  |
| Pre-op days          | 38 (25.5–181.2)| 45 (30–76) | 0.7210   | 42 (29–76) | 40 (25.2–74) | 0.9431   | 42 (29–47) | 49.5 (26.2–83) | 0.7210  |
| Laterality of surgery| Left         |                |          | Right        |                |          |                  |            |          |
|                      | 3            | 5              | 0.5921   | 4            | 4              | 1         | 3                | 5            | 0.2657  |
|                      | 3            | 2              |          | 3            | 2              |          | 4                | 1            |          |
| Invasion of hippocampus| (+)       |                |          | (-)          |                |          |                  |            |          |
|                      | 2            | 2              |          | 2            | 2              | 1         | 1                | 3            | 0.2657  |
|                      | 4            | 5              |          | 5            | 4              |          | 6                | 3            |          |
| MTLR                 | (+)          |                |          | (-)          |                |          |                  |            |          |
|                      | 2            | 1              | 0.5594   | 2            | 1              | 1         | 1                | 2            | 0.5594  |
|                      | 4            | 6              |          | 5            | 5              |          | 6                | 4            |          |
| Number of ASMs       | 1            | 6              | 0.1923   | 7            | 3              | 0.0699   | 6                | 4            | 0.5594  |
|                      | 2            | 0              |          | 0            | 3              |          | 1                | 2            |          |
| Pre-seizure control  | Good         |                |          | Poor         |                |          |                  |            |          |
|                      | 4            | 2              | 0.2861   | 5            | 1              | 0.1026   | 4                | 2            | 0.5921  |
|                      | 2            | 5              |          | 2            | 5              |          | 3                | 4            |          |
| Seizure outcome      | Good         |                |          | Poor         |                |          |                  |            |          |
|                      | 6            | 6              | 1        | 7            | 5              | 0.4615   | 6                | 6            |          |
|                      | 0            | 1              |          | 0            | 1              |          | 1                | 0            |          |

Each value describes the median and interquartile range. WMS-R: Wechsler Memory Scale-Revised, Days: number of days from the first epileptic seizure to surgery, Pre-op days: number of days from the first outpatient consultation at our hospital to surgery, DA: diffuse astrocytoma, CCM: cerebral cavernous malformation, GG: ganglioglioma, OG: oligodendroglioma, MTLR: medial temporal lobe resection, ASM: antiseizure medication, Pre-seizure control: preoperative seizure control.
Supplementary Table 3. Differences in ratios of preoperative to postoperative WMS-R subscale scores between patients with temporal lobe lesions in the left versus right hemispheres

|                          | Left (n=8)               | Right (n=5)               | p-value |
|--------------------------|--------------------------|---------------------------|---------|
| Verbal memory            | 1.063 (1.029–1.235)      | 1.189 (1.069–1.260)       | 0.4208  |
| Visual memory            | 1.046 (1.017–1.114)      | 0.957 (0.902–1.214)       | 0.3413  |
| General memory           | 1.077 (1.037–1.204)      | 1.11 (1.031–1.261)        | 0.7144  |
| Attention/concentration  | 1.120 (1.047–1.147)      | 1.069 (0.875–1.145)       | 0.5101  |
| Delayed recall           | 1.054 (0.976–1.300)      | 1.146 (1.005–1.272)       | 0.8262  |

Each value describes the median and interquartile range. WMS-R: Wechsler Memory Scale-Revised