

#EHRA2019: BP control reduces risk of atrial fibrillation-associated dementia



A South Korean study of more than 196,000 patients with atrial fibrillation (AF) showed that blood pressure control in mid-life could reduce the risk of AF-associated dementia. The findings were presented at EHRA 2019, a congress of the European Society of Cardiology (ESC).

The study is the first of its kind to show that AF patients in their 50s and 60s can benefit from lowering their systolic blood pressure (SBP) to 120-129 mmHg, as compared to those with continuously high SBP over 140mmHg. Even study authors were "surprised" by the results.

"It was surprising. We all know that AF is associated with higher risk of dementia, but there was no certain way to protect against AF-associated dementia," said Dr. Daehoon Kim, a cardiologist at Yonsei University College of Medicine in Seoul and an author of the study. He added the study showed us one potential way to help mid-life patients minimise their risk by as much as 15 percent.

However, lowering blood pressure in patients over 70 years old may not have as big of an impact on dementia risk, Dr. Kim asserted.

AF, the most common sustained cardiac arrhythmia in the general elderly population, is a risk factor for stroke. It has also been associated with cognitive impairment and dementia, even in patients without a prior diagnosed stroke. In addition, previous studies have suggested that hypertension in mid-life increases the risk of dementia in later life, leading it to be included as a probable risk factor in dementia prevention guidelines.

Those studies however did not assess the effect of blood pressure change over time on dementia risk, Dr. Kim noted. For their study, Dr. Kim and colleagues used the Korean national health insurance service database to measure blood pressure in 196,388 patients over 50 years newly diagnosed with AF, dividing them into age groups 50-59, 60-69, 70-79 and over 80 years old. AF patients with hypertension and taking at least one antihypertensive medication at the time of AF diagnosis between 2005-2016 were included in this cohort study.

Among those with uncontrolled SBP over 140mmHg at initial AF diagnosis, the risk of dementia was compared according to their follow-up SBP control status (<120mmHg/120~129mmHg/130~139mmHg/140mmHg) in multivariable Cox models. Follow-up analysis of SBP and risk of dementia was calculated from the date of follow-up BP measurement to the date of dementia, death, or 31 December 2016 (end of study period), whichever came first. The mean follow-up duration was 5.0 years.

Blood pressure control <130mmHG was shown to lower the dementia risk with similar benefits for patients aged 50-59 and 60-69 with initially uncontrolled BP at the time of AF diagnosis.

"Proper anticoagulation and early cardiovascular risk factor modification, including high blood pressure and prevention of hypoglycaemia in diabetes patients, likely play an important role in reducing the risk of atrial fibrillation-associated dementia," Dr. Kim concluded.

Source: [European Society of Cardiology \(ESC\)](#)

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