心房細動患者において未知の脳障害が認められた (Abstract 1358)

Swiss-AF：心房細動患者10人に4人は未知の脳障害を有している

Swiss-AF: Four out of ten patients with atrial fibrillation have unknown brain damage

脳卒中や一過性脳虚血発作の既往のない心房細動患者の10人に4人が、これまでに気付かなかった脳障害を有しており、これで認知症と心房細動の関連が説明できる可能性があるとのSwiss-AFスタディの初めての結果が、ESC Congress 2018 で発表された。最終解析には、脳卒中または一過性脳虚血発作の既往のない心房細動患者1,389人が含まれた。参加者の平均年齢は72歳であり、26% は女性であった。標準化された脳MRI画像の結果、41% の患者が少なくとも1種類の過去の未知の脳障害を有していた：15% は脳梗塞、19% は微小脳出血、そして16% はラクナ梗塞を有していた。

Full Text

Four out of ten patients with atrial fibrillation but no history of stroke or transient ischemic attack have previously unknown brain damage, according to the first results of the Swiss Atrial Fibrillation Cohort Study (Swiss-AF) presented at ESC Congress 2018.

"Our results suggest that clinically unrecognized brain damage may explain the association between dementia and atrial fibrillation in patients without prior stroke," said Co-Principal Investigator Professor David Conen of McMaster University, Hamilton, Canada.

Patients with atrial fibrillation have a significantly increased risk of stroke, which is why most are treated with oral anticoagulation. This increased stroke risk is probably the main reason why patients with atrial fibrillation also face an increased risk of cognitive dysfunction and dementia. However, the relationship between atrial fibrillation and dementia has also been shown among patients without prior strokes, meaning that additional mechanisms have to be involved.

Clarifying the mechanisms by which atrial fibrillation increases the risk of cognitive dysfunction and dementia is a first step towards developing preventive measures.

Swiss-AF is a prospective, observational study designed to pinpoint the mechanisms of cognitive decline in patients with atrial fibrillation. This analysis investigated the prevalence of silent brain damage in atrial fibrillation patients.

The study enrolled 2,415 patients aged over 65 years with atrial fibrillation between 2014 and 2017 from 14 centers in Switzerland. All patients without contraindications underwent standardized brain magnetic resonance imaging and the images were analyzed in a central core laboratory. Scans were available in 1,736 patients. Of those, 347 (20%) patients had a history of stroke and/or transient ischemic attack and were excluded from the analysis.

The final analysis included 1,389 patients with atrial fibrillation but no history of stroke or transient ischemic attack. The average age of participants was 72 years, and 26% were women. The scans showed that 569 (41%) patients had at least one type of previously unknown brain damage: 207 (15%) had a cerebral infarct, 269 (19%) had microbleeds, and 222 (16%) had lacunes.

"Four in ten patients with atrial fibrillation but no history of stroke or transient ischemic attack had clinically unrecognized 'silent' brain lesions," said Professor Conen. "This brain damage could trigger cognitive decline."

Most study participants (1,234; 89%) were treated with oral anticoagulants. Co-Principal investigator Professor Stefan Osswald of University Hospital Basel, Switzerland, noted that the cross-sectional analysis looked at the data at a single point in time and cannot address the question of whether the cerebral infarcts and other brain lesions occurred before or after initiation of oral anticoagulation. But he said: "The findings nevertheless raise the issue that oral anticoagulation might not prevent all brain damage in patients with atrial fibrillation."

Professor Conen said: "All Swiss-AF participants underwent extensive cognitive testing. These data will be analyzed to see whether patients with silent brain lesions also have impaired cognitive function." Collaborations with other study groups will help to sort out whether these findings are specific to patients with atrial fibrillation.

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