

# 学位論文審査結果の要旨

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<p>(学位論文審査結果の要旨)</p> <p>Brain magnetic resonance imaging and cognitive alterations after ablation in patients with atrial fibrillation</p> <p>【主論文審査結果の要旨】</p> <p>著者らは論文において下記の内容を述べている。</p> <p>Catheter ablation is an important non-pharmacological intervention for atrial fibrillation (AF), but its effect on the incidence of asymptomatic cerebral emboli and long-term effects on cognitive function remain unknown. We prospectively enrolled 101 patients who underwent AF ablation. Brain magnetic resonance imaging (MRI) (72 patients) and neuropsychological assessments (66 patients) were performed 1–3 days (baseline) and 6 months after ablation. Immediately after ablation, diffusion-weighted MRI and 3-dimensional double inversion recovery (3D-DIR) detected embolic microinfarctions in 63 patients (87.5%) and 62 patients (86.1%), respectively. After 6 months, DIR lesions disappeared in 41 patients. Microbleeds (MBs) increased by 17%, and 65% of the de novo MBs were exactly at the same location as the microinfarctions. Average Mini-Mental State Examination scores improved from <math>27.9 \pm 2.4</math> to <math>28.5 \pm 1.7</math> (<math>p = 0.037</math>), and detailed neuropsychological assessment scores showed improvement in memory, constructional, and frontal lobe functions. Ejection fraction, left atrial volume index and brain natriuretic peptide level improved from baseline to 3–6 months after ablation. Despite incidental microemboli, cognitive function was preserved 6 months after ablation.</p>			

心房細動アブレーションが心機能の改善を介して認知機能改善に寄与する可能性を前向きに研究した論文であり、学術上極めて有益であり、学位論文として価値あるものと認めた。

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