

Editorial



Another Reason to Cut Down on Alcohol?

Hyeon Chang Kim , MD, PhD, FAHA

Department of Preventive Medicine, Integrative Research Center for Cerebrovascular and Cardiovascular Diseases, Yonsei University College of Medicine, Seoul, Korea



► See the article “Causal Association Between Alcohol Consumption and Atrial Fibrillation: A Mendelian Randomization Study” in volume 52 on page 220.

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Correspondence to

Hyeon Chang Kim, MD, PhD, FAHA

Department of Preventive Medicine,
Integrative Research Center for
Cerebrovascular and Cardiovascular Diseases,
Yonsei University College of Medicine, 50-1,
Yonsei-ro, Seodaemun-gu, Seoul 03722, Korea.
Email: hckim@yuhs.ac

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ORCID iDs

Hyeon Chang Kim 
<https://orcid.org/0000-0001-7867-1240>

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Having good lifestyle and behaviors is considered essential throughout the entire life course for a healthy life. As we age, it becomes more important to eat a well-balanced diet, exercise to maintain strength, flexibility and mobility, get enough high-quality sleep, and quit to stop or never start smoking. It is also recommended to reduce alcohol consumption in the elderly. As we age, our lean body mass and water content decrease, and our metabolism slows down. As a result, blood alcohol level remains higher and longer when we drink the same amount of alcohol.¹⁾ Drinking also increases the risk of falls, fractures, dementia, cancer, cardiovascular disease, and mental illness in the elderly.²⁾ Alcohol-induced loss of sensory, motor and cognitive function significantly reduces quality of life. Growing evidence suggests that excess alcohol consumption is associated with atrial fibrillation (AF), the most common form of arrhythmia. AF is a common condition in the elderly, and is associated with the risk of cardiovascular disease and death.³⁾ Indeed, many studies have shown that alcohol consumption is associated with the development or worsening of AF.⁴⁾⁵⁾ A meta-analysis of 7 cohort studies reports a linear dose-response relationship between alcohol and AF incidence.⁵⁾ One glass of alcoholic beverage per day was associated with an 8% higher relative risk of AF, according to this study. Alcohol drinking patterns and types of alcoholic beverages consumed are also important. Heavy drinking (more than 5 drinks at a time) and distilled drinks (liquors or spirits) are associated with a much higher risk.

In this issue of *Korean Circulation Journal*, Yang et al.⁶⁾ adds new evidence for a relationship between alcohol and AF. This makes an important contribution to understanding the impact of alcohol on the risk of AF. Despite the abundance of available evidence, the causal relationship between alcohol and AF remains unclear. This is because the confounding effects of various factors affecting drinking, such as socioeconomic characteristics, health behaviors, and comorbidities, cannot be completely controlled. Mendelian randomization (MR) research has recently received great attention as an alternative to overcoming the limitations of observational studies in causality assessment.⁷⁾ Yang et al.⁶⁾ conducted MR analysis within the Dong-gu Study, a community-based cohort study. They used alcohol dehydrogenase 2 (ALDH2) rs671 polymorphism as an instrumental variable, which affects drinking behavior but not directly on the risk of AF. They observed that genetically predicted alcohol consumption was significantly associated with AF, suggesting that alcohol may be causally associated with AF development.⁶⁾ This study also has limitations. There is

Data Sharing Statement

The data generated in this study is available from the corresponding authors upon reasonable request.

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the possibility of misclassification in measuring the intake of alcohol and the presence of AF. It is also necessary to ensure that all assumptions necessary for the MR study are well met. Alcohol and AF associations were observed only in men but not in women, and this discrepancy warrants further investigation. However, this study is significant in that it is a MR research conducted within a community-based cohort, which is rare in Korea.⁸⁾⁹⁾ We now have data from Korea suggesting that alcohol intake should be reduced to prevent AF and other cardiovascular diseases.

There is growing evidence that drinking alcohol has detrimental health effects, especially among older people. However, it is very difficult to establish a uniform recommendation for drinking.¹⁰⁾ Do we need more research to find people who are more sensitive to the health effects of alcohol? Do we need more research to determine safe alcohol intake levels? Should we better inform people about known health effects of drinking? Or should we create guidelines for safe consumption of alcohol to prevent cardiovascular disease based on the currently available evidence? Now our cardiology society has another new and challenging task.

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