# 研究業績　英文表記

| 和文 | |
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| 表題 | デフォルトモードネットワークと注意機能に関する脳波信号の相関 |
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| 英文 | |
| Title | Electroencephalogram Signal Correlations between Default Mode Network and Attentional Functioning |
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| Abstract | Attentional issues may affect acquiring new information, task performance, and learning. Cortical network activities change during different functional brain states, including the default mode network (DMN) and attention network. We investigated the neural mechanisms underlying attentional functions and correlations between DMN connectivity and attentional function using the Trail-Making Test (TMT)-A and -B. Electroencephalography recordings were performed by placing 19 scalp electrodes per the 10‐20 system. The mean power level was calculated for each rest and task condition. Non-parametric Spearman's rank correlation was used to examine the correlation in power levels between the rest and TMT conditions. The most significant correlations during TMT-A were observed in the high gamma wave, followed by theta and beta waves, indicating that most correlations were in the parietal lobe, followed by the frontal, central, and temporal lobes. The most significant correlations during TMT-B were observed in the beta wave, followed by the high and low gamma waves, indicating that most correlations were in the temporal lobe, followed by the parietal, frontal, and central lobes. Frontoparietal beta and gamma waves in the DMN may represent attentional functions. |
| keyword | Cortical Network Activities, Electroencephalography, Attention, Default Mode Network |

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